A Cross-Comparative Analysis of Child Poverty Across Sub-Saharan Africa: The Case of Francophone and Anglophone African Countries

Cynthia L. Fonta*[1], Zoi Toumpakari[1] and David Gordon[1]

[1]School for Policy Studies, University of Bristol, 8 Priory Road, Bristol, BS8 1TZ, United Kingdom. (Emails: Dave.Gordon@bristol.ac.uk, Z.Toumpakari@bristol.ac.uk, cynthia.fonta@bristol.ac.uk)
*

Outline

- Research background
- Research questions
- Methodology
- Findings
- Policy implications

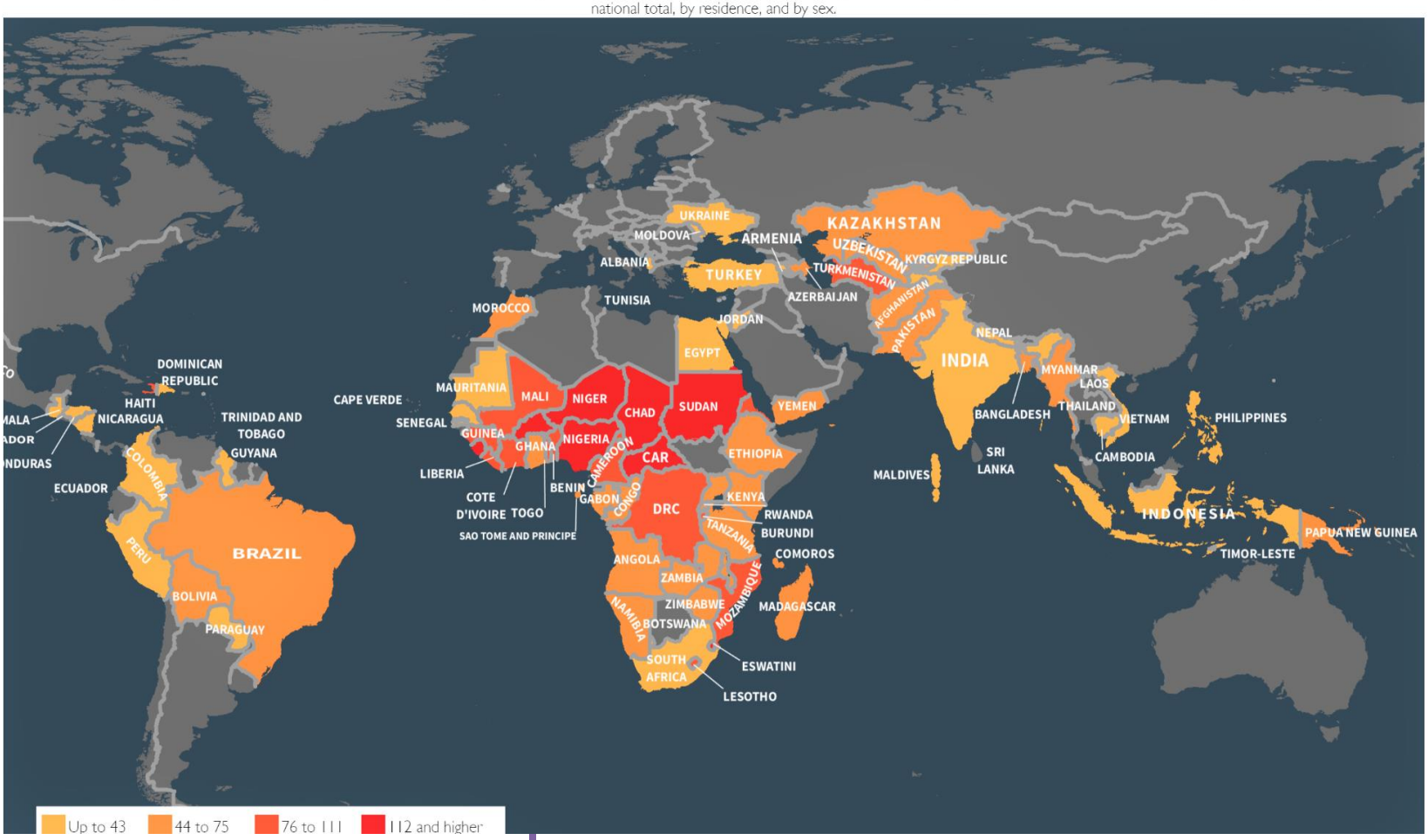
Research Background

The United Nations Convention on the Rights of the Child (UN CRC 1989)) and the African Charter on the Rights and Welfare of the Child (ACRWC 1990) have been instrumental in encouraging national governments and international partners to enhance children's living standards.

The conference of world leaders in Copenhagen defined poverty as:

'a condition characterised by severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter, education, and information. It depends not only on income but also on access to services.' (United Nations 1995a, p.38).

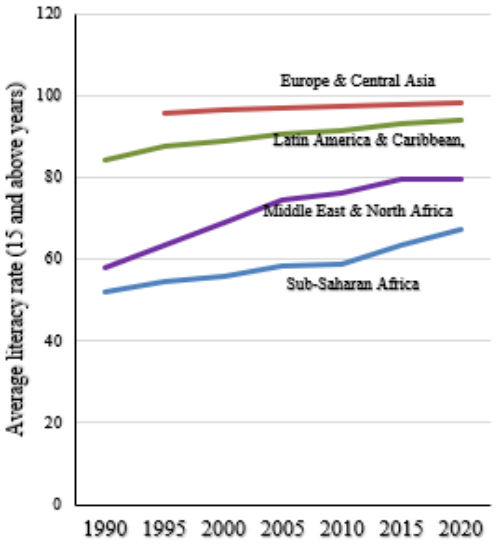
national total, by residence, and by sex.

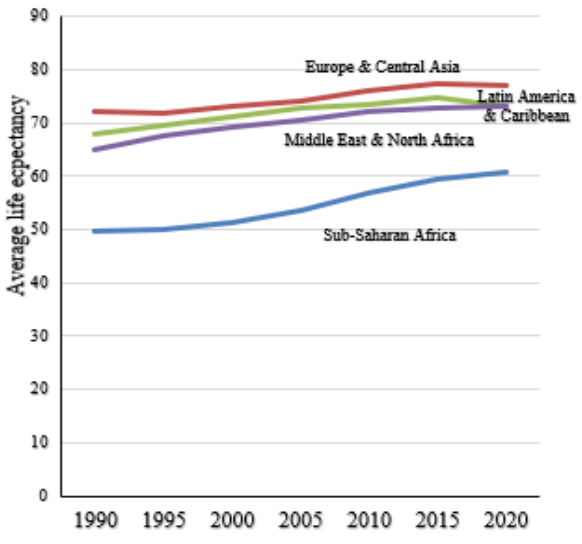


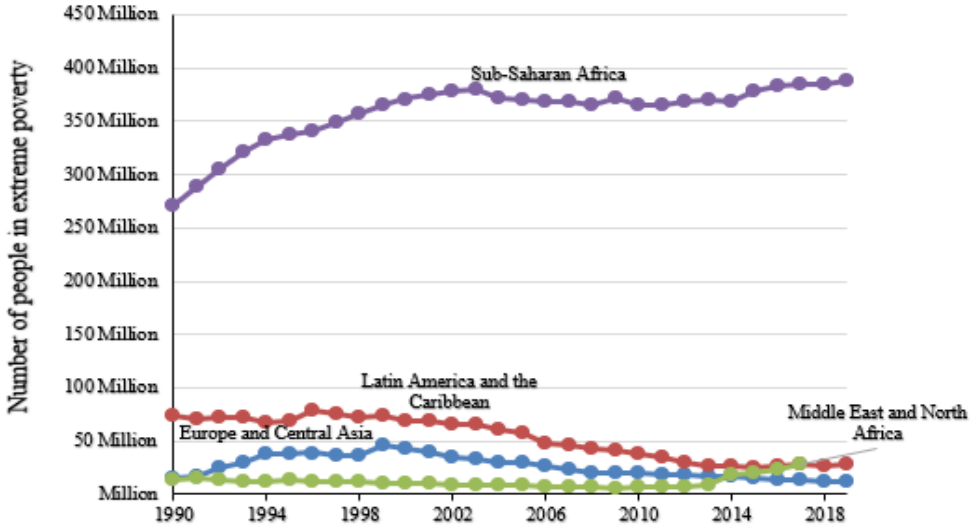
Under-five mortality rates

Source:DHS Statcompiler

Development Outcomes







Source: World Bank

Africa's slow progress in development, persistent poverty and rising inequalities

External factors: Colonial legacy- Direct and Indirect rule, neoliberal policies FDI, market liberalisation, economic dependency, urbanisation and resource extraction

Internal factors: Corruption, poor governance, conflicts, adoption of failed policies, tax mismanagement

The colonial legacy of direct and indirect rule of governance may have shaped Africa's development trajectory through strongly centralised and decentralised structures

Research questions

What is the extent of multidimensional deprivation and child poverty in Francophone and Anglophone states in SSA?

Are *within-country* disparities in child poverty narrower in Anglophone Africa than in Francophone Africa?

Methodology

Pooled data was drawn from DHS surveys, the Gallup World Poll, Baro et. al (2015) , and the WDI to answer the research questions.

We used the World Health Equity Assessment Toolkit plus (HEAT plus) to estimate regional and socioeconomic inequalities in child poverty

Methodology: An SDG-updated Gordon et al. (2003) methodology

Poverty dimensions	Child poverty=Moderate to severe deprivations.		
	Mild deprivations	**Moderate deprivations**	**Severe deprivations**
Water (SDG 6)	Primary water source: Improved source and collection time is 30 minutes or below from the source	Limited water source: improved, and collection time is more than 30 minutes from the source. Unimproved water sources	Drinking water directly from a river, dam, lake, pond, stream, canal, or irrigation canal
Sanitation (SDG 6)	Basic sanitation: Improved facility separating excreta from human contacts (pit latrines with slabs, ventilated improved pit latrines and composting toilets), and facility not shared with other households.	Limited sanitation: Improved facilities yet shared with two or more households. Unimproved toilet facilities, including latrines with no slabs, buckets or hanging toilets	Open defaecation in fields, forests, bushes, open bodies of water, beaches, and other open spaces or with solid waste
Dwelling (SDG 11)	At least one of the following items (floor, wall, or roof) is constructed using non-durable materials. Overcrowding with three persons per room	Two of the following items (floor, wall, or roof) were constructed using non-durable materials. Four persons per room	All three items (floor, wall, and roof) were constructed using non-durable housing materials. Dwelling lacks electricity Five and above persons per room.
Information (SDG 17)	Households lack one out of three items (mobile phone, radio or TV set	Households lack two out of three items	Households lack all three items.
Nutrition and food security (SDG 2)	Dietary diverse diets: Consumed four out of eight different food groups the previous day Mild food insecurity	Consumed three of the eight food groups the previous day Suffered at least one form of anthropometry failure Moderate food insecurity	Consumed two or fewer of the eight food groups (starvation) Suffered multiple forms of anthropometry failure Severe food insecurity
Health (SDG 3)	Missed out on one of the eight vaccines	Missed two-six vaccines	Received none of the vaccines. Received no medical treatment for diarrhoea, fever and cough
Education (SDG 4)	Incomplete secondary schooling	Incomplete primary schooling	No schooling

Research question one: Between-country child poverty assessment

We utilised ANOVA models to compare the mean child poverty levels between the two colonial origins. In cases where the dimensions and indicators did not adhere to the model's assumption of normality and equal group variance, we conducted a Kruskal-Wallis test to compare the median child poverty levels between Francophone and Anglophone countries.

We used risk ratios to quantifiably establish that Francophone children were poorer than their Anglophone counterparts.

University of BRISTOL

Research Question Two: Within-country inequality assessment

We disaggregated the data into subnational and administrative regions and used the Difference summary measure, a simple and absolute inequality measure, to estimate regional inequalities calculated as the differences in child poverty mean between subnational and administrative regions within each country.

D= $y_{subnational\ regions} - y_{administrative\ regions}$,

We ranked children from the least advantaged to the most advantaged wealth
by health and nutrition poverty indicators.

We used the relative index of inequality, which is calculated as the ratio of the
predicted child poverty mean for the most advantaged child (V1) to that of the le
advantaged (V0), denoted as RII = V1/V0.

Additionally, we calculated the absolute socioeconomic inequality using the slope index of inequalities, estimated as the difference in predicted child poverty means between the most advantaged child (V1) and the least advantaged child (V0).

$\mathrm{SII} = V_1 - V_0$.

We did regression analysis to determine which colonial origin produced the widest inequality gap, while controlling for urbanisation.

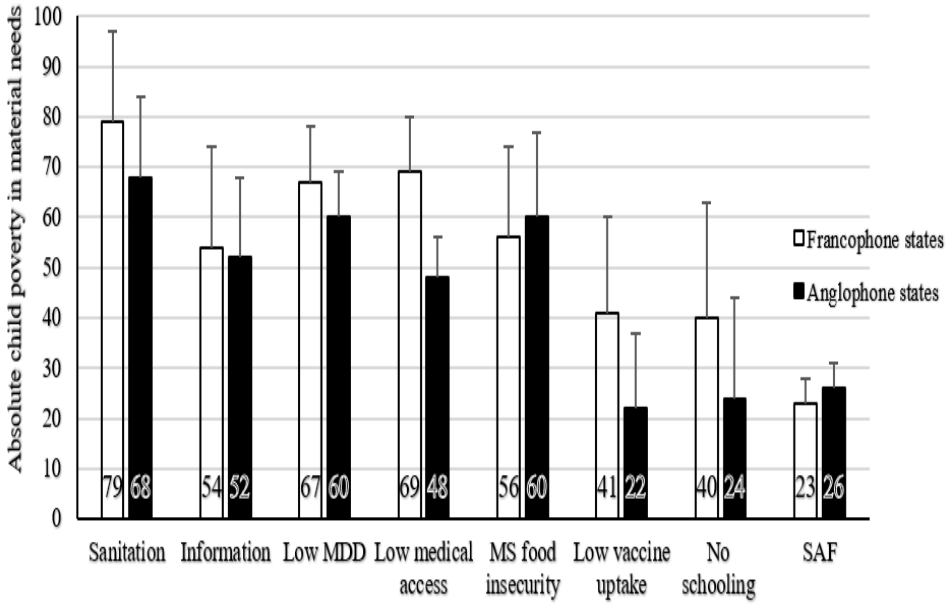
Weighted study characteristics by colonial origins

Household characteristics	Francophone states (%)	Anglophone states (%)	Total
N	480,784 (51%)	464,783 (49%)	945,487
Sex of household head			
Male	85	74	80
Female	15	26	20
Age of household head			
45 years and below	60	68	64
Above 45 years	40	32	36
Wealth quintiles			
Poorest	25	25	25
Poor	23	22	23
Middle	21	20	21
Rich	18	18	18
Richest	13	16	15
Mother's age			
15-35 years	64	63	64
Above 35 years	36	37	37
Number of children per mother			
One to four	42	50	46
Above four	58	50	54
Mothers' education status			
No formal education	67	26	47
Formal education	33	74	53
Mother's decision-making power			
Makes health care decision	38	67	53
Decides on a large purchase	56	73	65
Decides on relatives' visit	39	57	48
Child's age			
0-5 years	36	35	36
6-17 years	64	65	65
Child's gender			
Male	51	50	51
Female	49	50	50
Place of residence			
Urban	25	25	25
Rural	75	75	75

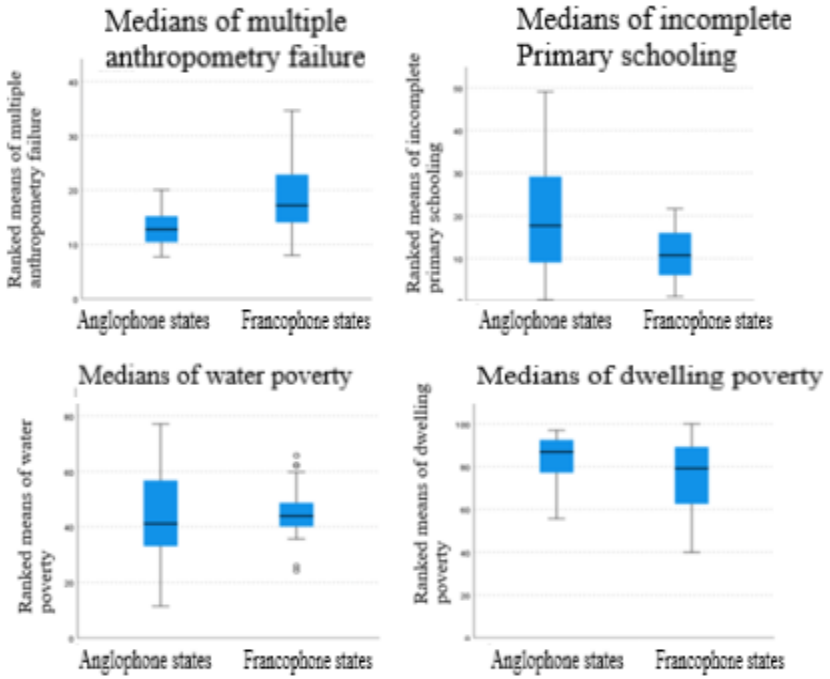
Source: DHS 2000-2019

University of BRISTOL

Child poverty mean differences between colonial origins

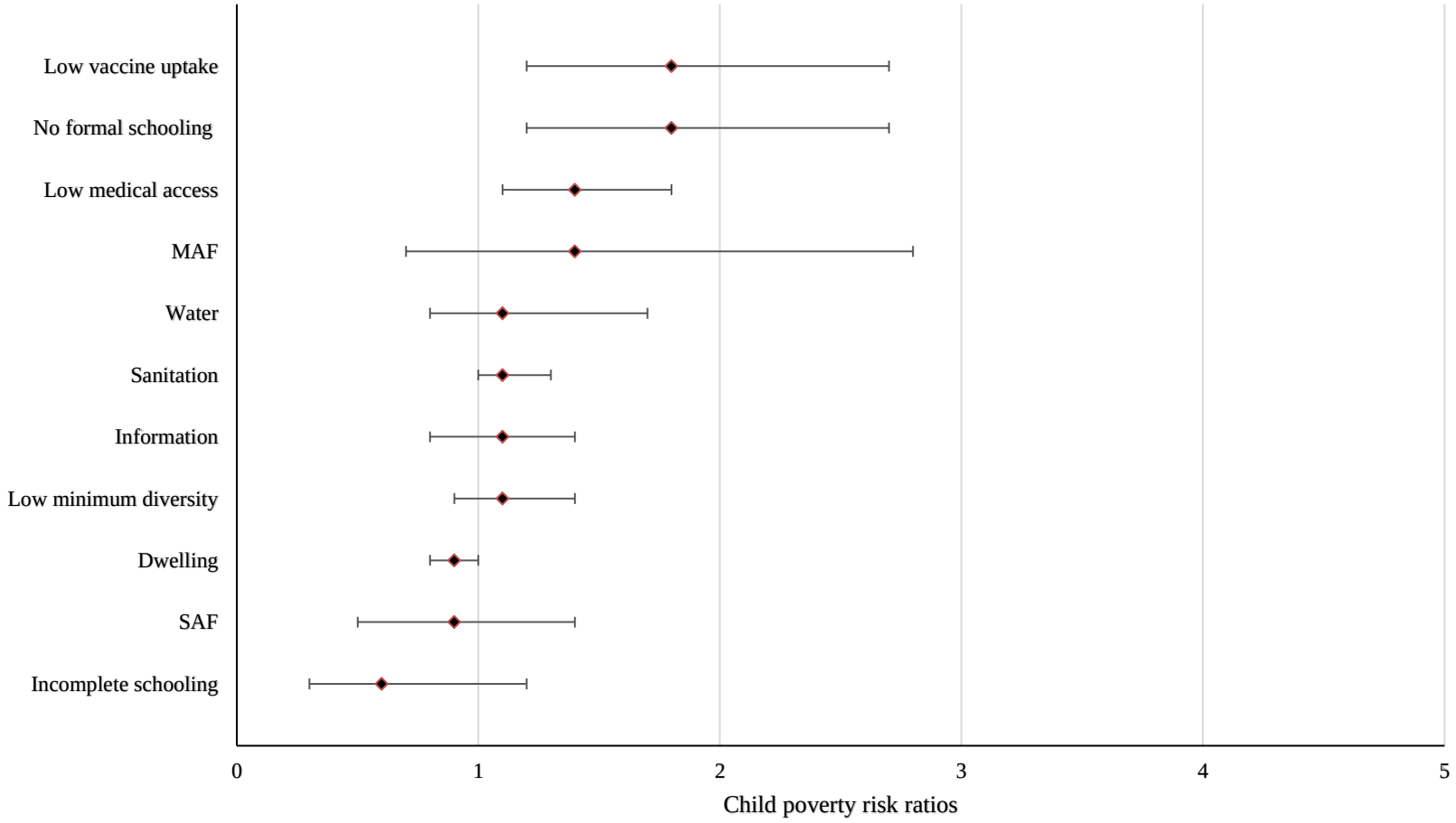


Child poverty median differences between colonial origins



MDD- Minimum dietary diversity
SAF- Single anthropometry failure
MS – Moderate and severe

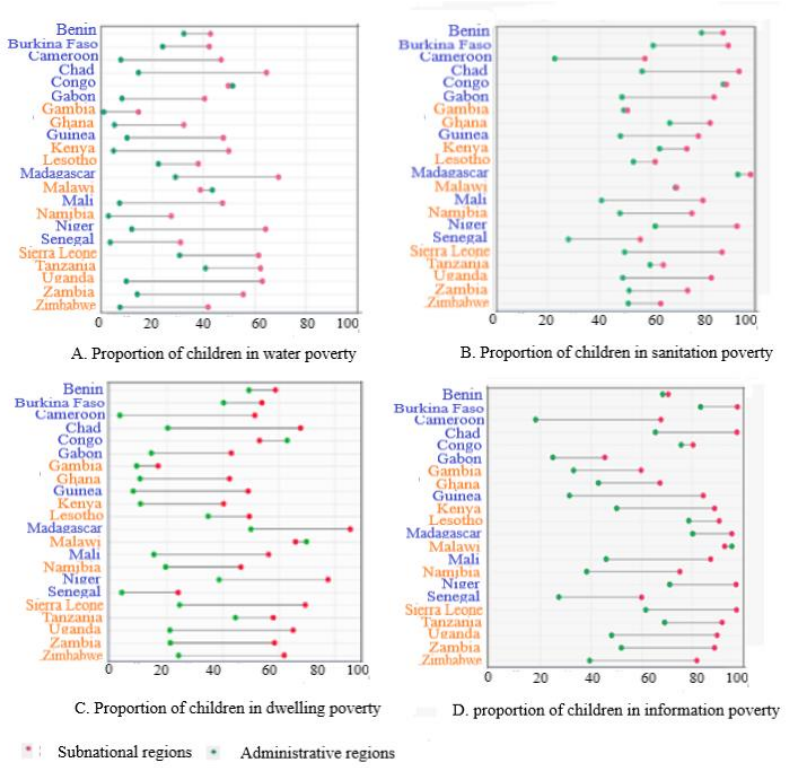
Risk Ratios of child poverty differences between colonial origins



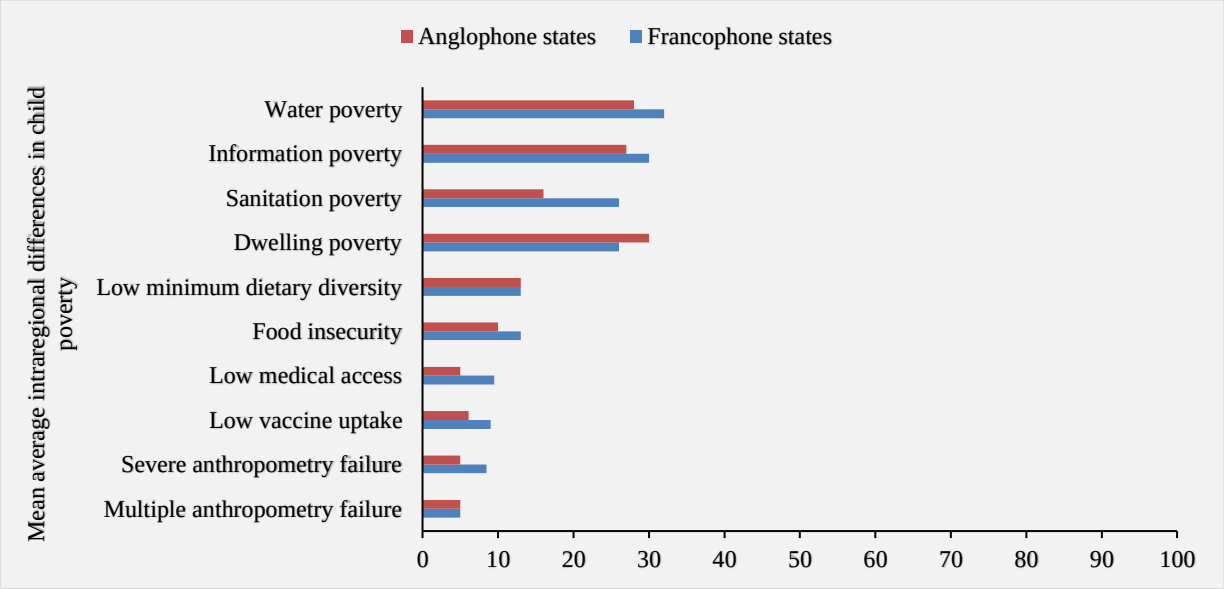
Regional inequalities in child poverty

Child-specific indicators

Household-related dimensions



Relationship between regional inequalities and colonial origin



Variables	Water	Sanitation	Dwelling	Information
Francophone states[c]	4 (-4.6, 12.5)	9.4* (1.4, 17.4)	-1.8 (-10.8, 7.1)	2.2 (-6.5, 10.9)
Urbanisation	-.3 (-.5, 0)	-.04 (-.3, .2)	-.01 (-.3, .3)	-.1 (-.4, .2)
Adjusted R^2	.2	.1	.03	.03

p<0.05 , Anglophone states[c] as base case*

Regression models with coefficients showing associations between RII/SII and colonial origins

RII and colonial origins

Variables	Low medical access	Low vaccine uptake	SAF	MAF	Low MDD	MS food insecurity
Francophone states[b]	-.2***	-.3**	-.06	.06	.1	.01
	(-.3, -.2)[a]	(-.4, .1)	(-.02, .1)	(-.04, .1)	(.02, .2)	(-.04, .07)
Urbanisation	.4***	.6*	-.5**	-.5**	.2	-.3*
	(.2, .6)	(.1, 1.2)	(-.8, .2)	(-.7, -.2)	(-.06, 0.4)	(-.5, .1)
Adjusted R^2	.5	.2	.2	.2	0.2	.1

****p<0.001, **p<0.01, *p<0.05, 95% [a]Confidence interval, [b]Anglophone states as base case*

SII and colonial origins

Variables	Low medical access	Low vaccine uptake	SAF	MAF	Low MDD	MS food insecurity
Francophone states[b]	15.5***	15.4***	-3.9	3.7*	-6.5*	-3.2
	(11.5, 19.5)[a]	(9.3, 21.4)	(-7.1, -.9)	(.9, 6.5)	(-12.5, -.4)	(-7.5, 1.0)
Urbanisation	-.2*	-.07	.1	.01	-.1	.2
	(-.3, -.1)	(-.3, .1)	(.02, .2)	(-.04, .1)	(-.3, -.06)	(.05, .3)
Adjusted R2	0.6	0.3	0.1	0.2	0.1	0.04

Result summary

A Francophone child was 1.4x more likely to lack medical access and almost twice as likely to have an incomplete vaccine schedule or lack formal education in contrast to an Anglophone resident.

Child poverty estimates in relation to household dimensions and nutrition indicators were similar between the two colonial contexts.

Socioeconomic inequalities in health were wider within Francophone states than within Anglophone states

Regional inequalities in child poverty were similar between the two colonial settings. However, regional inequalities across household dimensions were much wider in contrast to the health and nutrition indicators.

Increasing urbanisation reduced health inequalities while it increased nutritional inequalities

Policy implications/conclusion

There is a historical basis for variations in health and education differences between the two colonial origins. Francophone countries must transition from a centralised and politicised decentralisation system to an effective public service supply-driven decentralisation.

Colonial origins have little impact on the distribution of household and nutritional needs. Countries must prioritize good governance, transparent decentralization, and investment in water and sanitation services.

Preventing infectious disease spread requires absolute investment in water, sanitation, housing and information.

Urbanization is crucial for sustainable development. Incorporating agricultural areas into urban planning can help ensure food security and mitigate the adverse effects of urbanization.

Le Fin