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Résumé de l'article

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Rose Ingutia

Abstract: This paper examines the performance of key factors influencing the prospect of Africa’s poorest children avoiding being left behind in poverty by 2030 as required by the United Nation’s Agenda for Sustainable Development, a set of sustainable development goals (SDGs) declared in 2015. At that time, sub-Saharan Africa (SSA) was facing both rising debt and deterioration of the fiscal space required to provide resources. Quantitative methods employing descriptive analysis on secondary data are used in this study to compare the trend of child poverty, as represented by under-5 mortality rates (U5MR), both over time and between country clusters. U5MR was chosen because it is an indicator of the well-being of a nation’s children. Countries were “clustered” into quartiles based on their average U5MR between 2000 and 2018. The results indicate marked disparities in U5MR across SSA. No strong association was found between economic growth and U5MR, but good governance, as demonstrated by progress towards achieving the SDGs, correlates with decreases in both U5MR and the incidence of childhood stunting. In the first U5MR quartile, the SDG index score is over 50% in all child poverty indicators under consideration, whereas in the fourth quartile it is below 50%. SSA as a whole performed well in child poverty indicators from 2000 to 2015; however, consideration of the period from 2015 to 2018 suggests that much remains to be done to lift every child out of poverty. Within and across countries, critical areas for immediate attention include: improving sanitation and access to clean water and lowering the prevalence of anaemia and stunting; increasing the rates of exclusive breastfeeding, birth registration, and pre-primary enrolment; and reducing youth unemployment and socioeconomic disparities. Cash transfers to low-income families may help address the added economic insecurity due to COVID-19 that has left more children vulnerable to child marriage and child labour.

Keywords: vulnerable children, sustainable development goals, under-5 mortality rates, malnutrition, education

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Worldwide sustainable development goals (SDGs) were adopted in 2015 by the United Nations General Assembly with the aim of eradicating poverty and achieving sustainable development by 2030¹, and ensuring that no one is left behind in poverty by achieving a better and more sustainable future for all (United Nations General Assembly, 2015). At the inception of the 2030 sustainable development agenda, sub-Saharan Africa (SSA) had challenging development needs including rising debt and deteriorating fiscal space, which meant less money for necessary resources. A report by the SDG Centre for Africa (2019) on “Sustainable Development Goals: Three-Year Reality Check” revealed that, as a result of these challenges, there had generally been minimal progress. SSA’s rapid growth of the last two decades is presently fragile (Jayne et al., 2018), and below the SDG target of 7% per year. Although poverty has declined in Africa, it is nevertheless home to 27 of the world’s 28 poorest countries, all with poverty rates above 30% (World Bank, 2018, p. 27).

The International Labour Office (ILO; 2018) found that “a vast majority of the global poor live in rural areas and are poorly educated, mostly employed in the agricultural sector, and over half are under 18 years of age” (p. 10). The notion of poverty may be narrowly understood as a lack of income, but to some it denotes a lack of the basic needs of life (Sen, 1999). Sen (1999) regarded poverty “as the deprivation of basic capabilities rather than merely as lowness of income, which is the standard criterion of identification of poverty” (p. 87). Echoing Sen, our working definition of child poverty sees it as a deprivation of the capabilities essential for child development. Poor children are those exposed to economic, social, cultural, physical, and environmental risks, including income poverty, hunger, poor health, being out of school, child labour, discrimination, and marginalisation (Ingutia, 2017).

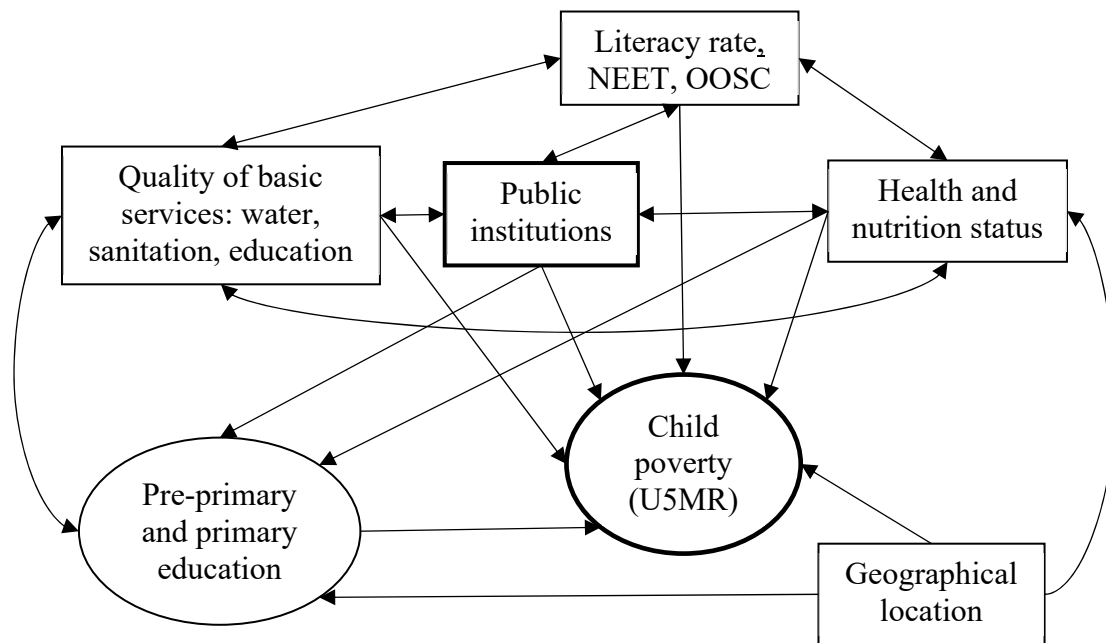
If one hopes to ensure that no one is left behind in poverty, why does it make sense to focus on child poverty in particular? Childhood poverty causes lifelong damage to children’s minds and bodies, giving rise to poverty in adulthood and propelling a poverty cycle when it is transmitted to the next generation. Childhood is a critical period for the investment and development of human and social capital: when children are healthy and receive good education, they are likely to become healthy, skilled, productive adults, and thereby to contribute to sustainable growth and poverty reduction (Luca & Gatti, 2018). The future of a nation in terms of prosperity, sustainability, and inclusive development is largely determined by the kinds of investment made in the lives of its children. The focus on child poverty also recognises that children in both developed and developing countries, including those of SSA (Batana et al., 2013), are at greater risk of poverty

¹The SDGs are: (1) no poverty; (2) zero hunger; (3) good health and well-being; (4) quality education; (5) gender equality; (6) clean water and sanitation; (7) affordable and clean energy; (8) decent work and economic growth; (9) industry, innovation, and infrastructure; (10) reduced inequalities; (11) sustainable cities and communities; (12) responsible consumption and production; (13) climate action; (14) life below water; (15) life on land; (16) peace, justice, and strong institutions; and (17) partnerships for the goals. See <https://sdgs.un.org/goals>.

than is the rest of the population. In 2020, 26% of people worldwide were under 14 (World Bank, 2021), yet, as of 2015, they made up 46% of extremely poor people (United Nations Statistics Division, 2019, p. 2, last paragraph). It being thus apparent that the goal of “leaving no one behind” in Africa demands a focus on child poverty, the objective of this paper is to examine the performance of the key factors in alleviating poverty among Africa’s poorest children.

As noted above, our definition of child poverty implies that, besides lack of money, child poverty involves complementary factors such as health, nutrition, water, sanitation, education, access to public institutions, and geographical location (Figure 1). The objective of this paper is to examine the performance of these key factors to assess Africa’s progress in addressing the needs of its poorest children. Monetary measures alone do not fully capture what it means for a child to be poor (Chzhen & Ferrone, 2017): in some instances health care and other services are not available even to people able to afford them. Thus access to these services also depends on the capacity and willingness of the state to provide them at all, let alone in a manner that ensures that poor children are not sidestepped. In its 2018 Ibrahim Index of African Governance (IIAG), the Mo Ibrahim Foundation (2018) defined governance as “the provision of the political, social and economic public goods and services that every citizen has the right to expect from their state and that a state has the responsibility to deliver to its citizens” (p. 7). Good governance in terms of child poverty implies the government’s fulfilment of its commitment to the rights of children by facilitating their access to the resources needed for developing their capabilities without being unduly constrained by financial hardship.

Figure 1. *Crucial Complementary Factors in Ensuring Africa’s Poorest Children Are Not Left Behind*



Note. NEET: youth not in employment, education, or training; OOSC: out-of-school children.

Figure 1 shows that public institutions play a central role in providing interrelated basic services. As explained in Ingutia (2017), poor institutional quality generates low institutional capacity and capability, which are expressed through a deficient supply of basic services including schools, health care, and such elements of infrastructure as roads, water, and sanitation. Governments' failure to adequately supply these services constrains children's access to good education and health care. For instance, a lack of access to improved water and sanitation facilities is often the beginning of a cascade of negative outcomes. It leads directly to poor health, which has negative impacts on education. Lack of access to education contributes to a lowering of the human capital available to the workforce. This deficiency in human resources in turn has negative effects on institutional quality, and results in a surplus of underqualified people with fewer possibilities of employment and access to only low-paying jobs. Low income results in families having to live in suboptimal locations as they cannot afford rent in higher-priced areas with better, more modern, amenities. Consequently, the health and education status of their children also suffers, completing the cycle of intergenerational poverty.

Methods and Data

The study uses a quantitative method with the application of descriptive statistics methods to secondary data from the World Bank's (2020b) World Development Indicators and, to a lesser extent, from IIAG's (Mo Ibrahim Foundation, 2018) reports on institutional quality and Sachs et al.'s (2019) SDG score indices. I chose these data sources because they gather data from internationally recognised authorities, including national statistical agencies and central banks, that have applied household survey methods for data collection. Unfortunately, methodological inconsistencies affect data reliability and comparability across SSA. Although the World Bank has made a substantial effort to standardise the data, the extent of this problem means that my attempts to indicate trends and identify significant variations across countries can produce only tentative results, not firm conclusions.

To meet this paper's objective of examining the performance of key factors in addressing poverty among Africa's poorest children, I first clustered countries based on averages of under-5 mortality rates (U5MRs) between 2000 and 2018, placing countries with the lowest rates in the first quartile and those with the highest rates in the fourth quartile (my reasons for clustering countries by U5MR and for the specified period are explained in the succeeding text, also see Table 2). I then:

1. Calculated averages of U5MRs across SSA countries in five 1-year periods from 2000 to 2018 (2000, 2005, 2010, 2015, and 2018).
2. Calculated SSA country averages and averages within each U5MR quartile of the performance of child poverty indicators in each period. The percentage change in child poverty indicators over time was calculated based on the averages of indicators across SSA.

3. The performance of child poverty indicators across U5MR quartiles was compared using the quartile averages.
4. To gauge the trends in child poverty indicators, the averages of the five periods were calculated (see Table 3).
5. Poverty headcount ratios among children aged 0 to 14 for the most recent year in which data were available (2008 to 2016) were compiled by country (see Table 4).
6. U5MR country clusters' goal scores, based on the SDG Index scores in child poverty-related SDGs as reported in 2018 (United Nations Statistics Division, 2018), were used to gauge how well each of the U5MR quartiles had progressed in child poverty indicators.

In examining the performance of the key factors that determine whether Africa's poorest children will remain in poverty, I use descriptive analysis to compare the trend of child poverty over time and between country clusters, based on U5MRs. Descriptive analysis is an appropriate analytical and communication tool for translating the raw data in findings and conclusions into a format helpful for all intended audiences (Loeb et al., 2017; Cielo et al., 2017), and can lead to an understanding of causal relationships and the mechanisms underlying them.

In Table 1, the figures for all variables, including U5MR, are averages across the 41 countries under study during 2000, 2005, 2010, 2015 and 2018. We use Pearson's correlation coefficient (r) to test the association between U5MR (our proxy for child poverty) and the selected child poverty indicators (Mukaka, 2012). A t -test is used to compare the averages of U5MR and the other variables, higher t values indicate that the coefficient is a good predictor. Since it is unknown whether the difference between the pairs of averages will be positive or negative, I chose a two-tailed test.

The notes accompanying all tables and figures explain the details. Analysis of the trends of child poverty over time and between U5MR country clusters reveals key information on children at risk of being left behind and the barriers they face.

Due to limitations on the availability of data, our sample consisted of only 41 of the 48 SSA countries; the list of the countries is in Appendix A (see Table A1). In 2015, the SDGs were announced with the purpose of updating and carrying forward the unfinished agenda of the Millennium Development Goals (MDGs), which had been set in 2000. Since the first seven SDGs represent an extension and regrouping of the MDGs², and are those of most relevance to child poverty issues, this paper presents data from 2000 (the starting year of MDGs) to 2018 (the latest year of SDGs for which data were available at the time of writing). The aim of this paper is to

²Like the MDGs before them, the SDGs define explicit targets for each goal. For instance, the first goal lists five "outcome targets" (e.g., Target 1.1, "eradication of extreme poverty") and two intermediate targets (e.g., Target 1.a, "mobilization of resources to end poverty").

establish the degree to which the 2030 Agenda for Sustainable Development set forth in the SDGs is benefiting Africa's poorest children. Are they on course to avoid being left behind in poverty by 2030?

We follow the SDGs in the selection of the variables under investigation. The SDG variable most relevant to this study is SDG-1, but since child poverty is multifaceted, we also touch on other goals. The full set of variables used in this study is as follows:

- SDG 1: Zero poverty;
- SDG 2: Zero hunger and improved nutritional status;
- SDG 3: Ensuring healthy lives, in particular Target 3.2, which aims to reduce U5MR to no more than 25 per 1,000 live births;
- SDG 4: Inclusive and equitable education, in particular Targets 4.2 (pre-primary education), 4.5 (gender parity index), and 4.6 (literacy rates);
- SDG 6: Availability and sustainability of water and sanitation for all, in particular Targets 6.2 and 6.3 (proportion of the population using safely managed sanitation and water);
- SDG 8, Target 8.6: Reduce the proportion of youth not in education, employment, or training; and
- SDG 16: Institutions, in particular Targets 16.6.1 (government expenditure by sector) and 16.9.1 (proportion of children under 5 whose births have been registered).

Our definition of child poverty suggests that childhood poverty means both monetary and deprivation poverty. We therefore apply measures of both types. Furthermore, studies, including Alkire (2018), have noted that monetary and multidimensional methods are complementary, and represent two alternative conceptions of poverty. The international poverty line, currently set at US\$1.90 a day, is derived from national poverty lines that are compatible with national poverty rates and displayed in equalised units. It thus serves as a universal standard to measure the number of people living in extreme poverty or, as in this paper, the percentage of children aged 0 to 14 who live in households experiencing extreme poverty.

U5MR is the probability, expressed as a rate per 1,000 live births, that a newborn baby will die before age 5 given current age-based mortality rates. U5MR has been chosen by the United Nations Children's Fund (UNICEF) as its single most important indicator of the state of children's well-being in each nation; for instance, UNICEF has summarised the state of children's well-being throughout the world in a table ranking nations in descending order of their U5MR (UNICEF, 2008, p. 113). Andrews et al. (2010) proposed the use of U5MR as an indicator of good governance.

We follow UNICEF (2008) and Andrews et al. (2010) in examining multidimensional child poverty in terms of U5MR. In addition, in Table 4 we report the multidimensional poverty index³ (MPI) by Alkire and Robles (2016). Disparities exist in indicators for child poverty across African countries. To address this, we have clustered country quartiles based on child mortality averages between 2000 and 2018 to compare the performance of respective U5MR clusters in child poverty indicators. Table 1 presents the variable definitions and summary statistics.

Table 1. *Variable Definition and Descriptive Summary Statistics*

Variable	Definition	<i>M</i>	<i>SD</i>	<i>r</i>	<i>t</i> (<i>p</i> <)
IIAG	Ibrahim Index of African governance (0% worst, 100% best)	50.14	0.14	-.64	8.45 (.001)
GDP per capita	Annual growth (%)	1.98	5.06	-.01	1.58 (.050)
U5MR	Mortality rate under 5 years (per 1,000 live births)	94.48	42.73		
Immunization, DPT	In children aged 12–23 months (%)	75.53	19.85	-.66	0.01
Internet access	Internet users (% of population)	8.44	11.94		
Government effectiveness	Scores (-2.5 to 2.5) in quality of public & civil services, & policies	-0.74	0.61	-.01	2.58 (.010)
Poverty	Headcount ratio at US\$1.90 a day (2011 PPP; % of population)	42.7	22.41	.61	1.17 (.100)
Births attended ^t	Births attended by skilled health staff (% of total)	63.14	24.02	-.63	8.92 (.001)
Child labour	Children in employment, total (% of children aged 7–14)	35.89	15.62	.57	4.51 (.001)
Children out of school	% of primary school age	22.2	16.67	.48	8.40 (.001)
Birth registration, total	% of children under age 5 whose births have been registered	56.66	24.26	-.40	1.47 (.100)
Health expenditure	% of GDP	5.51	2.41	.07	6.40 (.001)
Exclusive breastfeeding	% of children under 6 months	35.35	20.02	-.32	3.56 (.001)
Gov't expenditure/student, primary	% of GDP per capita	12.29	5.69		
Gov't expenditure/student, secondary	% of GDP per capita	24.23	12.96		
Income share held by highest 20%	Percentage share of income held by the richest 20%	50.49	7.08	-.25	3.80 (.001)
Income share held by lowest 20%	Percentage share of income held by the poorest 20%	5.69	1.57	.15	5.71 (.001)
Literacy GPI, youth	Gender parity index (GPI)	0.86	0.16		
Literacy rate, total	% of people aged 15–24	72.31	19.62	-.73	0.00
Access to basic water services	% of population	61.39	16.81	-.58	6.80 (.001)
Access to basic water services, rural	% of the rural population	47.28	18.05		

³According to Alkire and Robles (2016), “The MPI reflects both the incidence or headcount ratio (*H*) of poverty — the proportion of the population that is multidimensionally poor — and the average intensity (*A*) of their poverty — the average proportion of indicators in which poor people are deprived” (p. 4).

Variable	Definition	<i>M</i>	<i>SD</i>	<i>r</i>	<i>t</i> (<i>p</i> <)
Access to basic water services, urban	% of the urban population	82.36	9.12		
Access to basic sanitation services	% of population	31.52	21.58	-.56	3.68 (.001)
Access to sanitation services, urban	% of the urban population	41.73	18.20		
Access to sanitation services, rural	% of the rural population	21.98	19.34		
Population aged 0–14	% of total population	42.11	5.73		
Population living in slums	% of urban population	61.3	18.76	.49	3.34 (.001)
Anemia among children	% of children under 5	63.87	13.09	.66	1.47 (.100)
Stunting, height for age, total	% of children under 5	35.89	9.89	.42	1.41 (.100)
Underweight, weight for age	% of children under 5	19.37	7.74	.41	6.46 (.001)
Wasting, weight for height, total	% of children under 5	8.08	3.98	.31	3.34 (.001)
Primary completion rate, total	% of relevant age group	65.52	21.61	-.72	0.00
Pupil–teacher ratio, primary	The average number of pupils per teacher	42.11	13.70		
Repeaters, primary, total	% of total enrolment	13.66	8.10		
School enrolment, pre-primary	% gross	30.56	32.81		
NEET youth	% of the youth population	23.06	11.04		
Teenage mothers	% of women aged 15–19 who have children or are pregnant	24.68	9.51	.52	1.08 (.150)
Trained teachers, pre-primary	% of total teachers	56.46	27.90		
Trained teachers, primary	% of total teachers	77.97	19.80		
Child marriage	% of women aged 20–24 who were first married by age 15	10.75	7.39	.61	6.72 (.001)

Note. *r* and *t* are between U5MR and each variable. The mean values for U5MR and for each variable are averages across the 41 SSA countries under study. NEET = youth not in employment, education, or training. Source: World Development Indicators (World Bank, 2020b).

The data for the poverty variable on children aged 0 to 14 (headcount ratio at US\$1.90 a day) are from the most recent year available in the range 2008 to 2016; the same applies to the data on MPI (2005–2015). This kind of data fails to serve our purpose of gauging trends in child poverty indicators or of making comparisons across countries; thus it gives only an approximate idea of the percentages of children living in both income and multidimensional poverty.

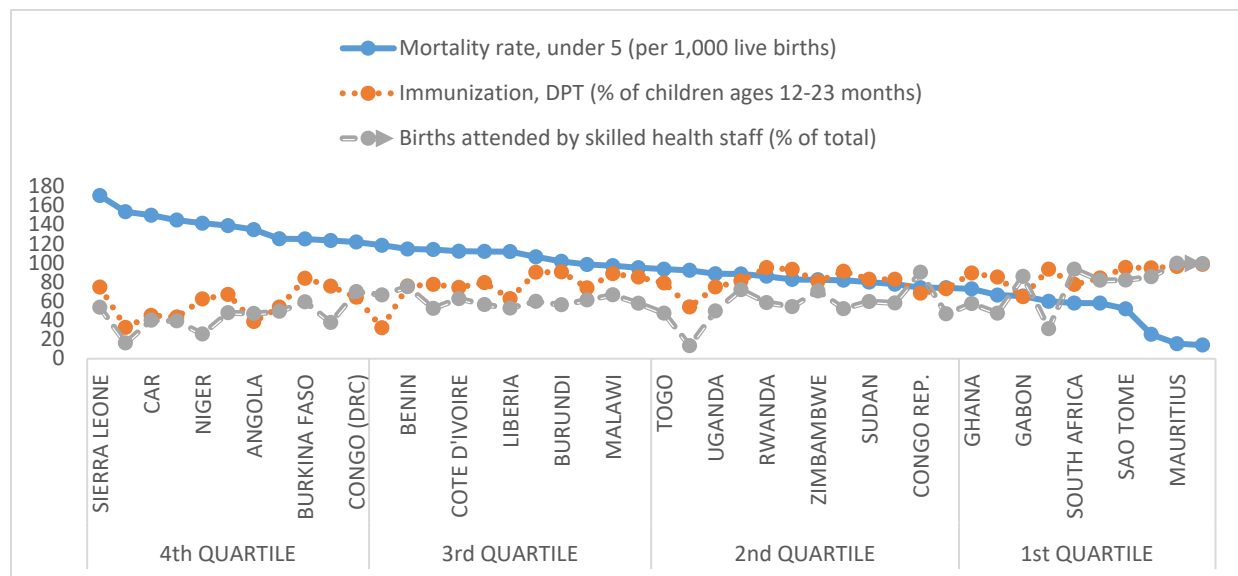
Results and Discussion

Results are presented under three subsections: Health and U5MR, Malnutrition, and Education.

Health and U5MR

Figure 2 portrays a line graph of U5MR, immunization, and births attended by skilled health staff. Countries in the first quartile with the lowest U5MR have the highest percentages of immunization and of births attended by skilled health staff. These findings point to the critical role of investing in health services in reducing U5MR.

Figure 2. Line Graph of U5MR, Immunization, and Births Attended by Skilled Health Staff

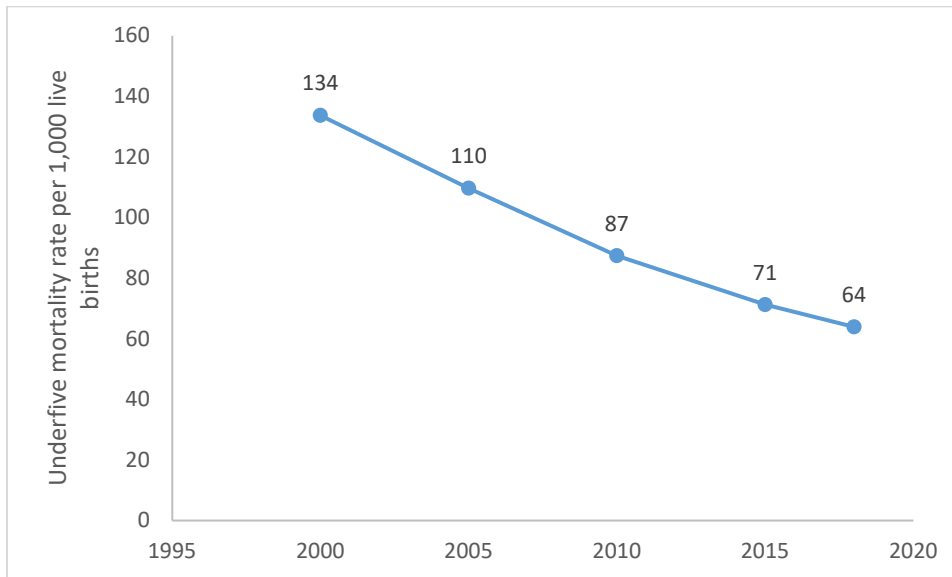


Note. Countries are clustered based on averages of U5MR between 2000 and 2018. Countries with the lowest child mortality rates belong to the first quartile, while those with the highest rates belong to the fourth quartile. Source: World Development Indicators (World Bank, 2019).

The variable “births attended by skilled health staff” is the percentage of deliveries attended by personnel trained to give the necessary supervision, care, and advice to women during pregnancy, labour, and the postpartum period. Data from the World Bank (2019) show that in 13 African countries the proportion of children born with the assistance of skilled health staff between 2000 and 2018 was less than 50%; this health deprivation exposes newborns and their mothers to health risks. Child immunisation measures the rate of vaccination coverage of children aged 12 to 23 months. A child is adequately immunised against diphtheria, whooping cough, and tetanus

(DPT) after receiving three doses of vaccine. The World Bank data (2019) show that countries with fewer than 50% of their children immunised are Equatorial Guinea (32%), Chad (33%), Angola (39%), Nigeria (43%), and the Central African Republic (CAR; 45%). Moreover, these countries are in the fourth U5MR quartile (except Equatorial Guinea at the bottom of the third quartile), where U5MR is at its highest and immunisation and births attended by skilled health staff are at their lowest; the reverse is true for first quartile countries.

Figure 3. *The Trend of Under-5 Mortality Rate (U5MR) Over Time (2000–2018)*



Note. Values are averages of U5MRs across African countries during the 2000 to 2018 period. Source: World Development Indicators (World Bank, 2019).

U5MR has declined steadily across Africa over the past two decades (see Figure 3). World Bank (2019) figures show that African countries reduced child mortality rates by 52% during the period 2000 to 2018 (Table 5). Between 2000 and 2018 Seychelles was the best performer with a U5MR of 14 while Sierra Leone was the worst performer with a U5MR of 170; the average U5MR during the period was 95. Can the wide gap between the best and the worst performer be explained by differences in either economic growth or institutional quality? Zimbabwe, Eritrea, and Gabon had negative growth rates during the period under study and yet in the same period saw impressive declining child mortality rates. Conversely, Sierra Leone, Chad, CAR, Nigeria and Angola, which are clustered in the fourth U5MR quartile, had positive growth but much less marked declines in child mortality rates. In Appendix 1 Table A1, however, comparisons of U5MR versus governance (as measured by institutional quality) indicate a strong negative association, implying that an improvement in institutional quality does correspond to decreasing child mortality rates; Sierra Leone, Chad, CAR, Nigeria, Angola, and Equatorial Guinea all average below 50% in institutional quality.

Table 2. Comparison of the Performance of Child Poverty Indicators Across U5MR Quartiles

Child poverty indicator	1st quartile	2nd quartile	3rd quartile	4th quartile
Mortality rate, under-5 (per 1,000 live births)	49	83	106	139
Births attended by skilled health staff (% of total)	76	56	60	44
Birth registration, urban	80	68	60	62
Birth registration, rural	67	52	45	39
Birth registration, total	77	57	51	47
Stunting, female	28	33	37	36
Stunting, male	33	37	43	41
Stunting, total	28	35	40	38
Underweight, male	17	21	20	26
Underweight, female	15	18	17	22
Underweight, total	14	19	19	24
Wasting, female	7	7	6	9
Wasting, male	8	9	7	11
Wasting, total	7	8	7	11
Immunization, DPT (% children aged 12–23 months)	88	80	80	58
Child labour, female	28	27	32	43
Child labour, male	30	32	34	45
Child labour, total	29	30	33	44
Child labour, study, and work, female	87	68	71	55
Child labour, study, and work, male	86	68	74	61
Literacy rate, youth male	93	78	74	63
Literacy rate, youth female	92	71	63	44
Literacy rate, youth total	92	75	68	53

Note. The table depicts averages during the 2000-2018 period of respective U5MR quartiles. Source: World Development Indicators (World Bank, 2019).

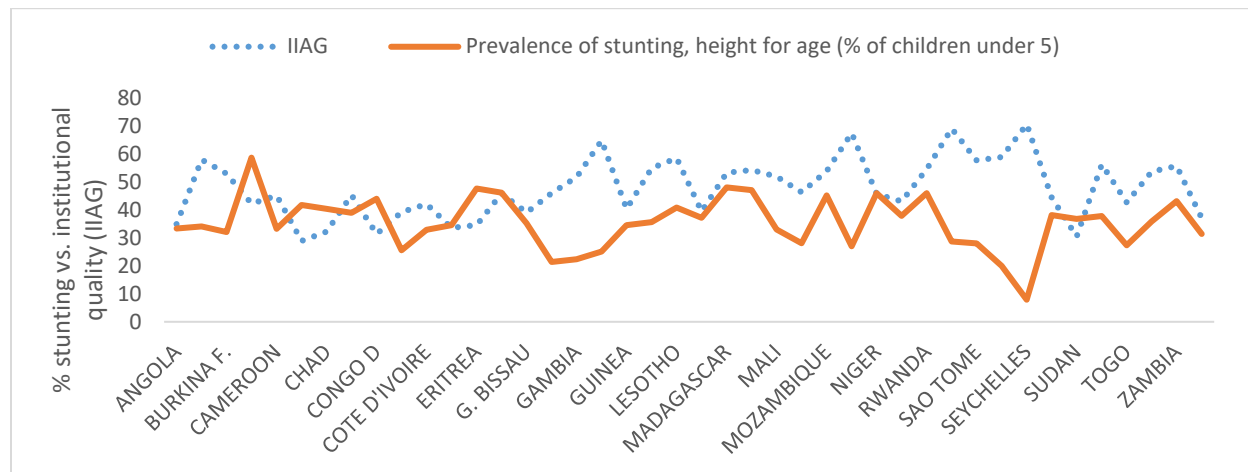
Having proof of birth registration is necessary for legal recognition — for claiming a child’s civil rights of legal access to basic services. Civil registration enables governments to plan the number of schools, health centres, and other services needed. Using World Bank (2019) figures, a comparison of average total rural and urban birth registration rates across U5MR quartiles indicates that the first U5MR quartile has the highest percentages of children under 5 whose births have been registered. Urban registration is higher than rural registration, but birth registration across African countries overall is low: 15 of the 41 countries have fewer than 50% of their children registered. Particularly low rates are found in Ethiopia (5%), Chad (12%) and Liberia (12%).

Malnutrition

Malnutrition is a consequence of limited dietary intake, often caused by household food insecurity, lack of safe drinking water, lack of knowledge of the basics of sanitation, and poverty. It can impede children’s development and affect their cognitive abilities and productivity in adulthood, contributing to continuing malnutrition and poverty on an intergenerational scale (Victora et al., 2008). Undernourished children are characterised by low height-for-age (stunting), low weight-for-height (wasting), and underweight-for-age. In their study of schoolchildren in rural Tanzania, Mrimi et al. (2022) noted that “malnutrition, anemia and micronutrient deficiency ... pose a significant health burden” (p. 1). According to the World Bank (2019), the prevalence of anaemia among African children under the age of 5 fell from 69% to 59% between 2000 and 2018 (see Table 3); Semedo et al. (2014) had similar results. Stunting, second in prevalence to anaemia, declined from 41% to 32% over the same period. Table 2 reveals that the first USMR quartile had the lowest percentages in all measures of child malnutrition status, suggesting that addressing malnutrition could contribute to a reduction in child deaths in Africa.

Exclusive breastfeeding (EBF) of infants until six months of age is an infant’s first immunisation against morbidity and mortality; furthermore, it represents a long-lasting investment in the child’s physical, cognitive, and social capacity that can open the way to an escape from poverty (Hansen, 2016). When the percentage of children who are exclusively breastfed rises, the percentage of stunted children typically declines (see Table 4); thus, EBF appears to play a role in minimising child malnutrition. Despite the critical role of EBF, its prevalence remains low: the average rate of EBF in Africa is 35% (see Table 1), and in some countries is much less (e.g., Chad, 3%; Gabon, 6% (World Bank 2019). Figure 4 compares institutional quality and prevalence of stunting, and shows that countries whose institutional quality is high tend to have low percentages of stunted children.

Figure 4. Comparison of Institutional Quality and Child Nutritional Status



Note. Country averages are based on the period 2000–2018. Source: World Development Indicators (World Bank, 2019) and IIAG (Mo Ibrahim Foundation, 2018).

Table 3. *Trends in Child Poverty Indicators in Africa From 2000 to 2018*

Child poverty indicator	2000	2005	2010	2015	2018
Exclusive breastfeeding (% of children under 6 months)	26	40	43	39	42
Stunting, female	39	37	36	31	28
Stunting, male	44	41	42	36	33
Stunting, total	41	41	39	33	32
Underweight, male	24	22	23	19	18
Underweight, female	20	19	20	16	15
Underweight, total	22	22	21	17	18
Wasting, female	9	8	7	6	6
Wasting, male	10	9	9	8	7
Wasting, total	9	9	8	7	7
Anemia among children	69	66	62	60	59
Access to water rural pop.	42	45	48	51	
Access to water urban pop.	80	81	83	85	
Access to water total	56	59	62	66	
Access to sanitation urban	38	40	42	45	
Access to sanitation rural pop.	18	20	23	25	
Access to sanitation total	26	29	32	35	
Enrolment, pre-primary, male	25	27	27	37	36
Enrolment, pre-primary, female	25	28	27	38	37
Enrolment, pre-primary	23	28	27	37	36
Primary completion, female	49	59	65	70	79
Primary completion, male	57	66	70	70	75
Pupil-teacher ratio, primary	45	44	44	38	37
Children out of school, female (% female Pri. school age)	42	27	25	25	16
Children out of school, male (% male Pri. school age)	36	24	21	21	15
Children out of school, total (% of primary school age)	34	24	21	19	12
Literacy rate, youth male (% of males aged 15–24)	80	50	78	79	82
Literacy rate, youth female (% of female aged 15–24)	69	28	72	70	78
Literacy rate, youth total (% of people aged 15–24)	74	38	75	74	80
Government expenditure per student, primary	14	12	11	12	14
Government expenditure per student, secondary	31	30	24	24	22
NEET, male	27	14	12	16	24
NEET, female	35	24	22	26	33
NEET, total	31	19	18	21	29
Income share held by highest 20%	51	53	53	51	50
Income share held by lowest 20%	5	5	6	5	6
Poverty headcount at \$1.90 a day	47	46	50	30	44

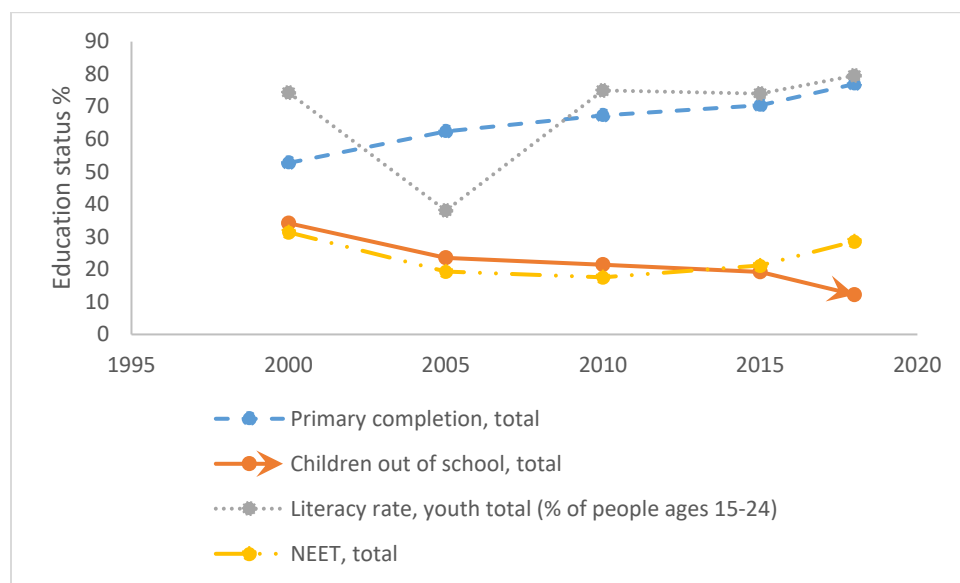
Note. The table depicts averages of child poverty indicators in Africa during the 2000 to 2018 period. Source: World Development Indicators, World Bank (2019).

Table 3, using data compiled by the World Bank (2019), shows that 49% of rural Africa but only 15% of urban Africa lacked access to safe water in 2015. Lack of access to sanitation also

remains a big challenge: although access to basic sanitation services in SSA rose between 2000 and 2015 (from 26% to 35%), only 25% of rural Africa and 45% of urban Africa had access to sanitation by 2015. The disparities between rural and urban Africa are very wide. Lack of access to adequate water and sanitation brings a significantly high risk of child mortality (Ezeh et al., 2014). For instance, open defecation contributes substantially to the transmission of diarrheal disease, which is known to be one of the major causes of U5MR (Galan et al., 2013).

Child marriage contributes to a high percentage of maternal and child morbidity and mortality (Malhotra et al., 2011). Child marriage denies a child the right to be educated, thereby limiting her development and life chances. The average incidence of child marriage is 11% (see Table 1); however, in some countries, including Chad and Niger, more than 30% of women were married by age 15 (World Bank, 2019). Human Rights Watch (2020) noted that economic insecurity due to COVID-19 exacerbates both child marriage and child labour, suggesting that cash transfers to low-income families could help avert the looming danger to vulnerable children.

Figure 5. *Percentage Total of OOSC, Primary Completion, Youth Literacy, and NEET*



Note. The figure presents SSA country averages for 2000 to 2018. Source: World Development Indicators, World Bank (2019).

Education

Lack of access to preschool education has profound effects on children, for the early years of life are crucial in developing a person's mental and physical health to their full potential (Martinez et al., 2012). The pace of pre-primary school enrolment is slow: in 2000, a mere 23% of African children of preschool age were enrolled in school and by 2018 this number had increased only to 36% (Table 3). Figure 5 depicts the trend of the percentage total of out of school children (OOSC), primary completion, youth literacy, and youth not in employment, education, or training (NEET). Primary school completion rates for both sexes are increasing, and at the present pace will likely

meet the 2030 SDG target of having all children complete primary school. Youth literacy rates fell in 2005, picked up between 2005 and 2010, and are on the rise. However, the rates of NEET declined initially but have been on the rise since 2015. Table 3 depicts that the percentages of OOSC were 34% in 2000 but had declined by more than half in 2018 (12%). Economically active children who are not going to school make up a large part of OOSC.

Working during school hours negatively affects school enrolment and learning outcomes. In Africa, the average child labour rate was 36% during 2000 to 2018 (Table 1). Child labour ranged from 29% in the first U5MR quartile to 44% in the fourth quartile, while children who were either studying or working were 80% and 56%, respectively, in these quartiles (Table 2).

There has been a long-standing disparity between the genders, with much higher percentages of females out of school; however, this gap has been narrowing gradually. Monden and Smits (2013) found that educating women contributes to the decrease of child mortality by improving mothers' knowledge and use of health practices. We had similar findings: the first U5MR quartile, with the lowest child mortality rates, had the highest female youth literacy rates; while the fourth quartile, with the highest child mortality rates, had the lowest female youth literacy rates (Table 2). Public expenditure is not evenly distributed across complementary education sectors: primary education receives less per student than secondary education does (Table 3). Ogawa (2004) reported similar findings for Zambia. Such disparities may be partly attributed to political considerations (Farayibi & Folarin, 2021). The efficiency of government education spending on primary and secondary education — the ratio of outcomes to spending — is, on average, lowest in SSA among world regions (African Development Bank, 2020).

Between 2000 and 2018, the average share of income held by the highest 20% was 51%, and that held by the lowest 20% was only 6% (Table 3). Such high levels of income inequality may further enhance the power of the elite, resulting in more limited provision of public goods and thereby hurting those in poverty through inadequate public health services and lower average education levels, leading to lower long-term GDP growth rates and increased social unrest. These negative effects are reflected in the high percentages of child poverty shown in Table 4. As noted elsewhere in this paper, good institutional quality is more effective in reducing U5MR than are GDP growth rates.

Table 4 presents the poverty headcount ratio and MPI⁴ for children aged 0 to 14 in each SSA country for which data were available. It is clear that much more needs to be done to bring every child on board.

⁴ People are said to be “multidimensionally poor” if deprived of at least a third of weighted indicators. The weighted indicators include: years of schooling, child school attendance, child mortality, nutrition, type of flooring in the home, ownership of basic modern assets, and availability of electricity, sanitation, safe drinking water, and cooking fuel. The first four indicators weigh one-sixth each (0.166), while the others weigh one-eighteenth each (0.055).

Table 4. *Children Ages 0–14 Headcount Ratio Most Recent Year (2008 to 2016)*

Country	0–14 yrs. poverty	MPI
Benin	56	62
Botswana	22	
Burkina Faso	81	84
Burundi	77	81
Cameroon	30	46
Central African Republic	71	78
Chad	41	87
DRC*	82	75
Congo Republic	45	40
Cote d'Ivoire	37	59
G. Bissau	71	78
Gambia	12	60
Ghana	17	34
Kenya	46	40
Madagascar	85	67
Malawi	76	56
Mali	54	78
Mauritania	7	52
Mozambique	69	70
Niger	81	89
Nigeria	62	53
Rwanda	63	54
Senegal	44	57
South Africa	49	11
Togo	57	50
Uganda	77	70

Note. Data on children aged 0 to 14 headcount ratio at US\$1.90 a day of the most recent year available (2008 – 2016) is from the SSAPOV database of PPP adjusted household surveys of African countries⁵, controlled by the sub-Saharan African Team for Statistical Development. The SSAPOV database draws on data from World Bank (2020a). Data on MPI (multidimensional poverty headcount ratio) most recent year (2005–2015) is from Alkire and Robles (2016).

*DRC = Democratic Republic of the Congo.

⁵ Data on the headcount ratio at US \$ 1.90 a day for children aged 0 to 14 was available for only 26 SSA countries.

Table 5. *Percentage Change in Child Poverty Indicators Over Time (2000–2018)*

Child poverty indicator	2000	2015	% change 2000–2015	2018	% change 2015–2018	% change 2000–2018
IIAG	47	51	8	51	1	9
U5MR per 1,000 live births	134	71	-47	64	-10	-52
GDP per capita growth	0.6	0.89	49	1.24	40	107
Poverty headcount at \$1.90	47	30	-37	44	48	-6
Immunization	62	80	29	81	2	31
Access to water	56	66	18			
Access to sanitation	26	35	34			
Exclusive breastfeeding	26	39	50	42	9	62
Stunting	41	33	-19	32	-3	-22
Underweight	22	17	-21	18	1	-18
Wasting	9	7	-24	7	-8	-22
Enrollment, preprimary	23	37	60	36	-2	57
Trained teachers in preprimary	62	61	-1	56	-9	-10
Primary completion	53	70	34	77	9	45
Pupil-teacher ratio, primary	45	38	-14	37	-3	-18
Trained teachers in primary	75	71	-6	82	15	9
Children out of school,	34	19	-44	12	-37	-65
Child labour	42	38	-9			
Govt. exp. per student, primary	14	12	-13	14	12	0
Govt. exp. per student, sec.	31	24	-21	22	-8	-29
Literacy rate, youth	74	74	0	80	8	8
Adolescents out of school	33	33	-1	29	-13	-12
NEET	31	21	-33	29	35	-6
Child marriage	9	12	37	9	-23	0
Teenage mothers	21	27	25	29	8	38
Individuals using the internet	1	20	2163	31	59	3000

Note. Percentage change in child poverty indicators over time is calculated from averages of respective indicators across Africa with data sourced from World Development Indicators (World Bank, 2019).

Table 5 presents child poverty indicators for 2000, 2015, and 2018, averaged across 41 SSA countries, and also shows the percentage change in these indicators between 2000 and 2015, and between 2015 and 2018. SSA performed well in nearly all child poverty indicators; however, the indicators make clear that much more needs to be done to bring every child on board.

Conclusion

The performance of the key factors influencing the prospect of Africa's poorest children avoiding being left behind in poverty suggests that at the present pace, the targets set in the SDGs will not be achieved by 2030. Based on the findings of this study, critical areas requiring immediate attention are sanitation, access to a safe water supply, the prevalence of anaemia and stunting, exclusive breastfeeding, birth registration, pre-primary school enrolment, innovations for youth employment, and economic and social disparities within and across countries. Our findings are comparable to those of Ohwo and Agusomu (2018), who concluded that lack of access to adequate water and sanitation in Africa exacerbates health problems.

Issues of public administration also affect the prospects for reducing child poverty. Expenditures favour secondary education over primary education, and income inequality levels remain high. Improvement in governance is crucial in leaving no child behind, particularly in the fourth U5MR quartile countries that lagged in SDG index scores across all child poverty indicators. Tebaldi and Mohan (2010) found that good institutions facilitate poverty reduction, whereas Kaidi et al. (2019) stated that the influence of institutions on poverty depends on the selection of indicators. Monetary and multidimensional measures of poverty can give markedly divergent results (see Table 4); this discrepancy is largest in Gambia (48%), Chad (46%), Mauritania (45%), and South Africa (38%). Thus, as Victor et al. (2014) also pointed out, policymakers need to consider both poverty measures in their decision-making.

Given that poverty is predominant in rural areas, lack of disaggregated data by geographic location makes it impossible to accurately identify from child poverty indicators the most critical regions to focus on in bringing all children on board. Despite this limitation, this paper's comparisons of the trend of child poverty over time and between U5MR country clusters give deep insights on children at risk of being left behind and the barriers they face. The findings can give policymakers a better understanding of child poverty for addressing disparities and targeting critical areas, narrowing the gaps to ensure that all children benefit from efforts to meet the SDG targets by 2030.

References

- African Development Bank. (2020). *African economic outlook 2020*.
<https://www.afdb.org/documents/publications>
- Andrews, M., Hay, R., & Myers, J. (2010). *Governance indicators can make sense: Under-five mortality rates are an example* [HKS working paper No. RWP10-015].
<https://research.hks.harvard.edu/publications/getFile.aspx?Id=541>
- Alkire, S. (2018). Multidimensional poverty measures as relevant policy tools [OPHI working paper 118]. University of Oxford. <https://ophi.org.uk/multidimensional-poverty-measures-as-relevant-policy-tools/>
- Alkire, S., & Robles, G. (2016). *Multidimensional poverty index - Winter 2016: Brief methodological note and results* [OPHI Briefing, No. 43]. Oxford Poverty and Human Development Initiative, University of Oxford. https://www.ophi.org.uk/wp-content/uploads/MPI_Method_Notes_43_Winter-2016.pdf
- Batana, Y., Bussolo, M., & Cockburn, J. (2013). Global extreme poverty rates for children, adults, and the elderly. *Economic Letters*, 120(3), 405–407. [doi:10.1016/j.econlet.2013.05.006](https://doi.org/10.1016/j.econlet.2013.05.006)
- Chzhen, Y., & Ferrone, L. (2017). Multidimensional child deprivation and poverty measurement: Case study of Bosnia and Herzegovina. *Social Indicators Research*, 131(3), 999–1014. [doi:10.1007/s11205-016-1291-8](https://doi.org/10.1007/s11205-016-1291-8)
- Ezeh, O. K., Agbo, K. E., Dibley, M. J., Hall, J., & Page, A. N. (2014). The impact of water and sanitation on childhood mortality in Nigeria: Evidence from Demographic Health Surveys 2003-2013. *International Journal of Environmental Research and Public Health*, 11(9), 9256–9272. [doi:10.3390/ijerph110909256](https://doi.org/10.3390/ijerph110909256)
- Farayibi, A. O. & Folarin, O. (2021). Does government education expenditure affect educational outcomes? New evidence from sub-Saharan African countries. *African Development Review*, 33(3), 546–559. [doi:10.1111/1467-8268.12588](https://doi.org/10.1111/1467-8268.12588)
- Galan, D. I., Kim, S.-S., & Graham, J. P. (2013). Exploring changes in open defecation prevalence in sub-Saharan Africa based on national level indices. *BMC Public Health*, 13(1) 1–12. <https://bmcpublichealth.biomedcentral.com/track/pdf/10.1186/1471-2458-13-527.pdf>
- Hansen, K. (2016). Breastfeeding: A smart investment in people and in economies. *The Lancet*, 387(10017), 416. [doi:10.1016/S0140-6736\(16\)00012-X](https://doi.org/10.1016/S0140-6736(16)00012-X)
- Human Rights Watch. (2020, April 9). *COVID-19 devastating impact on children: Governments should mitigate harm, protect most vulnerable*. <https://www.hrw.org/news/2020/04/09/covid-19s-devastating-impact-children>

Ingutia, A. R. (2017). Factors affecting child poverty in Sub Saharan Africa revisited with special reference to education and rural women 1990-2010 [Publication No. 67; Doctoral dissertation, University of Helsinki]. <http://urn.fi/URN:ISBN:978-951-51-3563-6>

International Labour Office. (2018, October 10-19). *Rural-urban labour statistics* [ICLS/20/2018/Room Document 3/Rev.3]. 20th International Conference of Labour Statisticians, Geneva. https://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/meetingdocument/wcms_636038.pdf

Jayne, T. S., Chamberlin, J., & Benfica, R. (2018). Africa's unfolding economic transformation. *The Journal of Development Studies*, 54(5), 777–787. [doi:10.1080/00220388.2018.1430774](https://doi.org/10.1080/00220388.2018.1430774)

Kaidi, N., Mensi, S., & Ben Amor, M. (2019). Financial development, institutional quality and poverty reduction: Worldwide evidence. *Social Indicators Research*, 141(1), 131–156. [doi:10.1007/s11205-018-1836-0](https://doi.org/10.1007/s11205-018-1836-0)

Loeb, S., Dynarski, S., McFarland, D., Morris, P., Readon, S., & Reber, S. (2017). *Descriptive analysis in education: A guide for researchers*. (NCEE 2017-4023). U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance. <https://files.eric.ed.gov/fulltext/ED573325.pdf>

Luca, F., & Gatti, R. (2018). *A primer on human capital* [Policy research working paper no. 8309]. World Bank. <https://ssrn.com/abstract=3105769>

Malhotra, A., Warner, A., McGonagle, A., & Lee-Rife, S. (2011). *Solutions to end child marriage: What the evidence shows*. International Centre for Research on Women. <https://www.healthynewbornnetwork.org/hnn-content/uploads/Solutions-to-End-Child-Marriage1.pdf>

Martinez, S., Naudeau, S., & Pereira, V. (2012). *The promise of preschool in Africa: A randomised impact evaluation of early childhood development in Mozambique*. The World Bank Group and Save the Children. <https://www.savethechildren.org/content/dam/global/reports/education-and-child-protection/ecd-report-2012-moz.pdf>

Mrimi, E. C., Palmeirim, M. S., Minja, E. G., Long, K. Z., & Keiser, J. (2022). Malnutrition, anemia, micronutrient deficiency and parasitic infections among schoolchildren in rural Tanzania. *PLoS Neglected Tropical Diseases*, 16(3), Article e0010261. [doi:10.1371/journal.pntd.0010261](https://doi.org/10.1371/journal.pntd.0010261)

Monden, C. W. S., & Smits, J. (2013). Maternal education is associated with reduced female disadvantage in under-five mortality in sub-Saharan Africa and southern Asia. *International Journal of Epidemiology*, 42, 211–218. [doi:10.1093/ije/dys201](https://doi.org/10.1093/ije/dys201)

- Mo Ibrahim Foundation. (2016). *2016 Ibrahim Index of African Governance (IIAG) Data Portal*. <https://iiag.online>
- Mo Ibrahim Foundation. (2018). *2018 Ibrahim index of African governance (Data set)*. <https://mo.ibrahim.foundation/sites/default/files/2020-05/2018-index-report.pdf>
- Mukaka, M. M. (2012). Statistics corner: A guide to appropriate use of correlation coefficient in medical research. *Malawi Medical Journal: The Journal of Medical Association of Malawi*, 24(3), 69–71.
- Ogawa, K. (2004). Public expenditure on education and resource management: Case of Zambia. *Journal of International Cooperation in Education*, 7(1), 133–143. [doi:10.15027/34207](https://doi.org/10.15027/34207)
- Ohwo, O., & Agusomu, T. D. (2018). Assessment of water, sanitation and hygiene services in sub-Saharan Africa. *European Scientific Journal*, 14(35), 1857–7881. [doi:10.19044/esj.2018.v14n35p308](https://doi.org/10.19044/esj.2018.v14n35p308)
- Sachs, J. D., Schmidt-Traub, G., Knoll, C., Lafortune, G., & Fuller, G. (2019). *Sustainable development report 2019*. Bertelsmann Stiftung and Sustainable Development Solutions Network (SDSN). <https://www.sdgindex.org/reports/sustainable-development-report-2019/>
- Sen, A. (1999). *Development as freedom*. Oxford University Press.
- Semedo, R. M. L., Santos, M. M. A. S., Baião, M. R., Luiz, R. R., & da Veiga, G. V. (2014). Prevalence of anaemia and associated factors among children below five years of age in Cape Verde, West Africa. *J Health Popul Nutr*. 32 (4), 646-657. [doi:10.3329/JHPN.V32I4.3021](https://doi.org/10.3329/JHPN.V32I4.3021)
- SDG Centre for Africa. (2019). Africa 2030: Sustainable development goals. Three-Year reality check. <https://sdgcafrica.org/wp-content/uploads/2019/06/AFRICA-2030-SDGs-THREE-YEAR-REALITY-CHECK-REPORT.pdf>
- Sharma, D. (2020). Achieving sustainable development nutrition targets: The challenge for South Asia. *Journal of Global Health*, 10(1), 1–4. [doi:10.7189/jogh.10.010303](https://doi.org/10.7189/jogh.10.010303)
- Tebaldi, E., & Mohan, R. (2010). Institutions and poverty. *The Journal of Development Studies*, 46(6), 1047–1066. [doi:10.1080/00220380903012730](https://doi.org/10.1080/00220380903012730)
- Victor, B., Blevins, M., Green, A. F., Ndatimana, E., González-Calvo, L., Fischer, E. F., Vergara, A. E., Vermund, S. H., Olupona, O., & Moon, T. D. (2014). Multidimensional poverty in rural Mozambique: A new metric for evaluating public health interventions. *PLoS ONE*, 9(9), e108654. [doi:10.1371/journal.pone.0108654](https://doi.org/10.1371/journal.pone.0108654)

Victora, C. G., Adair, L., Fall, C., Hallal, P. C., Martorell, R., Richter, L., & Sachdev, H. S., for the Maternal and Child Nutrition Study Group. (2008). Maternal and child undernutrition 2: Consequences for adult health and human capital. *The Lancet*, 371, 340–357.
[doi:10.1016/S0140-6736\(07\)61692-4](https://doi.org/10.1016/S0140-6736(07)61692-4)

World Bank. (2018). Poverty and shared prosperity: Piecing together the poverty puzzle.
<https://www.worldbank.org/en/publication/poverty-and-shared-prosperity-2018>

World Bank. (2019). DataBank: World development indicators (Data set).
<https://databank.worldbank.org/source/world-development-indicators>

World Bank. (2020a). *Poverty and equity brief: Sub-Saharan Africa*.
https://databank.worldbank.org/data/download/poverty/33EF03BB-9722-4AE2-ABC7-AA2972D68AFE/Global_POVEQ_SSA.pdf

World Bank. (2020b). *DataBank: World development indicators* (Data set).
<https://databank.worldbank.org/source/world-development-indicators>

World Bank. (2021). *Population ages 0-14 (% of total population)*.
<https://data.worldbank.org/indicator/SP.POP.0014.TO.ZS>

United Nations Children’s Fund (UNICEF). (2008). *The state of the world’s children 2008*.
<https://www.unicef.org/reports/state-worlds-children-2008>

United Nations General Assembly. (2015). *Transforming our world: The 2030 agenda for sustainable development* [A/RES/70/1]. <https://sdgs.un.org/2030agenda>

United Nations Statistics Division. (2018). *The sustainable development goals report: 2018*.
<https://unstats.un.org/sdgs/files/report/2018/thesustainabledevelopmentgoalsreport2018-en.pdf>

United Nations Statistics Division. (2019). *Sustainable development goals overview: End poverty in all its forms*. United Nations Statistics Division (UNSD).
<https://unstats.un.org/sdgs/report/2019/goal-01/>

Appendix A

Table A1. *U5MR Country Clusters' Goal Scores (SDG Index Score) in Child Poverty Related SDGs 2018*

Country	Poverty	Hunger	Health	Education	Gender	WASH	E growth	Inequality	Institution
1st quartile									
Ghana	69.02	61.58	54.39	69.17	54.11	52.85	76.61	58.63	69.74
Botswana	56.67	36.60	54.74	88.31	66.17	60.58	63.47	-	65.73
C. Verde	54.27	46.48	73.30	78.46	65.38	69.14	73.54	36.58	74.45
Gabon	85.90	52.71	50.27	79.02	46.28	61.69	62.91	46.96	53.12
Kenya	29.80	49.88	50.42	71.00	67.46	43.90	70.20	36.29	57.21
Mauritius	98.59	46.03	79.12	89.40	48.93	57.04	75.10	39.16	69.51
Namibia	55.14	39.81	49.79	82.17	87.31	59.00	64.63	-	69.61
Sao Tome	37.80	64.65	62.03	84.71	45.18	66.61	66.75	90.70	77.33
S. Africa	49.85	52.52	48.74	78.06	80.05	66.99	61.20	-	54.91
2nd quartile									
Comoros	49.16	41.56	50.43	47.16	32.10	66.64	48.28	50.77	67.59
Congo Rep.	11.27	42.84	48.45	57.71	51.84	38.32	56.34	29.37	53.00
Ethiopia	32.53	48.59	44.63	33.50	53.31	39.43	71.42	67.32	51.62
Gambia	62.16	45.30	43.18	45.71	34.92	59.97	69.31	44.26	60.14
Madagascar	-	37.44	41.17	44.04	66.92	38.73	62.80	31.66	51.05
Rwanda	17.11	51.69	60.02	60.89	80.47	56.19	69.77	27.31	70.91
Senegal	29.30	53.66	54.25	37.10	53.10	57.81	73.10	52.52	59.75
Sudan	36.01	19.01	52.03	30.32	37.26	32.99	52.44	65.63	56.27
Tanzania	21.47	48.19	45.09	47.96	70.68	46.47	73.84	60.15	50.53
Togo	18.58	53.28	42.97	61.44	40.16	46.75	71.51	39.54	52.33
Uganda	28.31	48.27	46.64	53.21	58.36	41.08	72.01	62.01	47.55
Zimbabwe	-	38.90	43.25	68.80	76.42	52.42	68.94	55.96	51.13
3rd quartile									
Benin	18.31	55.47	47.15	46.95	40.36	46.64	70.73	36.21	49.01
Burundi	-	44.09	47.65	61.02	63.03	54.29	44.02	67.07	48.86
Cameroon	47.59	56.65	40.64	63.80	51.89	52.53	68.02	43.19	45.97
C. d'Ivoire	43.50	48.55	34.82	39.79	35.07	51.89	74.99	46.66	52.21
Lesotho	13.71	54.46	28.72	55.01	71.90	58.12	52.46	-	46.18
Liberia	20.47	48.57	39.20	10.20	41.45	48.01	64.93	83.87	44.94
Malawi	3.23	53.74	43.64	48.44	62.19	56.49	62.81	43.61	55.81
Mauritania.	80.91	36.37	47.17	29.37	30.84	54.30	45.60	86.17	44.88
Mozambique	11.04	45.09	31.16	41.59	60.03	41.11	53.36	49.20	52.63
Zambia	13.46	42.94	46.53	62.68	63.64	52.57	67.22	16.62	45.43
4th quartile									
Angola	45.16	47.78	33.74	37.84	53.57	45.96	59.88	57.18	41.72
Burkina F	24.26	51.89	47.99	27.03	34.62	44.15	69.21	78.08	57.03
CAR	0.00	40.91	17.59	10.30	30.60	47.99	37.46	19.28	49.51
Chad	23.59	37.12	21.55	14.72	27.01	40.84	54.17	53.25	32.18

Country	Poverty	Hunger	Health	Education	Gender	WASH	E growth	Inequality	Institution
Congo, D.	0.66	36.46	37.75	56.10	37.17	42.66	58.44	58.93	31.07
Guinea	35.50	49.79	33.28	24.74	35.68	43.65	65.37	82.50	48.31
Mali	24.26	45.04	32.33	12.62	35.57	56.01	67.37	73.96	50.75
Niger	5.59	42.93	39.09	8.42	40.23	40.41	64.19	81.76	55.87
Nigeria	17.15	48.01	28.04	32.13	36.50	53.52	64.71	9.06	42.95
Sierra Leone	23.16	46.90	26.73	52.21	44.91	38.90	62.66	69.40	50.81

Note. WASH = water and sanitation; E growth = economic growth. I have reported the SDG index scores based on U5MR country clusters to gauge how countries under different U5MR quartiles are progressing in child poverty indicators. The SDG index score signifies a country's performance on the SDGs from a score of 0 (worst outcome) to 100 (best outcome). The difference between 100 and a country's score is therefore the distance in percentage that needs to be completed to achieve SDGs. Adapted from "Sustainable Development Report 2019" by J. D. Sachs, G. Schmidt-Traub, C. Knoll, G. Lafortune, and G. Fuller, 2019, Bertelsmann Stiftung and Sustainable Development Solutions Network (SDSN).