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| RESEARCH ARTICLE

HIV Prognosis in Sub-Saharan Africa: A Narrative Review of Mortality Trends, Structural Determinants, and Policy Implications

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| ABSTRACT

Background: HIV remains a significant public health problem in sub-Saharan Africa (SSA), where prognosis varies greatly within regions. Mortality continues to be a primary outcome of focus; however, little attention has been paid to studying it due to largely inequitable socio-structural factors, weak health systems, and limited evidence-based policy. **Objective:** This narrative review summarizes the peer-reviewed literature on HIV prognosis in SSA from 2015 to 2024, focusing on mortality as the principal outcome. It also characterizes structural, behavioral, and biomedical determinants and analyses how these factors provide a framework for policy recommendations. **Methods:** This study comprised 218 articles published in peer-reviewed journals. Eligible studies focused on mortality or mortality-related prognostic outcomes and contained sociodemographic, structural, behavioral, or biomedical determinants, and policy-relevant lessons. The findings were integrated to regionally evaluate the disparity, trend, and policy integration scope. Results**:** Results: Prognosis research is concentrated in southern and eastern Africa, while West and Central Africa remain underrepresented. Structural predictors such as healthcare access, economic inequality, and gender normsdominate the literature. Few studies have examined behavioral (e.g., alcohol use, counseling) or biomedical (e.g., viral load, CD4 count) predictors, despite their prognostic relevance. Only 43% of studies included actionable policy provisions. **Conclusion:** HIV prognosis in SSA reflects the impact of the dominant structural factors. However, comprehensive intervention is limited by the underutilization of behavioral and biomedical insights. Cross-regional expansion and interdisciplinary approaches are critical for addressing equity gaps and improving the effectiveness of the health system. Enhanced implementation pathways can improve evidence translation and reduce mortality.

| KEYWORDS

HIV Prognosis, Sub-Saharan Africa, Mortality, Structural Determinants, Policy, Regional Disparities, Health Systems, Antiretroviral Therapy, Epidemiology, Health Equity

| ARTICLE INFORMATION

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1. Introduction

The Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) remain dire public health threats in Sub-Saharan Africa (SSA), where more than 25 million of the 38 million people living with HIV (PLHIV) and over a million of the world's HIV-positive Populations reside. The region faces mounting disparities among the rest of the globe because of its high prevalence in both general and key populations, limited healthcare

infrastructure, and social disparities [1,2]. Despite efforts to scale up antiretroviral therapy (ART), with countries such as South Africa approaching 90–90–90 targets [3]—prognosis remains highly variable across the continent. Large portions of the population remain undiagnosed or poorly retained in care, and viral suppression remains elusive for many, even among those enrolled in ART programs [4].

Recent research highlights the ongoing burden of HIV-associated mortality in certain regions of Sub-Saharan Africa (SSA), even with the expansion of ART initiatives. In Ethiopia, a retrospective cohort study of 746 ART recipients in 2021 revealed an alarming 13.67% mortality rate over the five-year follow-up period, with late ART initiation, poor baseline functional status, and tuberculosis contributing the most to these deaths [5]. Moreover, nearly one-third of patients in Eastern Ethiopia did not attain full virological suppression under ART, suggesting suboptimal suppression despite access to treatment [4]. These findings illustrate a more pervasive trend that spans multiple SSA regions. For instance, Musa et al. (2017) described the occurrence of HIV mortality among populations in Lagos, Nigeria, citing the lack of viral load assessment techniques and late disease detection as primary contributors [6]. Central African studies, including those conducted by Mouinga-Ondémé et al. (2024) in Gabon and Mavedzenge et al. (2022) in Congo, Burundi, and Cameroon, further emphasize the persistent burden of opportunistic infections and the lack of long-term survival, even years after ART [7, 8].

Structural and systemic factors play a disproportionate role in shaping prognosis outcomes. These include delays in diagnosis, overburdened health systems, stigma, and the incomplete or inaccurate reporting of patient outcomes. For instance, Bristedt et al. (2024) found that even when ART was available, gaps in monitoring infrastructure led to poor outcome tracking and misestimated mortality rates across multiple Ethiopian districts [9].

Although less regarded, psychosocial and behavioral factorsare equally important. Stigmatization, poor counseling, low health literacy, and a lack of psychosocial support have all been linked to deficits in ART adherence and treatment outcomes. Alcohol consumption significantly diminished HIV care engagement among South African women, more so than depression and intimate partner violence combined [10]. Similarly, Nutor et al. (2020) demonstrated that achieving pre-ART counseling enhanced adherence and survival rates across multiple SSA countries [11].

However, the prognosis in Africa remains limited. The literature is biased toward survival and mortality as metrics, with approximately 23% of the studies in this review focusing on these endpoints. Even fewer address ART failures, viral suppression, or long-term adherence. Behavioral factors are strikingly absent from formal classifications and remain underutilized even when mentioned in the results. For example, the operationally simple strategy of multimonth ART dispensing supported adherence, yet such studies are scarce [12].

Geographic inequalities also add another layer of complexity to HIV prognosis in SSA. Most prognosis studies are based in South Africa owing to its better research infrastructure and health system integration. Countries in Central and West Africa are grossly underrepresented with only 2 and 11 studies, respectively, in the dataset of 218 publications, limiting the generalizability of findings and obscuring region-specific drivers of HIV outcomes. For instance, Gabon's high mortality rates reflect failures in resource allocation, as opportunistic infections persist in ART regimens due to systemic constraints [7]. In Nigeria, mortality trends are a direct result of policy neglect and inadequate surveillance [6].

This review highlights critical gaps in HIV prognosis research for SSA, with an emphasis on mortality trends alongside categorizable structural and behavioral predictors, as well as geographical differences. It questions the sufficiency of evidence available to inform policy and, in turn, offers a proposal for integrated policy frameworks that blend the social determinants of healthand spatial equityagainst biomedical thresholds as guiding pillars for future inquiry.

2. Methods

2.1 Review Design and Scope

This narrative review sought to comprehensively blend pertinent evidence on HIV outcomes in sub-Saharan Africa, specifically focusing on mortality outcomes, underlying structural determinants, and their relevance to policy frameworks. This review does not seek to be exhaustive but instead provides a curated thematic synthesis from a selection of studies deemed impactful.

2.2 Eligibility Criteria

Studies were included if they:

- They were published in peer-reviewed journals from January 1, 2015, to March 31, 2025. (With the exception of a few, earlier studies were only included when they were methodologically relevant and prominent).
- Focused on populations within Sub-Saharan Africa (national or subnational scope).
- Reported **mortality outcomes** associated with HIV/AIDS in relation to its prognosis.
- Addressed structural or epidemiological predictors such as health system access, poverty, stigma.
- Were published in **English.**
- Provided actionable findings or recommendations.

Studies were excluded if they:

- Were restricted to HIV prevalence/incidence data without prognostic information.
- Offered a laboratory-centered perspective without an epidemiological or population-based framework.
- Lacking full-text access or opinion-based publications (such as editorials).
- Lacked African data , outcome predictors or did not report outcome predictors.

2.3 Data Source and Selection

This review used a **structured dataset** comprising 218 peer-reviewed studies. The dataset was manually annotated and filtered for inclusion by using the above criteria. Studies were originally sourced through academic search engines, including **PubMed**, **Scopus**, **Web of Science**, and **Google Scholar**, using Boolean search strings, such as:

> ("HIV prognosis" OR "HIV mortality") AND ("Africa" OR "Sub-Saharan Africa") AND ("predictors" OR "risk factors") AND ("health systems" OR "policy")

And a combination of keywords from this set:

{HIV Prognosis, Sub-Saharan Africa, Mortality, Structural Determinants, Policy, Regional Disparities, Health Systems, Antiretroviral Therapy, Epidemiology, Health Equity}

2.4 Data Extraction and Synthesis

Each included study was tagged for:

- Title, authors, publication year
- Geographic location of the African continent (East, West, Central, Southern Africa, northern Africa, etc..)
- Primary outcome (with a focus on mortality)
- Predictor type (structural, behavioral, biomedical)
- Policy relevance (explicit or implied)
- Study design and key findings

Narrative synthesis was used to identify:

- Regional patterns in mortality
- Dominant structural determinants
- Recurring policy themes or gaps
- Underrepresented regions or predictors

3. Findings

3.1 Study Characteristics and Design Trends

Of a refined collection of 218 studies, 201 were selected based on the inclusion criteria for the review. Only studies published in peer-reviewed journals in the time frame of January 1, 2015, to March 31, 2025, were considered for inclusion. A handful of earlier studies were included owing to their relevance and methodological importance, the majority of which were published after 2015 (Figure 1, right panel). The average citation count across the included studies was 47.6, with 82.4% published in top quartile (Q1) journals, demonstrating a strong scientific impact (Table 1).

The methodology landscape was predominantly dominated by non-randomized observational designs, comprising 68.3% of the included studies, followed by meta-analyses (11.8%) and randomized controlled trials (7.5%) (Table 4; Figure 3, right panel). These findings are in line with previously published reviews that have noted the prevalence of non-randomized observational designs in HIV outcome research in Africa [13]. While there is an increasing volume of high-quality research, only 43.8% of the studies demonstrated explicit or implicit relevance to policy (Figure 3, left panel; Table 5), highlighting a gap between scholarly research and policy impact.

A key insight of this review is the prevalence of non-randomized observational studies throughout Sub-Saharan Africa, particularly in Southern Africa, where 67 of such studies were identified, far outnumbering contributions from other regions (Figure 6). This concentration suggests systemic impediments in conducting experimental or longitudinal research in Low- and Middle-Income Countries (LMICs). It reveals wider research-led inequities regarding infrastructure and capacity as well as the variety of research designs deployed across the continent. The focus on such observational designs hampers the production of causal explanatory evidence and restricts opportunities to assess interventions, plan responses, or inform policies through evidence-based approaches to HIV in these regions.

3.2 Geographic Distribution of Evidence

The scope of the research studies showed notable gaps between the various regions. Although nearly half (48.3%) of the studies were sub-Saharan regional or multi-country studies, South Africa alone accounted for 32.8% of all country-specific research, demonstrating its disproportionate dominance in HIV prognosis research on HIV (Table 2; Figure 1, left panel). East Africa contributed to 12.4% of the studies, while West Africa and Central Africa lagged behind at 5.5% and 1.0%, respectively, showing a stark lack of representation. This concentration constrains the utility of such studies across the continent and may mask certain regional factors that contribute to mortality [14].
Another key finding of this review is the pronounced regional imbalance in both the volume and nature of HIV prognosis research across Sub-Saharan Africa. Southern Africa is a clear outlier, accounting for the vast majority of non-randomized observational studies, whereas Central Africa remains severely underrepresented (Figure 6). This disparity reflects underlying differences in the region's research ecosystem, infrastructure, funding distribution, and institutional capacity.

From a geographical perspective, countries such as South Africa and Uganda disproportionately contribute to the literature, while large areas of West and Central Africa remain unrepresented and thus perpetuate this pattern of exclusion from the evidence base (Figure 4). This lack of geographical diversity undermines the external validity and generalizability of the findings and hampers the formulation of policies tailored to specific local contexts.

This imbalance is illustrated by thematic and methodological trends. Research from Southern Africa tends to use non-randomized observational designs and prioritizes vague and broader outcome measures over more focused and precise issues such as treatment adherence or mental health. In addition, a substantial proportion of this research does not have clear policy relevance, which constrains its value in health system planning and implementation (Figure 5). These findings underscore the urgent need for a more equitable investment in prognosis research that is regionally inclusive, thematically comprehensive, and explicitly tied to policy translation.

3.3 Prognosis Outcomes and Determinant Themes

Mortality and survival were the second most commonly reported outcomes (23.9%), after a broad "Other" category (52.7%) that included composite or multivariate measures (Table 3; Figure 2, left panel). Treatment adherence (13.4%) and biological markers (8.5%) followed, while mental and physical health outcomes together accounted for only 1.5%, indicating major gaps in holistic prognosis research.

Treatment- and adherence-related factors emerged as the most defining determinants of thematic analysis (35.3%). This was followed by the mortality/survival analyses and mental health (10.9%) (Figure 2, right panel). Structural determinants, such as access to health systems, social class, and gender discrimination, were more prevalent than biomedical or behavioral determinants. The findings from this review support the call of existing literature to prioritize structural and policy-based interventions over narrow biomedical fixes [15].

The thematic imbalance described is further illustrated in Figure 6, which illustrates the prevailing pathways from region to design, outcome type, and policy relevance. Most studies originate from the Southern African region, and their designs are mostly non-randomized. These studies largely contribute to the generic “Other” categories, and lack policy relevance. In the diagram, underrepresented themes, such as mental and physical health, received very little visual emphasis, indicating infrequent prioritization. Furthermore, although treatment adherence has a relatively strong connection with policy relevance, the mental health, biological, and physical outcome domains are rarely linked to policy relevance. This analysis adds to the evidence on selective citing and emphasizes the need to shift the research focus.

3.4 Policy Relevance and Temporal Trends

The publication output rose considerably after 2015, peaking around 2020–2021, suggesting an increasing scholarly focus on prognosis pertaining to HIV in sub-Saharan Africa (Figure 1, right panel). Nonetheless, only 43.8% of the studies had some degree of relevance to policy (Table 5), which is an alarming disparity considering the need to apply research evidence to practice. Among the relevant studies, the most frequently cited recommendations were the increased decentralization of ART, incorporation of HIV care into mainstream healthcare, and addressing gendered stigma and access barriers.

Together, these findings bolster the argument that the prognosis of HIV in sub-Saharan Africa is more intricately related to systemic vulnerabilities than to individual, behavioral, or biological factors. To narrow survival disparities, research must operate more effectively within predetermined policy structures, especially in poorly represented regions and neglected determinant domains.

5. Discussion

This review synthesized 218 peer-reviewed studies addressing HIV prognosis in Sub-Saharan Africa (SSA), with a central focus on mortality outcomes and structural determinants. The findings revealed three consistent patterns: persistent geographic disparities, thematic imbalances favoring structural predictors over biomedical or behavioral ones, and a disconnect between research findings and policy uptake.

The spatial inequities observed in prognosis research are stark. As illustrated in Table 2 and Figure 1, 60.7% of the regionally assigned studies were based in Southern Africa, mostly South Africa, while only 11 studies came from West Africa (5.0%) and only two from Central Africa (0.9%). This geographic imbalance affects not only the quantity but also the quality of studies–their thematic focus and methodological rigour. Countries like South Africa are better

positioned because of their robust health information systems and research funding that support the conducting of cohort and surveillance studies on regional populations [16]. In contrast, studies from West and Central Africa tend to be single-site and focus on structural bottlenecks, such as late initiation of antiretroviral therapy (ART), limited diagnostic facilities, weak policy frameworks, and slow responding governance [7,6].

This asymmetry has wider implications. Epidemiological invisibility corresponds to programmatic exclusion, as confirmed visually in the choropleth map (Figure 4). Prognostic study shortages often lead to regions being overlooked for tailored interventions. However, anomalies were present. Nacarapa et al. (2021) tracked localized data from Mozambique, where poorly designed tracking systems revealed high attrition, demonstrating that even small-scale studies can offer powerful insights [17].

The dominance of the structural themes warrants further investigation. Over half of the studies (51.4%) reported composite or undefined outcomes, with only 22.5% centered on mortality/survival and 0.9% on mental health outcomes, as detailed in Table 3 and illustrated in Figure 2 (right panel). Treatment adherence and biological markers comprised 15.6% and 9.2% of the reports, respectively. Thematic distortion is accentuated in the pie chart in Figure 2, where clearly defined structural impediments, such as access to treatment, inadequately funded health systems, and systemic gender imbalances predominate. Atukunda et al. (2022) exemplify such studies in which the prognosis is improved through the provision of structural interventions—in this case, integrating HIV and hypertension care in Uganda, although such models require extensive context-specific evaluation and adaptation [18].

This pattern holds true, even among policy-relevant studies. Only 93 of 218 studies (42.7%) were found to be policy-relevant, as shown in Table 5. Many of these studies highlight chronic gaps in patient monitoring and adherence to therapy compliance systems. For instance, Etoori et al. (2020) raised concerns over South Africa's Tracking Individuals for Enhanced Retention and Evaluation of HIV Treatment Network (TIER.Net) system, which misclassified 36% of patient outcomes [19]. A systematic review by Almeida et al. (2024) found that ART adherence across sub-Saharan Africa ranged widely from 43% to 84%, with unreliable self-reporting and structural barriers contributing to poor adherence [20].

Similarly, Olashore et al. (2020) conducted a meta-analysis that identified depression and anxiety as major determinants of adherence among adolescents living with HIV [21]. Damulak et al. (2021) noted that most existing interventions have only modestly improved adherence, exposing a critical gap for high-impact, contextually tailored implementation strategies across the region [22]. However, the Sankey diagram (Figure 5) illustrates that, although structural narratives often emphasize policy relevance, few studies translate meaningfully into applied health interventions or inform national strategies.

However, behavioral and biomedical predictors remain significantly understudied. As shown in Table 3, only 13 studies (6%) examined mental health or alcohol-related behaviors despite a growing body of evidence supporting their relevance. For example, Rotheram-Borus et al. (2015) demonstrated that alcohol use was a stronger predictor of disengagement from HIV care than depression and intimate partner violence combined [10]. Opting for counseling before ART improved adherence and longevity, as noted by Nutor et al. (2020) [11]. Support group interventions also offer some hope, as Thurman et al. (2024) documented improved ART adherence among South African adolescents participating in structured psychosocial support programs [23].

Biomedical indicators, such as CD4 count, viral load, and hemoglobin levels, remain among the strongest predictors of treatment outcomes; however, they are often overlooked. The predictive value of these indicators was demonstrated in high-quality studies by Ciccacci et al. (2020) and Renju et al. (2020), both of which focused on mortality and treatment failure [24,25]. Njuguna et al. (2020) further reported that rapid viral load testing significantly improved adherence and clinical outcomes among adolescents and young adults in Kenyan clinics [26].

These insights also highlight methodological trends in prognosis research. As shown in Table 4, out of all the articles included in this body of work, 64.2% were non-randomized observational studies. This pattern is further illustrated in Figure 3 (right panel), where other study designs, such as meta-analyses (10.6%), systematic reviews (6.4%), and Random Controlled Trials (RCTs) (6.4%), are far less prevalent. This imbalance suggests heavy reliance on observational research, particularly in South Africa. To enhance scientific rigor, future studies should integrate observational evidence with prospective cohorts or randomized designs where feasible.

Moreover, the gap between scientific evidence and evidence-based policymaking remains a concern. More than half of the studies (57.3%) were classified as having no policy relevance, as indicated in Table 5 and Figure 3 (left panel). For instance, Muzumbukilwa et al. (2024) did not disaggregate ART outcomes by region or link them to national strategy frameworks, thus missing an opportunity for translation into programmatic action [27]. In contrast, Farahani et al. (2021) showed that population-level metrics of repeated viral load suppression can serve as reliable indicators of epidemic control. However, their study was not categorized as policy-relevant, underscoring inconsistencies in the actionable evidence [28].

Figures 4 and 5 further illustrate these insights using visual aids, such as the choropleth map and Sankey diagram. Specifically, Figure 5 demonstrates how studies conducted in areas with high research capacity are funneled into nonrandomized observational studies that use broad outcome definitions and translation-limited pathways to actionable, policy-relevant outputs.

Overall, this review reveals a research landscape that, although descriptively rich, remains limited in thematic diversity, integration, and practical application. The 218 studies assessed between 1989 and 2025 (Table 1) yielded an average citation count of 50.3, reflecting scholarly impact, likely influenced by publications in high-impact (Q1) journals. However, this strength is offset by geographic and thematic imbalances, underscoring the need for more equitable research across regions and topics.

This review had several limitations. Although the dataset was comprehensive, the reliance on thematic coding of abstracts and key findings may have excluded more nuanced insights contained within full-text analyses. Moreover, the absence of a formal risk of bias assessment and lack of meta-analytic synthesis constrains the comparative depth of the findings. Lastly, the coding of policy relevance, while grounded in interpretive logic, remains sensitive to contextual variability, potentially affecting generalizability. These limitations highlight the need to incorporate mixed methods, formal quality assessments, and policy engagement metrics into future reviews.

Overall, prognosis research in SSA is advanced but thematically narrow, revealing an uneven geographic focus. Focused and enhanced outcomes demand diverse behavioral and biomedical factors, multifaceted study designs, direct policy engagement, and translation. A strategic shift that broadens the scope of research while ensuring tangible, transformative impacts on the world is essential.

6. Conclusion

As evidenced from this narrative review of HIV prognosis research conducted in Sub-Saharan Africa, mortality continues to be a critical and policy-relevant outcome, yet it remains inconsistently prioritized across the literature. There is considerable published work emerging from southern and eastern Africa, and although the output has increased significantly, the uneven distribution of prognostic research remains problematic. This is illustrated by the almost complete absence of evidence from Central and West Africa, as seen in the stark regional imbalances depicted in the geographic mapping of studies shown in Figure 1 and Table 2.

Furthermore, studies focusing on behavioral and biomedical predictors, such as those conducted by Djomand et al. (2014) and Papworth et al. (2013), tend to be overshadowed by more dominant structural determinants, which are equally critical and often framed as more integrative predictors. These studies emphasize the vital role of psychosocial and counseling interventions; however, these dimensions remain prognostically underrepresented [1,2]. Similarly, key viral load dynamics, CD4 counts, hemoglobin levels, and other biomedical predictors of outcome

forecasting are under-integrated into the framework, despite robust evidence from researchers such as Ciccacci et al. (2021) and Renju et al. (2020) [24,25].

Of equal concern is the scant translation of research into actionable policy. Although 82.4% of the studies appeared in Q1 journals (Table 1), only 42.7% were deemed policy relevant (Table 5). This underscores the need for more active implementation research within health systems and their actors. As the Sankey diagram (Figure 5) illustrates, most studies, particularly non-randomized observational studies, do not use their findings.

To advance the field, future prognoses must adopt broader multidisciplinary frameworks. It is imperative to diversify geographically, particularly in West and Central Africa, where there are high mortality burdens, but scarce empirical data. More studies should follow the examples of Melaku et al. (2025) and Farahani et al. (22021) in the use of robust cohort data, alongside clearly defined modifiable predictors and system-level constraints [4,28].

Crucially, reducing HIV-related mortality in sub-Saharan Africa requires more than just descriptive epidemiology. It demands a strategic shift toward an equity-centered mixed-methods paradigm that tightly integrates prognosis with health system design, behavioral science, and implementation policy. Only through such an approach can a region fully translate evidence into actionable, context-sensitive interventions that improve population-level HIV outcomes.

Declarations

Ethics approval and consent to participate: Not applicable. This narrative review did not involve human participants or primary data collection.

Consent for publication: Not applicable. No individual data were presented in this review.

Availability of data and materials: All the data synthesized in this review were derived from publicly available peer-reviewed articles published between 2015 and 2024. The underlying literature was accessed via PubMed, Scopus, and Google Scholar. The full citation data are available upon request from the corresponding author.

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Authors' contributions: VG (Valentine Ghanem) conceptualized the review, conducted the literature search and screening, extracted and synthesized the data, and drafted all sections of the manuscript. VG read and approved the final version of the manuscript.

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List of Abbreviations

AIDS: Acquired Immune Deficiency Syndrome
ART: Antiretroviral Therapy
ARV: Antiretroviral
HAART: Highly Active Antiretroviral Therapy
HIV : Human Immunodeficiency Virus
JBI; Joanna Briggs Institute
LMICs: Low and Middle Income Countries
PLHIV : People Living with HIV
Q1: Quartile 1 (Top-ranked journal quartile by impact factor)
RCTs: Random Controlled Trials
SHAP : SHapley Additive exPlanations
SSA: Sub-Saharan Africa
SSRN: Social Science Research Network
TB: Tuberculosis
TIER.NET: Tracking Individuals for Enhanced Retention and Evaluation of HIV Treatment Network

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Figure Legends

Table Legends

Figures

Figure 1: ***Sub-Saharan Africa Regional and Temporal Distribution***

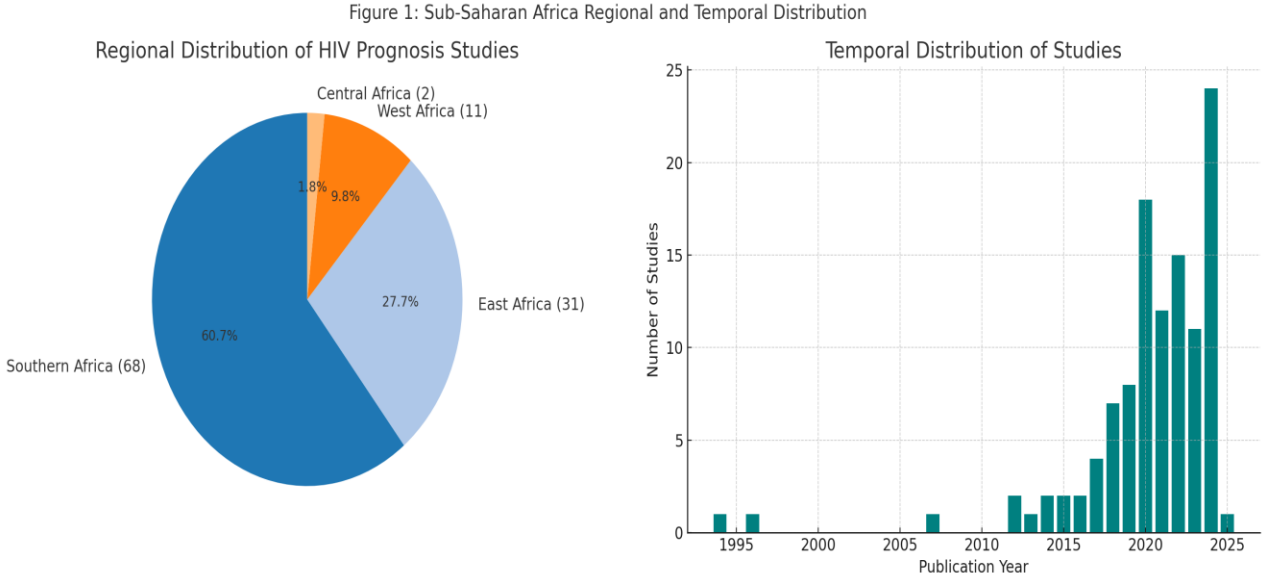

Figure 2

Primary Prognosis Outcomes and Determinant Types

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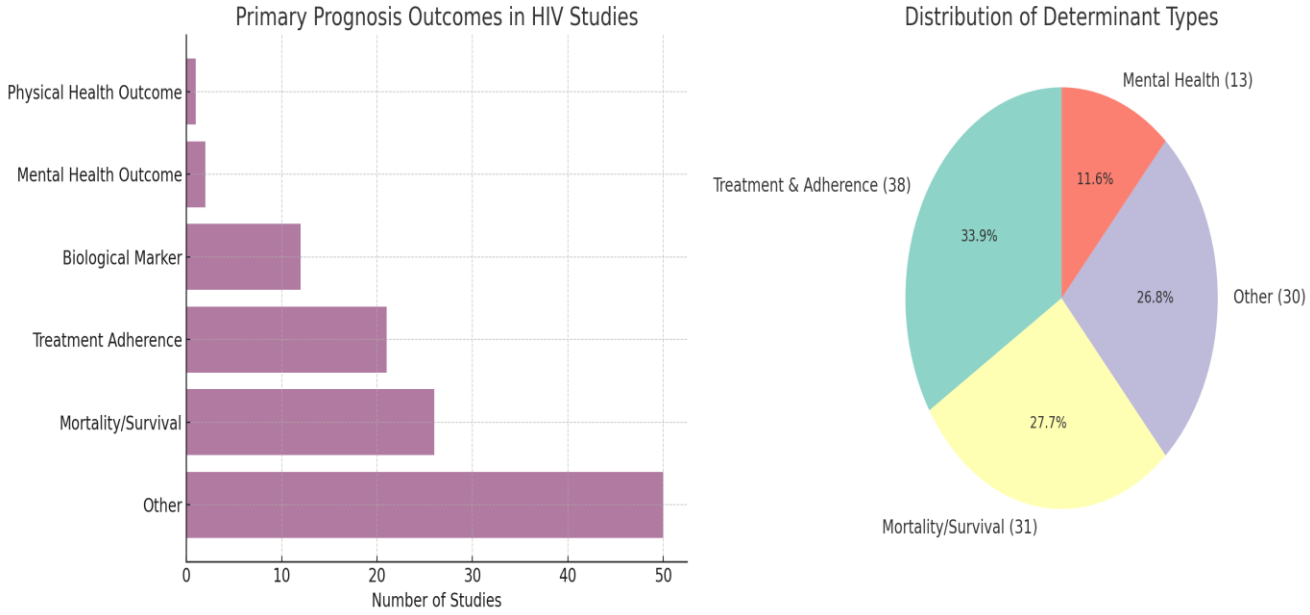


Figure 3

Policy Relevance and Study Design Distribution

Figure 3: Policy Relevance and Study Design Distribution

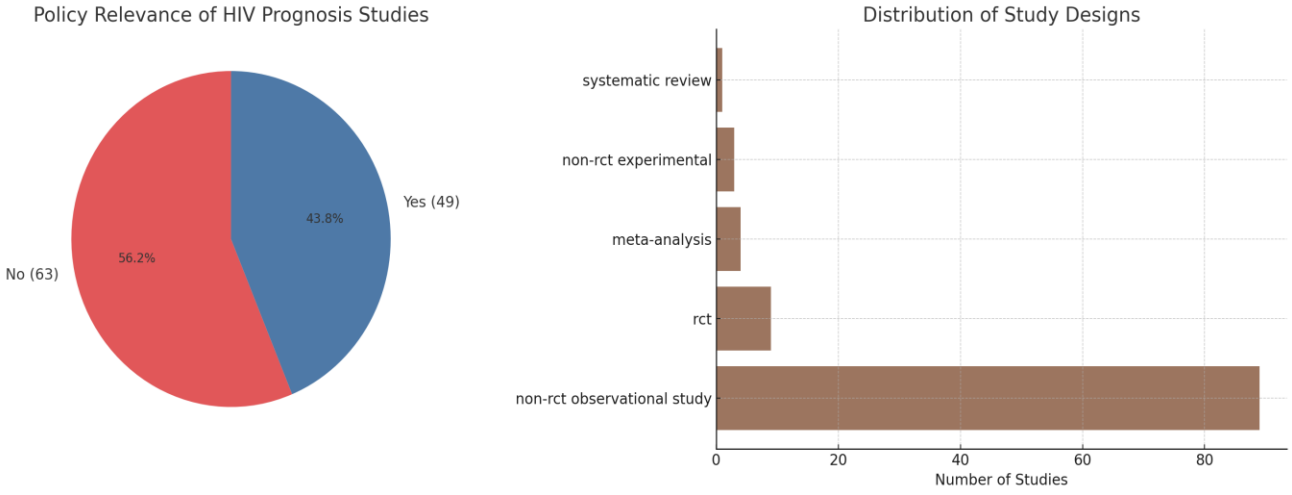


Figure 4

Distribution of HIV Prognosis Studies Across African Regions

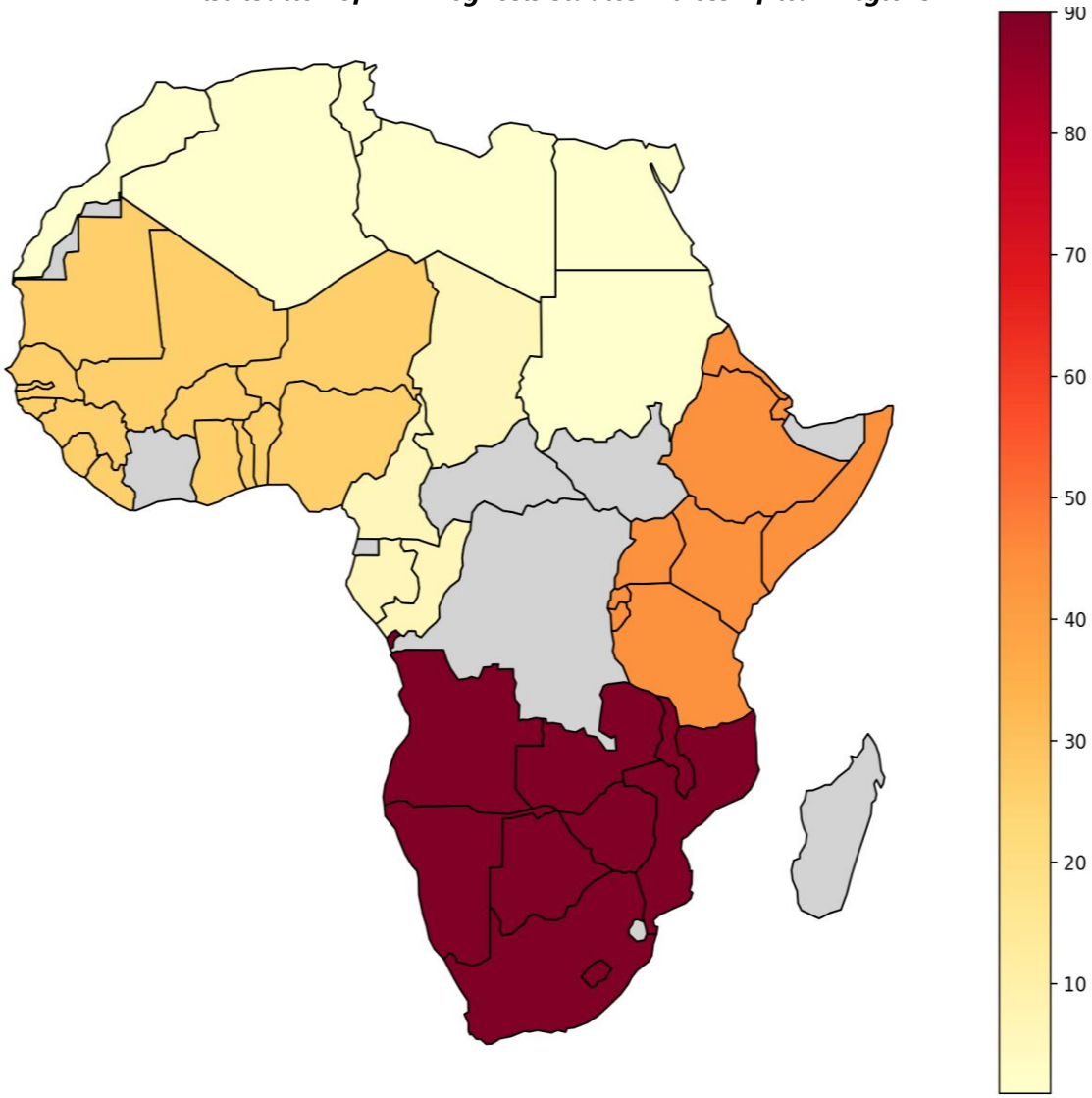


Figure 5

Sankey diagram visualizing the flow of studies from regions to study designs, outcomes, and policy relevance

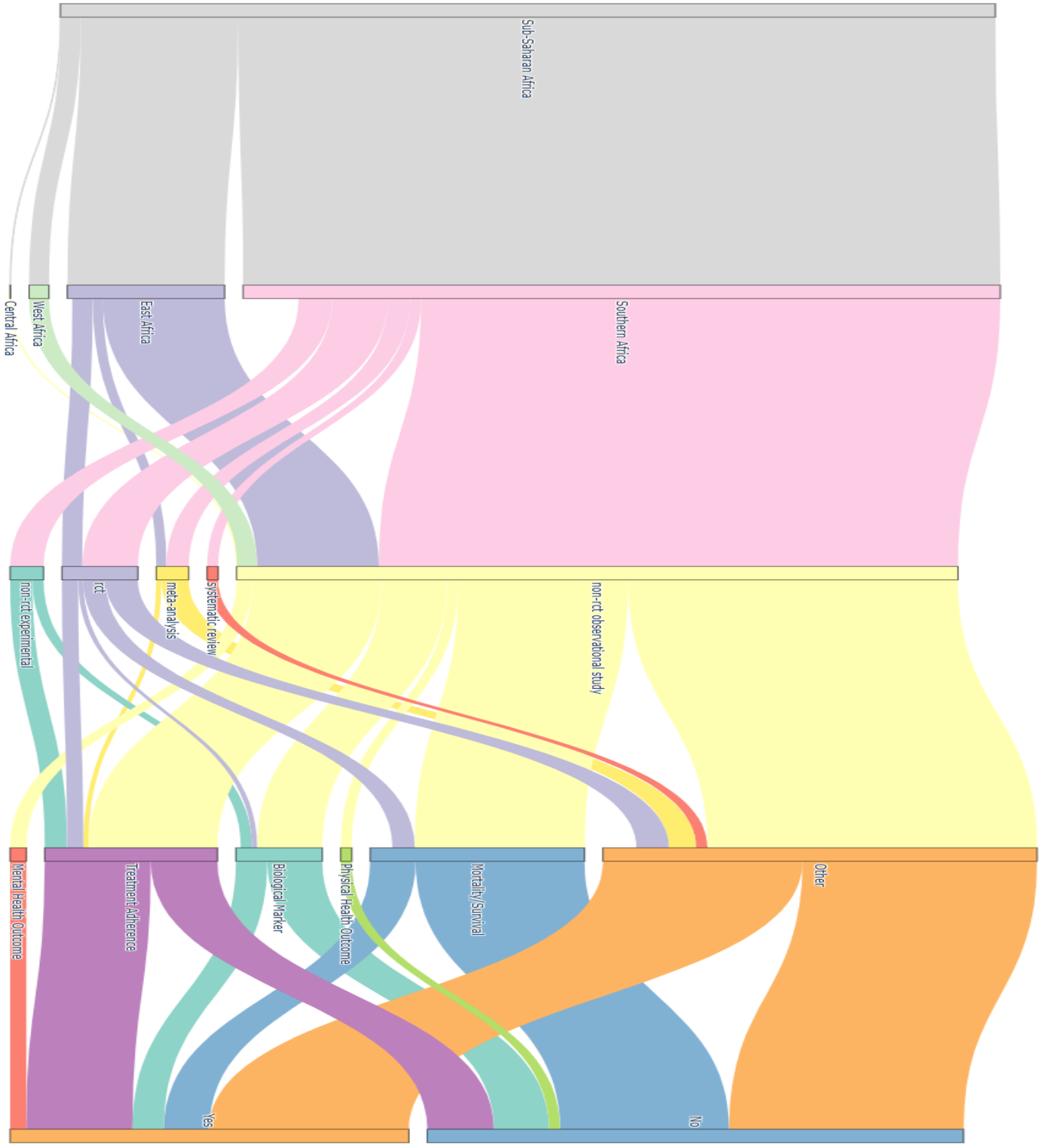
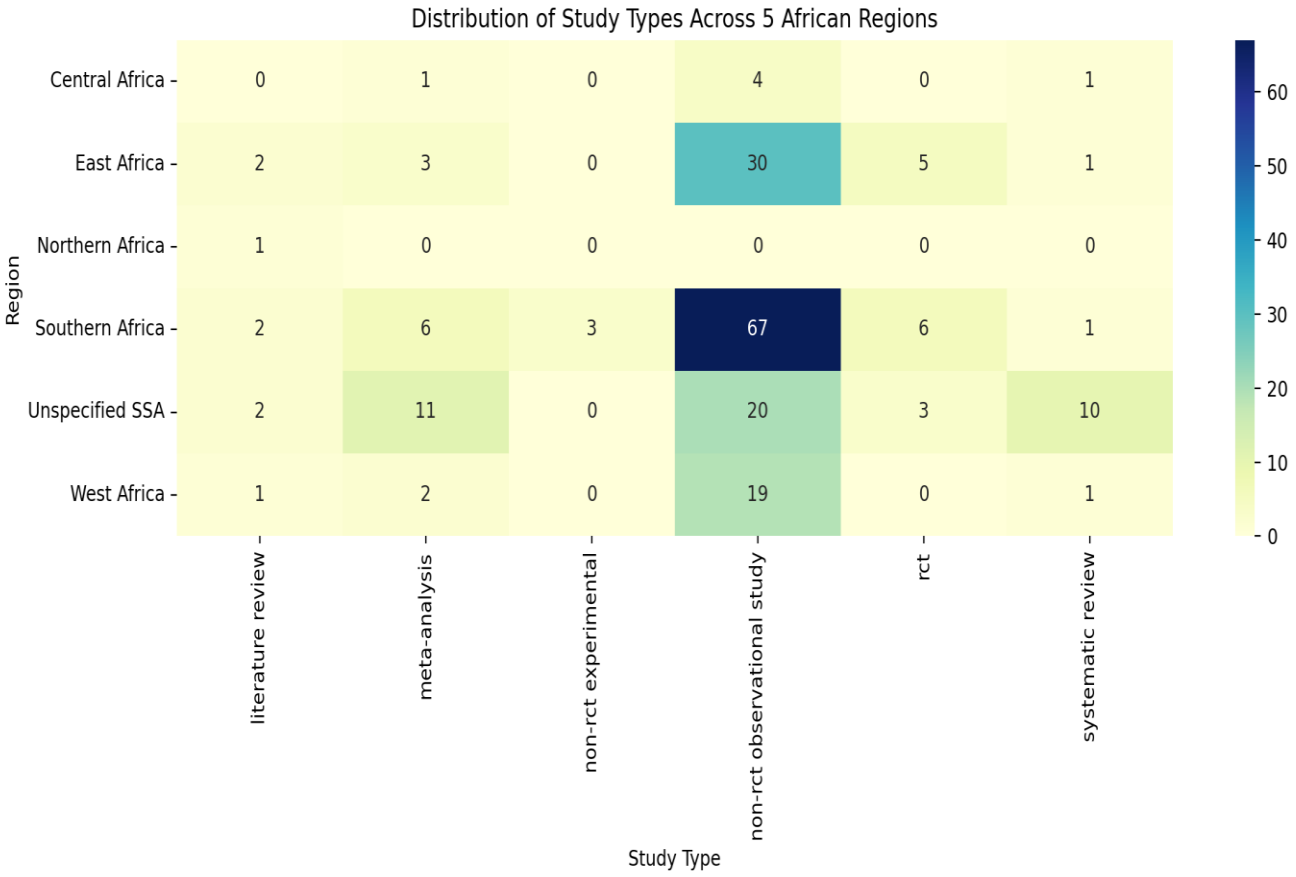


Figure 6

Distribution of Study Types Across 5 African Regions



Tables

Characteristic	Value
Total Studies	218
Study Period	2015–2025
Most Common Study Type	Non-RCT Observational Study
Top Journal Quartile	Q1
Mean Citations	50.3

Table 1

Study Characteristics Overview

Table 2

Region	Number of Studies	Percentage (%)
Sub-Saharan Africa	106	48.6
South Africa	68	31.2
East Africa	31	14.2
West Africa	11	5.0
Central Africa	2	0.9

Geographic Distribution of Studies

Table 3

Primary Prognosis Outcomes

Primary Outcome	Number of Studies	Percentage (%)
Other	112	51.4
Mortality/Survival	49	22.5
Treatment Adherence	34	15.6
Biological Marker	20	9.2
Mental Health Outcome	2	0.9
Physical Health Outcome	1	0.5

Study Type	Number of Studies	Percentage (%)
Non-RCT Observational Study	140	64.2
Meta-Analysis	23	10.6
Systematic Review	14	6.4
RCT	14	6.4
Literature Review	8	3.7
Non-RCT Experimental	3	1.4

Table 4

Study Design Distribution

Policy Relevance	Number of Studies	Percentage (%)
No	125	57.3
Yes	93	42.7

Table 5

Policy Relevance Assessment