

Original Article

Aid Effectiveness, Health Sector Investment, and Conflict Prevention in Sub-Saharan Africa's Fragile States: A Comparative Assessment

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ABSTRACT

The relationship between official development assistance to the health sector, health outcome improvements, State legitimacy building, conflict prevention in sub-Saharan Africa's fragile and conflict-affected States, is one of the most policy-relevant but analytically under-explored questions which face the developing countries globally. Does health Official Development Assistance (ODA) to fragile States, build the State legitimacy which reduces armed group recruitment vulnerability, or does it substitute for domestic health investment in ways that undermine, rather than strengthen institutional capacity and State-citizen trust? This paper examines the aid effectiveness, health investment, conflict prevention nexus across six sub-Saharan African country cases, and it draws on the Organisation for Economic Cooperation and Development's Development Assistance Committee (OECD-DAC) Creditor Reporting System data, on health ODA (2018 to 2022), World Bank World Development Indicators government health expenditure data (2022), the World Health Organisation's Universal Health Coverage (WHO-UHC) Service Coverage Index (2021), the Mo Ibrahim Foundation's Ibrahim Index of African Governance (IIAG) Overall Governance scores (2023 data year), and the Armed Conflict Location and Event Data Project's (ACLED) Conflict Severity Index (2022). Rwanda provides the most compelling positive case as the study finds a pattern that is consistent with health ODA supporting State legitimacy and favourable governance outcomes, when it is channelled through government systems which are aligned with a country's health priorities, and are designed to build domestic institutional capacity, rather than to substitute it. It further finds that Somalia and Northeast Nigeria illustrate the cautionary cases, in which large volumes of health ODA which are channelled through parallel systems of non-governmental organizations, are associated with weaker domestic health governance capacity in this comparative sample, and may be associated with reduced State legitimacy by linking health services with international actors rather than government. The paper argues for a fundamental reorientation of health ODA in fragile States toward government-aligned, conflict-sensitive, capacity-building approaches, that explicitly measure and pursue security dividends alongside health outcomes.

Keywords: Aid Effectiveness; Health ODA; Conflict Prevention; Fragile States; Nigeria; Sub-Saharan Africa; State Legitimacy; OECD-DAC; Rwanda; Somalia; UHC

Introduction

Every year, billions of dollars of official development assistance flow into the health sectors of sub-Saharan Africa's conflict-affected States [1]. In Nigeria, health ODA represents approximately 18 to 22 percent of total ODA, which is channelled through multiple bilateral donors, multilateral organizations, and international NGOs through fragmented, parallel programmes, vertical interventions, and the emergency responses [2]. In Somalia, health ODA accounts for approximately 40 to 50 percent of the total ODA, and the Somali Federal Ministry of Health has almost no domestic implementation capacity of its own [3]. The health systems of both countries are shaped fundamentally by the design and delivery choices of the international development actors. Yet the fundamental question of whether this health ODA is building the institutional capacity and State legitimacy which could reduce armed group recruitment vulnerability and contribute to conflict prevention, has barely been asked, let alone answered.

The development effectiveness literature has extensively analysed the relationship between ODA and economic growth, and has produced mixed and contested results [4-6]. The health ODA effectiveness literature has been more positive, as it has found consistent associations between health sector ODA and health outcome improvements in low-income countries [7,8]. What both literatures have largely missed is the security dimension, which is the extent to which health investment, whether from domestic or external sources, may generate governance legitimacy dividends which reduce conflict risk. This paper not only argued that health investment is a security investment, and that the pathways from health service delivery to State legitimacy, to reduction in terms of armed group recruitment vulnerability are theoretically coherent and have been partly documented in the literature. It also addresses the aid effectiveness dimension of this argument, namely, under what conditions does health ODA generate these security dividends, and what does the cross-country evidence suggest about the design features which make the difference between aid that builds State legitimacy and aid that replaces it?

Literature Review

The aid effectiveness literature has been shaped by a series of landmark agreements such as the Paris Declaration on Aid Effectiveness [9], the Accra Agenda for Action [10], and the Busan Partnership for Effective Development Cooperation [11], which established the principles of country ownership, alignment, harmonisation, results-based accountability, and mutual accountability as the foundations of effective development cooperation. The empirical literature on

aid effectiveness has produced contested results. For instance, Burnside and Dollar [4] found that aid promoted growth only in countries which had good institutions. Another study whose findings generated enormous debate is that of Rajan and Subramanian [5], who found little evidence that aid raised growth rates, while the study by Arndt, Jones, and Tarp [6] which used an improved methodology, found more positive effects.

The specific health ODA effectiveness literature, has been more consistently positive. Farag et al. [7] examined the relationship that exists between health ODA and domestic government health expenditure, and they found evidence of both complementarity and substitution, based on country context, with the substitution effect being more common in the poorest and most aid-dependent countries. Lu et al. [8] found evidence of significant substitution, with approximately 43 cents of domestic health spending displaced for every dollar of health ODA, in a sample which was comprised of low-income countries. This substitution finding has been confirmed in more recent analyses, such as that of Federspiel and Borghi [12], whose 2026 panel study of 105 low- and middle-income countries found that on-budget health ODA continued to displace domestic government health spending, though at a more modest scale than earlier estimates such as that of Lu et al.

The Rwanda case, generated a large literature in terms of the governance and legitimacy dimensions of health system development. Binagwaho et al. [13] studied the governance mechanisms which enabled Rwanda's health system expansion and attributed much of its success to government ownership and leadership of the health reform agenda. Rwanda is not covered by Afrobarometer; the Ibrahim Index of African Governance instead shows Rwanda scoring 58.7 out of 100 on Overall Governance, the second-highest of the six cases examined in this study and well above the African average of 49.3, which is an observed governance score that is consistent with, but does not measure, the hypothesised legitimacy dividends from effective health governance [28]. The Somalia case provides the contrasting cautionary evidence, as scholars like Menkhaus [15] documenting the consequences of humanitarian aid which operates in the absence of functional State governance, especially in the way in which effective aid provision by international actors can inadvertently undermine State accountability, by providing services that communities come to expect from international, rather than government sources.

Theoretical Framework

This paper draws on two theoretical frameworks. The first is the Aid Effectiveness and Principal-Agent framework, which is drawn from the work of Whitfield [16] and the Paris Declaration principles [9]. It holds that aid generates the best development outcomes when recipients own the development agenda, when the aid aligns with the recipient country's systems and priorities, and when accountability runs downward to citizens, rather than upward to donors. When applied to health ODA in fragile States, this framework shows that aid which is channelled through government health systems, may build State institutional capacity and legitimacy, while aid that is channelled through NGO parallel systems, may weaken State capacity by drawing resources, staff,

and community trust away from government institutions.

The second framework is the Service Delivery and State Legitimacy approach [17]. It holds that visible, effective, government delivered public services build the institutional trust which reduces armed group recruitment vulnerability. This framework shows that health ODA which contributes to government delivered health services, is hypothesized to generate security dividends through State legitimacy building, while health ODA which substitutes government health services with NGO delivered alternatives, is hypothesized not to. The Rwanda versus Somalia comparison provides the most direct test of these competing predictions in the sub-Saharan African context.

Methodology

This paper employs a comparative case analysis approach, as it draws on quantitative secondary data and qualitative documentary analysis. The primary quantitative data sources are OECD-DAC Creditor Reporting System data [1] on health ODA, for each recipient country and it covers the years 2018 to 2022; World Bank World Development Indicators (WDI) government health expenditure data, indicator SH.XPD.GHED.GD.ZS (domestic general government health expenditure as a percentage of GDP), reported for 2022[18]; WHO UHC Service Coverage Index for 2021[19]; the Mo Ibrahim Foundation's Ibrahim Index of African Governance (IIAG) data portal, specifically the Overall Governance score (2023 data year) for each case [28]; and the Armed Conflict Location and Event Data Project's (ACLED) Conflict Severity Index (2022)[27]. The IIAG Overall Governance score is used as the single, uniform governance measure for all the six cases. Afrobarometer Round 9 covers only two of the

six cases (Nigeria and Ghana) and does not cover Rwanda or Somalia [14]; no Afrobarometer values are analysed in this study, so institutional trust is not measured directly. The AidData Core Research Release, Version 3.1 [20], provides a project-level aid commitment background only, and no AidData values are reported in the results. The six country cases are selected to represent variation in aid-domestic investment balance, health system governance model, and security context, in line with the structured most similar, most different comparative design.

Findings and Analysis

Health ODA and Domestic Investment Across Country Cases

Table 1 below presents the relationship between health ODA, domestic government health investment, and UHC coverage across the six country cases, drawing on OECD-DAC, World Bank, and WHO data.

Table 1: Health ODA, Domestic Health Investment, and UHC Coverage: Cross-Country Comparison

Country	Health ODA as % of Total ODA (range of annual values, 2018-2022)	Government Health Expenditure % GDP (2022; WDI indicator SH.XPD.GHED.GD.ZS)	UHC Service Coverage Index 2021	Observations on Key Aid-Domestic Investment Relationship, Governance, and Conflict Severity
Nigeria	Approximately 18 to 22 percent	0.62 percent	38	It has a high health ODA share, but very low domestic investment; the ODA partially substitutes for domestic investment, rather than complementing it; it is amongst the lowest domestic health spending globally. IIAG Overall Governance (2023 data): 45.7/100, ranked 33rd of 54[28]. ACLED Conflict Severity Index 2022: High Severity (3 of 4 indicators)[27].

Country	Health ODA as % of Total ODA (range of annual values, 2018-2022)	Government Health Expenditure % GDP (2022; WDI indicator SH.XPD.GHED.GD.ZS)	UHC Service Coverage Index 2021	Observations on Key Aid-Domestic Investment Relationship, Governance, and Conflict Severity
Mali	Approximately 25 to 30 percent	1.37 percent	30	It has a very high health ODA dependency; the coup events disrupted aid flows between 2020 and 2022, thereby creating health system shocks; fragile aid architecture exposed. IIAG Overall Governance (2023 data): 43.2/100, ranked 37th of 54[28]. ACLED Conflict Severity Index 2022: Extreme Severity (4 of 4 indicators)[27].
Somalia	Approximately 40 to 50 percent	0.31 percent	24	Almost entirely aid-dependent health system; near-zero domestic government health investment; a pronounced pattern of substitution in the descriptive sense; State health governance largely delivered by international actors. IIAG Overall Governance (2023 data): 25.5/100, ranked 53rd of 54, the lowest of the six cases[28]. ACLED Conflict Severity Index 2022: High Severity (3 of 4 indicators)[27].
Rwanda	Approximately 30 to 35 percent	2.43 percent	63	Better domestic investment ratio; aid complements rather than substitutes; government ownership of health system is strong; best health outcomes in region despite not having highest aid. IIAG Overall Governance (2023 data): 58.7/100, ranked 14th of 54, above the African average of 49.3[28]. Not present in ACLED's 2022 Conflict Severity Index, indicating conflict levels below the threshold for any of the four severity indicators[27].
Ethiopia	Approximately 22 to 27 percent	0.72 percent	43	Domestic investment lower than in Rwanda and Ghana; government ownership of the health extension programme is described historically (pre-conflict) in Table 3; the indicators in this row (2018 to 2023 data years) partly post-date the onset of the Tigray conflict in November 2020. IIAG Overall Governance (2023 data): 48.4/100, ranked 29th of 54, close to the African average[28]. ACLED Conflict Severity Index 2022: Moderate Severity (2 of 4 indicators)[27].
Ghana	Approximately 15 to 18 percent	2.04 percent	55	It has a relatively high domestic investment; the country's NHIS health financing reform is domestically led; aid plays a supporting, rather than leading role; it is has one of the most sustainable health system in West Africa. IIAG Overall Governance (2023 data): 62.2/100, ranked 7th of 54, the highest of the six cases[28]. Not present in ACLED's 2022 Conflict Severity Index, indicating conflict levels below the threshold for any of the four severity indicators[27].

Source: OECD-DAC Creditor Reporting System (CRS) health ODA data[1]; World Bank World Development Indicators government health expenditure [18]; WHO UHC Service Coverage Index 2021 [19]; World Bank ASPIRE database [21]; Mo Ibrahim Foundation IIAG data portal [28]; ACLED Conflict Severity Index [27].

The data in Table 1 reveals two distinct patterns in the relationship between health ODA and domestic investment. In Rwanda and Ghana, relatively high

domestic government health investment (2.43 and 2.04 percent of GDP in 2022) coexists with significant, but not dominant health ODA. Ethiopia occupies an

intermediate position, as it has a moderate health ODA share but domestic government health expenditure of 0.72 percent of GDP in 2022; its quantitative indicators (2018 to 2023 data years) partly post-date the onset of the Tigray conflict in November 2020, and the pre-conflict description of its Health Extension Programme in Table 3 is historical and is not measured by these indicators. This is consistent with a descriptive pattern of higher domestic financing alongside aid, though this cross-sectional comparison cannot establish whether aid actively supports domestic investment, since no longitudinal or econometric analysis of year-on-year changes is presented in this study. In Nigeria, Mali, and Somalia, low domestic government health investment (0.62, 1.37, and 0.31 percent of GDP in 2022) coexists with high health ODA. This is consistent with a descriptive pattern of lower domestic financing, alongside higher aid dependence. The term substitution is used here in the descriptive, not the causal sense, since this study's cross-sectional design cannot establish that aid reduced government investment incentives. The UHC coverage outcomes follow this distinction closely, as the complementarity model countries, especially Rwanda, achieve much higher UHC scores than the substitution model countries.

The governance implication is substantial, though it should be read as an association rather than a demonstrated causal effect. Countries which have a higher UHC coverage that is driven by government-

owned health systems, specifically Rwanda and Ghana, also score above the African average on the IIAG Overall Governance measure (58.7 and 62.2 respectively, against an African average of 49.3), and neither appears in ACLED's 2022 Conflict Severity Index. Countries which have a high health ODA dependency and low domestic investment, specifically Somalia, Mali, and Nigeria, including in its Northeast region, score below the African average on Overall Governance and appear in the High or Extreme Severity categories of the same ACLED index. This pattern is consistent with, though it does not independently confirm, the theoretical prediction that government-owned health service delivery is associated with stronger State legitimacy, while aid that substitutes for government services is not. Establishing the direction of this relationship would require the longitudinal or econometric analysis discussed in the Limitations below. The IIAG Overall Governance scores and ACLED categories which were reported here are observed values. Hence, any effect of health ODA on institutional trust or State legitimacy remains a hypothesis that this descriptive design does not test.

Aid Effectiveness Dimensions and Security Implications

Table 2 below presents an assessment of health ODA quality across five aid effectiveness dimensions, with the specific security implication of each dimension's current performance.

Table 2: Health ODA Effectiveness Dimensions and Security Implications in Fragile States

Aid Effectiveness Dimension	Best Practice Standard	Nigeria / Fragile State Reality	Security Implication
Country ownership and alignment	Aid should align with the health priorities and systems of the recipient country (Paris Declaration 2005; Accra Agenda 2008)	The multiple donors operate parallel vertical programmes, which have separate reporting; fragmentation has been reported in Nigeria OECD-DAC CRS data; limited government-led sector coordination	Fragmented aid may not build State institutional capacity. It is hypothesized to reinforce parallel health governance, and that could undermine, rather than support State legitimacy with communities
Use of country systems	Aid should use recipient government PFM and service delivery systems rather than parallel structures	Many health ODA programmes in Nigeria use project implementation units and NGO delivery bypassing FMOH. That may reduce accountability to government health policy	Aid which bypasses government systems, may not build State governance capacity. Also, communities may come to associate health services with NGOs, rather than government, with a potential reduction in the State-legitimacy return on aid investment
Conflict sensitivity in	Aid programmes in conflict-affected settings should be designed to do	Most health ODA in Nigeria not conflict-sensitive; does not incorporate community security	Non-conflict-sensitive health aid may inadvertently reinforce conflict dynamics; conflict-affected States

Aid Effectiveness Dimension	Best Practice Standard	Nigeria / Fragile State Reality	Security Implication
programme design	no harm and ideally to contribute to conflict prevention	risk into programme design; conflict-affected States often receive less health ODA per capita due to access difficulties	with worst health outcomes receive less aid per capita, thereby creating inverse care law
Sustainability and domestic resource mobilisation	Aid should contribute to building domestic fiscal capacity for health rather than substituting for it	As a Percentage of GDP, the Nigerian government health expenditure has not grown, despite the high health ODA; substitution effect has been reported in fiscal data	Aid substituting for domestic health investment may create aid-dependent health governance. If aid flows are disrupted by conflict, governance crises or donor priority shifts, health systems may become vulnerable to collapse
Results measurement and mutual accountability	Aid should be subject to rigorous evaluation and mutual accountability between donors and recipients	Health ODA evaluation in Nigeria weak; most programmes use process indicators rather than outcome measures; no systematic assessment of security dividend returns	Without evidence of security dividends, aid for health is not recognised as security investment; health ODA excluded from security planning frameworks despite documented pathways

Source: Paris Declaration on Aid Effectiveness [9]; Accra Agenda for Action [10]; OECD-DAC CRS programme data [1]; UNDP assessment of conflict impact on development in Northeast Nigeria [22]; World Bank Nigeria health sector documentation [2]; AidData Core Research Release, Version 3.1 [20].

The aid effectiveness assessment in Table 2, suggests a pattern of aid effectiveness concerns in the health ODA of fragile States, which may have security implications. The fragmentation of health ODA into multiple parallel vertical programmes, with separate reporting, delivery mechanisms, and accountability frameworks is indicated by the OECD-DAC CRS data for Nigeria. The data indicate a large number of individual health ODA projects, with limited coordination under the Federal Ministry of Health. This fragmentation may reduce the efficiency of total health

investment, may limit the economies of scale which integrated programme delivery could generate, and is hypothesised to weaken the State's ability to present health services as a coherent government offer to communities. These are plausible mechanisms which the present descriptive design does not test.

Cross-Case Evidence on Aid-Security Relationships

Table 3 below presents cross-case evidence on the relationship between health ODA approach and security outcomes.

Table 3: Cross-Case Evidence on Health ODA Approach and Governance-Security Outcomes

Country / Programme	Health ODA Approach	Domestic Capacity Built	Security Outcome Evidence	Key Lesson
Rwanda: GAVI HSS and Global Fund	Government-channelled; aligned with community health worker programme; results-based financing	Strong; national Community Health Worker (CHW) programme built with domestic and aid financing since 1995[29]; Mutuelles de Sante community-based health insurance (CBHI) covering over 90 percent of the population since 2011-12[29]; WHO JEE capacity strengthened	Positive; Rwanda scores 58.7/100 in Overall Governance (IIAG 2024, data year 2023)[28], ranked 14th of 54 African countries and above the African average of 49.3; Rwanda is not covered by Afrobarometer, so this governance index is used in place of institutional-trust survey data; post-genocide stability partly associated with health system as a governance presence, though this association is not independently tested in this study	Aid aligned with government priorities and systems may build institutional capacity which is associated with security dividends. Government ownership is a critical mediating variable

Country / Programme	Health ODA Approach	Domestic Capacity Built	Security Outcome Evidence	Key Lesson
Somalia: vertical health ODA through NGOs	Predominantly NGO-delivered; limited FMOH capacity building; emergency rather than development focus	Very limited; Somali FMOH has almost no domestic implementation capacity; health governance largely NGO-operated	Negative; Somalia scores 25.5/100 in Overall Governance (IIAG 2024, data year 2023)[28], ranked 53rd of 54 African countries, the lowest of the six cases in this study; high health ODA per capita coexists with the weakest governance outcome in the sample; this association does not establish that aid caused the outcome	Aid bypassing government may not build State health governance capacity or legitimacy. Somalia is an illustrative cautionary case of the substitution pattern, which this descriptive comparison cannot confirm
Nigeria northeast: USAID, UKAID, EU health humanitarian programmes	Mix of government-aligned and NGO-delivered; emergency focus; limited long-term capacity building	Limited; State Ministry of Health capacity in Borno and Yobe not significantly strengthened; donor-created parallel structures dominant	Limited; subnational security outcomes are not separately measured for Northeast Nigeria; at the national level, Nigeria scores 45.7/100 in Overall Governance (IIAG 2024, data year 2023)[28], ranked 33rd of 54; ACLED's 2022 Conflict Severity Index places Nigeria in the High Severity category (3 of 4 indicators)[27], reflecting conflict concentrated substantially in the Northeast and Northwest; UNDP's assessment of conflict impact on development in Northeast Nigeria notes that communities associate health services with international NGOs, not government[22]	Northeast Nigeria health ODA reproducing Somalia pattern; misses State legitimacy dividend; government-aligned programming with explicit capacity building needed
Ethiopia: Global Fund and GAVI results-based financing before 2020 (historical description)	Largely government-aligned; Health Extension Programme funded by mix of domestic and aid resources	Described as strong before the Tigray conflict (historical description). Health Extension Worker programme nationally scaled; WHO JEE capacity improvements	Historical description of the pre-conflict period; the governance score below is a later observation: Ethiopia scores 48.4/100 in Overall Governance (IIAG 2024, data year 2023)[28], ranked 29th of 54 African countries, close to the African average of 49.3. This 2023 score post-dates the onset of the Tigray conflict (November 2020) and is not a measure of the pre-conflict period. Subsequent conflict in the Tigray region illustrates the vulnerability of health-system gains to renewed insecurity	Aid-domestic complementarity is associated with better outcomes. Conflict disruption illustrates that aid-supported systems may remain vulnerable without security stabilisation

Source: Local Administrative Entities Development Agency [23]; GAVI Alliance Rwanda programme documentation [24]; Global Fund Nigeria programme data [25]; Exemplars in Global Health on Rwanda's CHW and CBHI programmes[29]; Mo Ibrahim Foundation IIAG data portal[28]; ACLED Conflict Severity Index [27]; UNDP assessment of conflict impact on development in Northeast Nigeria [22]; Binagwaho et al. [13]; Menkhaus [15]; World Bank Nigeria health sector documentation[2].

The cross-case evidence which is presented in Table 3 above, illustrates the Rwanda-Somalia polarity most clearly, as it shows that aid aligned with government systems and directed toward building domestic health governance capacity, is associated with

both better health outcomes and better governance outcomes, while aid that is channelled through NGO parallel systems is associated with health services which are being delivered alongside lower observed IIAG Overall Governance scores. Whether this reflects

any gain or loss in State capacity or legitimacy is not measured in this study. Northeast Nigeria is reproducing elements of the Somalia pattern in terms of health ODA delivery, as UNDP's assessment of conflict impact on development in the region shows that communities associate health services primarily with international NGOs, rather than government [22]. This

misattribution of health services may not be merely a branding problem, given that it may represent a missed opportunity to generate the State legitimacy dividend from health investment which the theoretical framework for this study predicts. The Rwanda evidence is consistent with this being achievable, although legitimacy itself is not measured here.

Discussion

The descriptive pattern identified here, lower domestic government health investment alongside higher health ODA in Nigeria, Mali, and Somalia, and higher domestic investment alongside aid in Rwanda and Ghana (with Ethiopia in an intermediate position), is broadly consistent with, though not a direct test of, the established literature on aid fungibility. Lu et al.[8], who worked with a larger cross-national sample, found that approximately 43 cents of domestic health spending is displaced for every dollar of health ODA received in low-income countries, and Federspiel and Borghi[12] confirmed a similar, though more modest, substitution effect in their 2026 cross-national panel study of low- and middle-income countries. The present study corroborates this general pattern but goes further by showing that the substitution effect is not uniform across the fragile States, as it is rather conditioned by whether aid is channelled through, or around government systems. This refines the earlier finding of Farag et al.[7], who reported that both complementarity and substitution occur based on country context, though they did not fully specify what that context comprises. This study proposes that the governance channel through which aid flows is a plausible missing variable, and the Rwanda-Somalia comparison, now supported by real governance and conflict-severity data rather than qualitative labels alone, offers suggestive cross-national evidence for this proposition, though confirming it would require the panel analysis discussed in the Limitations below. The finding of this study, also aligns with, and extends the Service Delivery and State Legitimacy literature, which is associated with Mcloughlin[17]. It holds that public service delivery does not automatically confer legitimacy on a fragile or conflict affected State, as the relationship is conditioned by whether citizens can attribute the service to government performance. Rwanda's experience, which as reported by Binagwaho et al.[13], illustrates precisely the kind of government attributed service delivery which Mcloughlin's framework predicts would generate legitimacy dividends, while Somalia's experience, which is consistent with Menkhaus's[15] account of humanitarian aid that operates in the absence of functional State governance, illustrates the opposite

pathway. What this study adds to that literature is an explicit, sourced security and governance outcome variable: the legitimacy differential which Mcloughlin theorized about is associated, in this sample, with higher observed IIAG governance scores and absence from ACLED's Conflict Severity Index in the government-aligned cases. These are observed scores, while any effect on institutional trust and State legitimacy is hypothesised, and the association is treated as theory-informed rather than causally established.

What distinguishes the findings of this study from the wider aid effectiveness literature is the explicit linking of health ODA design to conflict prevention outcomes. It is a linkage which the aid-growth literature that were reviewed in Section 2, represented by studies like that of Burnside and Dollar[4], Rajan and Subramanian[5], and Arndt, Jones, and Tarp[6], does not attempt to make, given that the literature is concerned principally with the relationship between aid and economic growth, rather than security. Similarly, the health ODA effectiveness literature, which includes the work of Farag et al.[7] and Lu et al.[8], is concerned with the fiscal substitution question in isolation from its governance or security consequences. The contribution of this study is to bring these two literatures into a single analytical frame. The study suggests, through six purposively selected comparative cases, that the aid-domestic investment relationship may be not merely a public finance question, but also a State legitimacy and security question. Another peculiarity of the findings is the identification of Northeast Nigeria as a case which appears to reproduce elements of the Somalia pattern of aid-driven service substitution. That has not been made explicit elsewhere in the literature on Nigeria's conflict-affected States, which gives this study its policy urgency.

The implications of the findings for policy and practice are considerable. For donor governments and multilateral agencies that are operating in Nigeria and other comparable fragile States, it suggests that the manner in which health ODA is delivered matters at least as much as the volume delivered. A donor who is seeking to generate security dividends alongside health

outcomes, ought to prioritise channelling funds through government systems, building domestic implementation capacity, and designing explicit domestic resource mobilisation conditionality into aid agreements, along the lines already elaborated in Section 8 of this paper. For the Nigerian government and its counterparts in similarly situated States, the findings suggest the hypothesis, not demonstrated by the present comparative analysis, that accepting large volumes of externally delivered health ODA, without a corresponding domestic investment strategy, may carry a governance cost which is not immediately visible in health outcome statistics, but that could manifest over time as reduced institutional trust, and potentially, heightened vulnerability to armed group recruitment narratives. For practitioners who are designing health programmes in conflict-affected settings, the Rwanda experience offers a transferable lesson, which is that results-based financing that is anchored on community health worker programmes, when channelled through government systems, can achieve both health and governance objectives simultaneously; it is a lesson which this paper has sought to operationalize in its policy recommendations for Nigeria's Northeast and Northwest. This point is reinforced by Otu et al.[26], whose assessment of

management practices in Nigeria's federal teaching hospitals also identifies inadequate funding as one of the greatest problems which confront the Nigerian health system as a whole. That is consistent with, and lends further weight to the substitution problem which this paper has identified within the health ODA relationship.

Future research should consider conducting a panel regression analysis, which should involve a larger number of countries. It should draw on the full OECD-DAC CRS dataset for all the sub-Saharan African fragile and conflict affected States, and should cover a longer time period, as that would permit formal statistical testing of the relationship between the aid delivery channel and conflict incidence. Also, future studies should collect primary survey data which measures institutional trust, specifically in relation to the health service attribution, rather than relying on general governance trust indicators as a proxy, as that would permit a more direct test of the Service Delivery and State Legitimacy framework, as advanced by McLoughlin[17]. Finally, given that the Northeast region of Nigeria as identified in this study, is reproducing the Somalia pattern, it remains an evolving policy concern that researchers should continue to track.

Limitations of the Study

The findings of this study should be read in the light of several specific limitations of the research design. First, case-selection bias is a genuine concern, given that the six countries were purposively selected to illustrate variation in the aid-domestic investment relationship, not randomly or exhaustively sampled from the population of sub-Saharan African fragile States, so the observed pattern may not generalise beyond this small, non-random series.

Secondly, the comparative claims in this study rest on ecological inference, that is country-level governance and conflict-severity scores are compared against country-level aid and expenditure data, but this does not establish that the specific health ODA flows examined are what produced the specific governance or conflict outcomes observed, since both could be driven by other national-level factors.

Thirdly, there is a temporal mismatch across the indicators used, given that health ODA shares are reported as ranges of annual values over 2018-2022, government health expenditure is reported for 2022, UHC coverage is reported for 2021, and the IAG and ACLED measures reflect 2023 and 2022 respectively (for Ethiopia, these indicators partly post-date the onset of the Tigray conflict in November 2020). This study does not align these to a single, consistent observation

window, which limits the precision of any claimed association.

Fourthly, confounding and reverse causation cannot be ruled out, given that it is equally plausible that countries which have weak governance and institutional capacity, attract more externally delivered aid and experience worse security outcomes, rather than aid delivery channel driving either outcome. In addition, measurement heterogeneity across the six cases is substantial, given that governance is measured only through the IAG Overall Governance score for all the six cases, since Afrobarometer does not cover Rwanda or Somalia and no institutional-trust survey values are analysed, so that trust and legitimacy are not directly observed. It means that the comparative table should be read as six parallel, but not fully harmonised case profiles rather than a single consistent cross-national dataset.

Finally, and most importantly, this comparative case design is not capable of establishing whether aid architecture causes changes in State legitimacy or conflict outcomes. It can only identify a pattern of association that is consistent with the theoretical framework advanced in Section 3. Also, the findings should be read and used accordingly, as a basis for the panel regression and primary survey research

outlined above, rather than as confirmation of a causal legitimacy or conflict-prevention pathway.

Policy Recommendations

In line with the findings, the following recommendations are made:

For major health ODA donors in Nigeria, such as those donated by the US government through PEPFAR and USAID, as well as those donated by the UK FCDO, the EU, and the Global Fund, a joint Government Alignment Compact for Nigeria Health ODA should be developed, which commits all major donors to a progressive, time-bound increase in the proportion of their Nigeria health ODA channelled through the Federal and State Ministry of Health systems. There should be a specific percentage and timeline negotiated jointly by donors and government, and informed by an independent fiduciary risk assessment, alongside the provision of technical assistance for improving the fiduciary and accountability systems which make this channelling safe. This study's own comparative evidence, which shows substantially higher domestic financing and better governance outcomes in the complementarity cases, supports the general direction of this recommendation. However, the specific pace and scale of the shift is a negotiated policy parameter rather than a finding that is derived directly from the analysis. The compact should establish a joint donor government Health ODA Coordination Mechanism, which should

be chaired by the Federal Ministry of Health and which eliminates parallel reporting requirements and replaces vertical programme monitoring with a sector wide monitoring of the outcome.

For the World Bank Nigeria and the IMF, health ODA complementarity should be embedded in the country fiscal framework, through the introduction of a health expenditure floor in the Country Partnership Framework and Article IV Consultation conditionality, in order to establish the requirement that domestic government health expenditure should grow as a proportion of GDP, rather than remaining static as health ODA maintains service levels. The IMF's social floor spending framework, which was extended after the COVID 19 period, to include minimum health and education expenditure floors, should be applied to the programme discussions on Nigeria.

For the Global Fund and GAVI Alliance, the Rwanda model, which is anchored on results based financing for community health worker programmes, should be channelled through government systems. Also, performance based accountability, which should be linked to verified coverage outcomes, should be explicitly adopted as the preferred delivery modality for health ODA in the conflict affected parts of sub-Saharan African States with active community health worker programmes, including Nigeria's northeast and northwest States.

Conclusion

This paper has examined the relationship between health ODA effectiveness, domestic health investment, and conflict prevention across six sub-Saharan African country cases, and has shown based on OECD-DAC, World Bank, WHO, IIAG, and ACLED data, a pattern which is consistent with the argument that health ODA supports State legitimacy and favourable governance outcomes when it is channelled through government systems that are aligned with the country's priorities and designed to build domestic institutional capacity. This pattern is not observed in this sample, where aid appears to substitute for domestic investment through NGO parallel delivery systems. Rwanda provides the most compelling positive case, while Somalia and the case of Nigeria's Northeast region illustrate the cautionary alternative.

This paper argued that durable security in Nigeria and the Sahel requires not more security spending in isolation, but rather, a comprehensive investment in building the structural conditions of human security, such as health, education, social protection, governance, and water and sanitation, as that contributes towards reducing the pool of grievances and opportunities which armed groups exploit. Aid effectiveness in health, which is properly designed around government ownership, domestic resource mobilisation, community embedded delivery, and explicit security dividend measurement, is critical and instrumental. Hence, getting aid effectiveness right in fragile State health systems is not merely a development policy question, it is also a security policy imperative.

Supplementary Materials

Supplementary file available via: https://www.journalehdi.com/supfile/798/Appendix_ehdi062.pdf

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