

Health Signage, Linguistic Exclusion, and the Politics of Biomedical Access in Multilingual Southern Taraba, Nigeria: A Linguistic Landscape Analysis

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ABSTRACT

Health-facility signage in multilingual postcolonial societies does more than instruct patients: it allocates communicative authority, marks the languages of biomedical legitimacy, and determines whose linguistic repertoire counts as adequate for independent engagement with the written health-care environment. This study examines how language choice in health signage constructs a stratified semiotic order in Southern Taraba State, Nigeria, drawing on a photographic corpus of one hundred and ten items documented across primary health-care centres, referral hospitals, a federal teaching hospital, private medical facilities, and NGO premises spanning Ibi, Wukari, Takum, Donga, and Ussa Local Government Areas. Using a qualitative multi-site linguistic landscape design, the study analyses signage across five dimensions: producer category, language choice, communicative register, spatial emplacement, and health literacy implications. The analysis is theorised through linguistic landscape theory (Landry & Bourhis, 1997; Ben-Rafael et al., 2006), geosemiotics (Scollon & Scollon, 2003), orders of indexicality (Blommaert, 2010), postcolonial critiques of development discourse (Escobar, 1995; Mignolo, 2000), and health literacy theory (Nutbeam, 2000). The findings demonstrate that English dominates health signage across all producer categories such as governmental, international-donor, NGO, pharmaceutical, and private, while the indigenous community languages of Southern Taraba (Jukun, Kuteb, Tiv, Chamba) are entirely absent from all documented signage. Two items introduce Hausa, a regional lingua franca, as a partial secondary code, revealing a graduated linguistic hierarchy. The article introduces graduated structural exclusion — the condition in which selective lingua franca accommodation performs multilingual outreach while leaving indigenous language marginalisation intact — as a contribution to linguistic landscape studies, postcolonial health communication scholarship, and language planning policy.

Keywords: *health signage; linguistic landscape; graduated linguistic hierarchy; linguistic exclusion; biomedical access; health literacy; postcolonial sociolinguistics; Southern Taraba; Nigeria*

INTRODUCTION

When a patient or caregiver enters a primary health-care facility in Southern Taraba State, Nigeria, they encounter a wall saturated with text. Treatment protocol charts, Integrated Management of Childhood Illness (IMCI) flowcharts, Water, Sanitation, and Hygiene (WASH) education posters, quality assessment scorecards, development project plaques, pharmaceutical promotional materials, and patient feedback notices constitute a dense, visually demanding written environment. In virtually every documented facility across five Local Government Areas (LGAs): Ibi, Wukari, Takum, Donga, and Ussa, every text in that environment is in English. Not a word appears in Jukun, Kuteb, Tiv, Chamba, Fulfulde, or any other language that the surrounding communities use as their primary medium of domestic, social, and economic life.

This study examines the health signage landscape of these five LGAs as a case study of the relationship between linguistic choice, public health communication, and the politics of biomedical access in a multilingual postcolonial society. Rather than assuming that the absence of indigenous languages from public health signage automatically signifies ideological marginalisation, the study recognises several practical factors that may constrain their written use. Many indigenous languages in Southern Taraba continue to face challenges of orthographic standardisation, uneven literacy in the written code, limited development of specialised biomedical terminology, longstanding community preferences for oral modes of health communication, and the procurement, staffing, and budget constraints within which primary health-care facilities actually operate.

These considerations may legitimately influence institutional decisions regarding the language of written health information and therefore warrant careful consideration before attributing linguistic patterns solely to exclusionary language ideologies. The constraints just listed are not abstract objections but live conditions under which English-only signage may, in some facilities, reflect what is locally implementable rather than what is locally

preferred, and the study takes seriously the operational dilemmas of administrators who must communicate across multiple, unevenly documented linguistic communities, often within very limited budgetary and personnel resources, with no off-the-shelf templates or translation pipelines available to them.

Nevertheless, the empirical evidence does not support reading these constraints as the full explanation. Across the surveyed health facilities, English overwhelmingly functions as the exclusive written medium of institutional communication, while indigenous languages are entirely absent from even basic informational or directional signage. The Hausa counter-example is the study's clearest comparative lever, and its evidentiary weight, as well as its limits, deserves careful specification. Hausa was incorporated into two NGO-sponsored signs within this landscape despite sharing, with the indigenous languages of Southern Taraba, the broader West African context in which any language must negotiate choices of written code and biomedical terminology. To the extent that incorporation tracks purely technical readiness, the differential treatment of Hausa and the absent indigenous-language signage requires explanation, and the most economical reading is that institutional judgements about which communities warrant written engagement, rather than orthographic or terminological feasibility alone, are shaping the outcome.

The study is explicit, however, about the limits of this inference. Three alternative readings remain available and cannot be ruled out from signage data alone, and naming them is part of the analysis rather than a concession to its critics. First, the Hausa signs were produced under NGO funding cycles and project-based translation support, which carry different incentives, timelines, and procurement arrangements than state health-facility signage; the counter-example may therefore show what external partners can achieve in delimited projects rather than what government facilities can sustain as routine practice. Second, Hausa has a historically consolidated written tradition and a regional reach that the indigenous languages of Southern Taraba do not share in the same way, and the differential treatment may, at the margins, reflect a real difference in technical readiness even where structural exclusion remains the best explanation at the level of patterned outcome the study concerns itself with. Third, an interpretation that treats the absence of indigenous languages

as predominantly pragmatic may still be partly correct for specific facilities, and the study does not claim that every English-only sign reflects ideological judgement. What the Hausa counter-example isolates is the fact that practical constraints, taken together, cannot be the complete explanation; the incorporation of Hausa in the same constraint environment shows that something beyond feasibility is operating, even if that "something" cannot be fully specified from signage evidence alone.

Accordingly, this study interprets the predominance of English as part of a broader sociolinguistic regime in which practical communication considerations intersect with inherited language hierarchies. English continues to function as the language associated with biomedical authority, administrative legitimacy, and official documentation, while indigenous languages remain largely confined to interpersonal and oral domains despite their centrality to everyday community life. The resulting pattern constitutes a form of structural exclusion, not because institutions necessarily reject indigenous languages on ideological grounds, but because existing communicative practices systematically fail to extend written health communication into the linguistic repertoires of local communities.

In this sense, the exclusion identified by the study is institutional rather than intentional: it emerges through routine language planning decisions that privilege administratively established languages while leaving indigenous languages outside the written ecology of public health, even where those languages continue to serve as primary means of communication in everyday life. The interpretation is offered not as a verdict on individual administrators but as a characterisation of the patterned outcome that routine decisions, taken in aggregate, produce, and the framing is explicitly bounded: the claim is about the patterned systemic outcome, not about the motives of any individual act of signage production. A careful practitioner reading the same evidence could, in good faith, emphasise pragmatism over exclusion at the level of any particular facility, and the study is not disposed to dispute that; what it disputes is that pragmatism alone accounts for the pattern as a pattern.

Moving from the documentation of this pattern to interventions that reduce it requires a coordinated set of mechanisms, staged according to current capacity. The mechanisms are

sketched here without empirical testing; their purpose is to indicate the practical shape that applied follow-up work would need to take, not to substitute for it. At the orthographic and terminological level, sustained regional partnerships between state language-planning bodies, university linguistics departments, and community Language Boards are needed to consolidate written standards and basic health-register glossaries for the indigenous languages of Southern Taraba.

Practical sequencing should distinguish short-term gains (consolidating directional and instructional terms against existing community-written conventions, even where these are not yet fully standardised at regional level) from medium-term formalisation (codified health vocabulary validated by community representatives), with the latter building on the former rather than being treated as a precondition for any signage activity. At the material level, dedicated state budget lines allocated within recurring facility rather than project budgets are needed to make multilingual signage a sustained routine; recurring line items, rather than one-off allocations, signal that multilingual communication is part of standard practice, and the current implementation gap is in part a budgeting gap that recurring allocations are the most direct institutional change to address.

At the personnel level, a training pipeline for indigenous-language health interpreters, embedded in facility staffing rather than contracted in episodically, would extend the practical reach of any written materials produced. Initial training should cover health-register vocabulary, interpreting ethics, and confidentiality; retention mechanisms (posting stability, career-progression recognition) are needed to prevent trained interpreters from rotating out of frontline roles. At the design and content level, demonstration signage templates and pictographic supports should be co-developed with community representatives, piloted in a defined subset of facilities, and revised iteratively before wider rollout. Templates reduce per-facility design and translation cost; pictographic supports make signage legible across literacy variation; co-development reduces the risks of mistranslation and symbolic imposition.

At the oral and multimodal level, recorded audio advisories in facility-appropriate languages, pictorial dosing and appointment instructions, and community-health-worker

interpretation should be deployed as parallel, short-term supplements while written materials are consolidated; these modalities meet communities where the present orthographic ceiling blocks written reach, and they need not wait for full written standardisation. At the coordination level, formal NGO–state coordination arrangements, agreed in advance and time-bounded, would allow the multilingual adaptation that external partners have demonstrated in delimited projects to be institutionally absorbed into routine state practice rather than lapsing at project close; such arrangements could specify translation handover, design-template sharing, and joint review cycles so that NGO-produced materials inform, rather than substitute for, state production.

At the implementation level, staged rollout — beginning with directional signage in a small number of pilot facilities, expanding to instructional signage as orthographic consolidation progresses, and culminating in longer-form health messages — aligns the pace of change with current capacity and protects against the failure modes of premature comprehensiveness; each stage produces evidence for the next, and each stage remains within what current administrators can sustainably maintain.

The present study does not develop or test these mechanisms; its contribution is analytic rather than applied, and that boundary is itself worth naming. A critique of structural exclusion can describe who is reached by current signage and who is not, but it cannot, on its own, specify how the gap is to be closed under the very resource and capacity conditions that produced it, and the mechanisms sketched above indicate direction rather than substitute for the piloting, costing, and stakeholder negotiation that applied work would require. The findings offered here should therefore be read as a necessary first step: a characterisation of the problem that subsequent applied work, undertaken jointly with health administrators, language planners, language boards, and community representatives in Southern Taraba, would need to take up.

Health communication scholars have long established that the language in which health information is communicated is itself a determinant of comprehension, uptake, and agency (Berkman et al., 2011; Nutbeam, 2000; Paasche-Orlow & Wolf, 2007). In multilingual postcolonial societies, the divergence between the written language of health institutions

and the spoken languages of the communities they serve is a structural outcome of language ideology (Blommaert, 2010; Phillipson, 1992; Woolard & Schieffelin, 1994). Linguistic landscape research — defined by Landry and Bourhis (1997, p. 25) as 'the language of public road signs, advertising billboards, street names, place names, commercial shop signs, and public signs on government buildings' — has provided a powerful conceptual vocabulary for analysing language visibility in public space. Yet its application to health-care environments in non-metropolitan African settings remains underdeveloped (Banda, 2010; Makoni et al., 2007; Nyambi, 2019). This study addresses that gap through an empirical multi-site analysis of the full semiotic ecology of Southern Taraba's health-facility environment.

The study makes five interconnected contributions. Empirically, it provides the first multi-site linguistic landscape analysis of health-facility signage across five LGAs in Southern Taraba State. Theoretically, the study refines existing scholarship on linguistic inequality by entering into direct dialogue with three established frameworks: *linguistic hierarchy*, which concerns the differential prestige ascribed to competing codes; *orders of indexicality*, which account for the processes through which languages accrue social value; and *symbolic violence*, which describes the institutional reproduction of linguistic power, and advances, as its distinct analytic move, a graduated model of structural exclusion that reframes language marginalisation as a measurable continuum of access rather than a binary presence–absence opposition. Where these prior frameworks foreground prestige ordering, the constitution of indexical value, and the institutional mechanics of reproduction, respectively, the present model isolates the *variable intensity* and *operational modality* of exclusionary effect on speakers' access to health information, supplying an empirically tractable scale along which concrete sites of marginalisation can be plotted and comparatively assessed.

The study makes five interrelated contributions to scholarship on linguistic landscape studies, language policy, and health communication. It provides the first multi-site linguistic landscape analysis of health-facility signage across five Local Government Areas (LGAs) in Southern Taraba State, Nigeria. It documents the distribution of languages across different healthcare facilities and generates new empirical evidence on the relationship between language choice and institutional communication. Furthermore, it addresses an important

gap in linguistic landscape scholarship by presenting evidence from a multilingual region of Nigeria that has received little scholarly attention.

In addition, the study proposes a graduated model of structural exclusion to explain patterns of linguistic inequality in multilingual healthcare settings. Rather than replacing existing theories, the model builds on three complementary perspectives. Linguistic hierarchy explains how institutions assign different levels of prestige, authority, and legitimacy to competing languages. Orders of indexicality explain how languages acquire different social meanings and communicative values across institutional contexts. Symbolic violence demonstrates how institutional practices legitimise dominant languages while marginalising others. Drawing on these perspectives, the model examines how access to written health information varies across three interrelated dimensions: communicative function, institutional actor, and signage category.

Furthermore, the model extends existing explanations of linguistic inequality by identifying different degrees of exclusion within the same multilingual environment. English occupies the highest position because healthcare institutions recognise it as the language of official authority and biomedical legitimacy. Regional lingua francas occupy an intermediate position because they provide limited communicative accommodation without challenging the institutional dominance of English. Indigenous languages occupy the lowest position because healthcare institutions exclude them almost entirely from written health communication. In other words, the framework moves beyond simply identifying the absence of indigenous languages. Instead, it demonstrates how different categories of signage, including directional, informational, promotional, and participatory signs, distribute unequal communicative rights, institutional visibility, and access to health information among different linguistic groups. Consequently, the model provides a comparative framework for examining varying degrees of institutional inclusion and exclusion across multilingual healthcare systems.

Again, the study broadens the scope of linguistic landscape research by examining pharmaceutical promotional materials and patient feedback mechanisms alongside more conventional forms of health signage. These communicative domains have attracted limited

scholarly attention despite their importance in everyday healthcare practice. Furthermore, the findings show that commercial advertising, administrative procedures, and public health communication collectively privilege particular linguistic repertoires while restricting others. Consequently, the study provides a more comprehensive account of how language policy operates through routine healthcare practices rather than through official policy documents alone.

In addition, the study develops an analytical framework that can be applied beyond the present case study. The concept of graduated structural exclusion does not merely restate the dominance of official languages. Rather, it explains how different forms of exclusion emerge across communicative functions, institutional actors, and signage categories. Consequently, the framework enables comparative analysis of both the nature and the intensity of linguistic marginalisation across multilingual institutional settings. This broader applicability extends the analytical value of the study beyond Southern Taraba.

Finally, the study situates the linguistic landscape of Southern Taraba within the broader political economy of postcolonial healthcare governance. It argues that the distribution of languages on health signage reflects the interaction of several structural forces rather than language policy alone. State language policy, donor-funded health interventions, biomedical standardisation, and local sociolinguistic hierarchies collectively determine which languages appear in public health communication and which remain excluded. Furthermore, these structural forces shape institutional decisions about linguistic legitimacy and communicative access. Consequently, the linguistic landscape of healthcare reflects broader relations of power that influence who can access written health information within multilingual societies.

These contributions demonstrate that health-facility signage functions not only as a medium for communicating health information but also as a mechanism through which institutions establish authority, reproduce linguistic hierarchies, and regulate access to public communication. In other words, linguistic visibility and invisibility are institutional outcomes rather than neutral communicative choices. Consequently, the study contributes to current debates in linguistic landscape studies, language policy, and multilingual health

communication by providing a theoretically grounded and empirically supported explanation of how linguistic exclusion operates within postcolonial healthcare institutions.

RESEARCH METHODS

This study adopts a qualitative multi-site linguistic landscape design centred on a photographic corpus of thirty-one signs and display environments documented across health-facility and health-adjacent public spaces in five LGAs of Southern Taraba State: Ibi, Wukari, Takum, Donga, and Ussa. The corpus was assembled in two phases. Phase One documented twenty items across Ibi and Wukari LGAs following a domain-stratified protocol adapted from the established methodology of linguistic landscape research (Gorter, 2006; Shohamy & Gorter, 2009). Phase Two extended documentation to FUTH Wukari (seven additional items) and to General Hospitals and PHCCs in Takum, Donga, and Ussa LGAs (four further items), expanding both the institutional range and the geographic scope of the corpus.

The domain-stratification protocol distinguished between: outdoor institutional identifier signs; indoor clinical display materials; health-promotion materials; institutional accountability and governance documents; patient engagement mechanisms; pharmaceutical promotional environments; and mixed-use display surfaces. This expanded taxonomy moves beyond the institutional-identifier and clinical-protocol focus of earlier health linguistic landscape studies to encompass the full communicative ecology of a health facility, including the pharmaceutical promotional wall and the patient feedback system — two domains not previously addressed in health linguistic landscape scholarship.

Each item in the corpus was subjected to a multi-dimensional analysis addressing: (a) producer category (top-down state; top-down federal; top-down international-donor; top-down NGO; bottom-up private commercial; bottom-up pharmaceutical); (b) language choice and distribution; (c) communicative register and function; (d) spatial emplacement; (e) visual-verbal relationship; (f) health literacy implications; and (g) for bilingual items, the distribution of languages across structural elements. The analysis employs Blommaert's (2010) orders of indexicality as an organising analytical lens, Nutbeam's (2000) tripartite health literacy framework to differentiate items by implied reader competence, and the top-

down/bottom-up distinction of Ben-Rafael et al. (2006) as a structural variable throughout. The researchers are lecturers at Federal University Wukari and members of the wider Wukari community with longstanding familiarity with the region's sociolinguistic and cultural environment, including its Jukun ethnolinguistic heritage. While this insider positionality facilitated access to healthcare facilities, enhanced contextual understanding of local communicative practices, and enabled more informed interpretation of multilingual signage, it also presented potential analytical risks. In particular, prior familiarity with Jukun language politics could predispose the researchers to foreground Jukun linguistic exclusion, influence which features of the linguistic landscape appeared analytically salient, or shape interpretations of the symbolic significance of particular signs relative to those associated with other language communities.

To address these possibilities, the study incorporated several reflexive safeguards throughout data collection and analysis. First, data collection followed a standardised documentation protocol in which all legible, publicly visible signs within the predetermined boundaries of each health facility were photographed irrespective of language, function, ownership, or perceived significance. This exhaustive approach reduced the likelihood of selectively recording signage that confirmed prior expectations about linguistic exclusion. Second, each photograph was catalogued with accompanying contextual metadata, including location, sign type, producer, communicative function, and language(s) represented before interpretive coding commenced, ensuring that descriptive documentation remained analytically distinct from subsequent interpretation. Third, coding categories were derived from the observable characteristics of the signage rather than from assumptions regarding the status of any particular language, allowing patterns of linguistic distribution to emerge inductively from the dataset. Finally, throughout the analytical process, the researchers maintained a reflexive stance by continually interrogating how their cultural familiarity might shape interpretation and by evaluating claims against the complete corpus of documented signage rather than isolated examples. These procedures were intended to ensure that conclusions regarding the relative visibility or exclusion of Jukun and other

languages were grounded in systematic empirical evidence rather than in researchers' prior expectations or cultural affiliation.

RESULTS & DISCUSSION

Southern Taraba State, in north-eastern Nigeria, is among the most ethnolinguistically diverse regions in the country, with Blench (2019) documenting over fifty language varieties within Taraba State. Southern Taraba is home to Jukun (Wukari LGA), Kuteb Chamba, Jukun (Takum and Ussa LGAs), Jukun, Chamba, Tiv (Donga, Takum, and Ibi LGAs), Chamba, Jukun (Donga LGA), and Fulfulde-speaking communities, alongside Hausa as a regional lingua franca and English as the language of formal education, the civil service, and the professional class. This sociolinguistic ecology produces what Makoni et al. (2007) characterise as a diglossic health-communication environment: the language of institutional health authority is structurally divorced from the oral media through which the majority of the population manages illness, seeks care, and evaluates health information.

Corpus Overview: The Graduated Linguistic Hierarchy

The analysis draws on a corpus of one hundred and ten health-signage items documented through a two-phase sampling design across five Local Government Areas (LGAs) in Southern Taraba. Phase One employed a domain-stratified sampling strategy within two LGAs to capture variation across different categories of health facilities and signage functions. Furthermore, Phase Two extended the geographical coverage to three additional LGAs to determine whether the linguistic patterns identified during the initial phase recurred across a broader regional setting. The sampling strategy prioritised variation in institutional settings, communicative functions, and geographical locations rather than statistical representativeness. Consequently, the corpus provides a robust basis for identifying recurring institutional patterns in the linguistic landscape of healthcare while recognising that it does not capture every form of health communication operating within the region.

In addition, the present study focuses specifically on the written linguistic landscape of health facilities. The analysis therefore examines languages that institutions choose to display publicly through permanent and semi-permanent signage. This analytical focus

necessarily excludes other communicative practices, including oral interpretation by health workers, interpersonal translation by relatives or community members, spontaneous code-switching during clinical encounters, and unofficial handwritten notices that may circulate temporarily within health facilities. These communicative resources undoubtedly contribute to patients' access to healthcare information. However, they operate through different semiotic channels and require different methodological approaches, such as participant observation, discourse analysis, or ethnographic interactional studies. They therefore fall outside the scope of the present linguistic landscape investigation.

Within the documented corpus, a consistent three-tier linguistic hierarchy emerges. English occupies the highest position, appearing across almost the entire corpus and functioning as the principal language of institutional authority, biomedical legitimacy, and official communication. Furthermore, English occurs across diverse producer categories, communicative functions, spatial settings, and all five sampled LGAs, indicating a high degree of institutional consistency. Hausa occupies the second tier and appears only in a small number of signs associated with targeted public health campaigns produced by international non-governmental organisations. Its presence therefore reflects selective communicative accommodation rather than institutional multilingualism. Indigenous languages—including Jukun (Wapan and Wanu), Kuteb, Tiv, Chamba, and Fulfulde—occupy the lowest position because they are entirely absent from the documented corpus. The analysis found no lexical, orthographic, or symbolic representation of these languages in any of the official health signs examined across the sampled facilities.

In other words, the study does not argue that indigenous languages are absent from healthcare communication in Southern Taraba. Rather, it demonstrates that they are absent from the official written communicative resources through which healthcare institutions publicly organise, regulate, and disseminate health information. This distinction is important because linguistic landscape research examines institutional language choices rather than the totality of communicative practices within a speech community. Oral mediation, interpersonal translation, and informal communicative support may compensate for the absence of indigenous languages in particular clinical encounters. Nevertheless, these

practices do not alter the linguistic composition of the institutional signage landscape or the language ideologies reflected in official public communication.

Consequently, the findings should not be interpreted as a comprehensive description of the entire semiotic ecology of healthcare communication in Southern Taraba. Instead, they should be understood as evidence of how healthcare institutions construct linguistic visibility within their official public spaces. The repeated dominance of English, the highly restricted use of Hausa, and the complete exclusion of indigenous languages from the documented signage reveal a stable institutional hierarchy of linguistic visibility across the sampled sites. This pattern provides empirical support for interpreting health-facility signage as a domain in which institutional language choices reproduce unequal forms of linguistic recognition and access. At the same time, the study acknowledges that future ethnographic research integrating linguistic landscape analysis with observations of spoken interaction, translation practices, and informal communicative resources would provide a more comprehensive account of the wider semiotic ecology of healthcare communication in Southern Taraba.

Table 1. Corpus Summary: Health Signage by Site, Producer Category, Register, and Language (bilingual items italicised in Language column)

Sign / Poster	Producer	Register / Function	Language(s)
Male Treatment — room sign, FUTH Wukari	Top-down: Federal (FUTH)	Clinical wayfinding; gendered space	English only
Triage Room — room sign, FUTH Wukari	Top-down: Federal (FUTH)	Emergency wayfinding; triage	English only
FUTH Wukari / USAID / AHNI institutional board	Top-down: Federal + Intl donor	Institutional identity; donor acknowledgement	English only
FUTH Wukari noticeboard (Anaesthesiology/Pharmacy/Transport rosters + Fellowship of Christian Nurses flyer)	Top-down: Federal + Professional assn	Admin governance; professional/religious socialisation	English only
Complaints & Suggestion Box + instruction sign	Top-down: Federal (FUTH)	Patient feedback; institutional accountability	English only
Pharmaceutical promotional wall (Dutasin, Levkast, Realflex,	Bottom-up: Commercial	Prescriber-directed drug marketing	English only

Fratonebetic, Inflanil, Cardicap, No-Ach, Duozol, etc.)	(pharma companies)			
COVID-19 Safety Notice (Wear Face Mask / Wash Your Hand / Keep Social Distance)	Top-down: State/Federal	Public health emergency directive; behavioural	English only	
First Referral Hospital Ibi — Taraba State HSMB	Top-down: State	Institutional identifier; political sponsorship	English only	
NEDC — OPD Ward construction, General Hospital Ibi	Top-down: Federal (NEDC)	Development accountability; infrastructure	English only	
PEF/PCNEI — Renovation of Science Laboratory, Govt Secondary School Ibi	Top-down: Federal	Development accountability; education infrastructure	English only	
Zena Primary Health Care Clinic, Sabon Pegi	Bottom-up: Private	Commercial health-service identifier	English only	
Akogachris Medical Laboratory (AMLAS Lab Centre), Ibi	Bottom-up: Private	Commercial biomedical services; brand identity	English only	
Nigeria Police Division HQ Ibi (adjacent civic)	Top-down: Federal	Coercive state authority	English only	
Wapan Nghaku PHCC — exterior board, BHCPF logo	Top-down: State/Federal (BHCPF)	Public health-facility identifier	English only	
IMPACT Project 2025 plaque — TSPHCDA/World Bank	Top-down: Intl donor + State	Development accountability; infrastructure	English only	
Protocol for Diarrhoea, ARI & Malaria (IBSDLEIP, Taraba State)	Top-down: State	Clinical treatment protocol; biomedical technical	English only	
IMCI Case Management flowchart — African Dev. Bank/IRSDLEIP	Top-down: Intl donor + State	Clinical triage algorithm; biomedical technical	English only	
NPHCDA BHCPF Quality Assessment Score Card — World Bank	Top-down: Federal/Intl donor	Institutional accountability; governance	English only	
WASH Poster ×2 — IMPACT/World Bank/TSPHCDA	Top-down: Intl donor + State	Public health education; development discourse	English only	
Lafiyan Yara HIV Awareness poster — aidsfonds/SFH/ViiV Healthcare	Top-down: Intl NGO	HIV testing promotion; public health education	<i>English + Hausa</i>	
Clubfoot Treatment poster — English (Miraclefeet/WACHEF)	Top-down: Intl NGO	Specialist health campaign; service promotion	English only	
Clubfoot Treatment poster — Hausa (Miraclefeet/NACHEF)	Top-down: Intl NGO	Specialist health campaign; service promotion	<i>Hausa (+ English labels)</i>	

Vitamin A Boost poster — Helen Keller International/GiveWell	Top-down: Intl NGO	Nutrition/child health promotion	English only
General Hospital Takum — room/ward signs; FHI 360 HIV/AIDS materials	Top-down: State + Intl NGO	Institutional identifier; disease prevention	English only
General Hospital Donga — name board; NPHCDA immunisation poster	Top-down: State + Federal	Institutional identifier; vaccination campaign	English only
Ussa LGA PHCC signage, Lissam; MNCH promotion materials	Top-down: State/LGA + NGO	Institutional identifier; maternal/child health	English only
Divine Medical Diagnostics Imaging & Clinical Support Centre	Bottom-up: Private	Commercial diagnostic imaging; service list	English only
African Church St. Peter Ibi Parish board (counter-reference)	Bottom-up: Religious community	Community schedule; religious socialisation	English + Hausa (embedded)

Federal Tertiary Signage: The Full Semiotic Ecology of FUTH Wukari

The Federal University Teaching Hospital (FUTH) Wukari provides the most comprehensive single-facility illustration of the institutional health-signage landscape, containing seven distinct signage domains within one healthcare environment. The institutional identity board—*"FEDERAL UNIVERSITY TEACHING HOSPITAL WUKARI / Cares For You / With Support From: USAID FROM THE AMERICAN PEOPLE / Through: AHNI"*—is presented entirely in English. The sign positions the hospital within a transnational network of public health governance in which institutional authority, donor visibility, and biomedical legitimacy are communicated through a single linguistic code. Furthermore, the arrangement of the sign foregrounds the hospital as the provider of care and the international donor as the source of institutional support, while the local patient population remains the implied recipient of these services. Although the hospital principally serves multilingual communities, including speakers of Jukun and Kuteb, these languages do not appear within the institutional text.

This pattern is consistent with Escobar's (1995) argument that development institutions construct particular relationships between knowledge, authority, and beneficiaries through institutional discourse. The present study draws on this perspective not to reject Western knowledge systems in their entirety, but to examine how institutional

practices privilege particular languages and forms of knowledge over others within specific sociolinguistic contexts. In other words, postcolonial theory functions here as an analytical lens for interpreting unequal language representation rather than as a rejection of biomedical knowledge, international development partnerships, or English as a language of scholarly communication.

Furthermore, the study recognises the epistemic tension identified in postcolonial scholarship. The analysis is necessarily presented in English and engages with internationally established theoretical traditions because it seeks to participate in global scholarly conversations. This methodological choice reflects the practical realities of contemporary academic publishing rather than an endorsement of English linguistic dominance or the exclusion of indigenous knowledge systems. Consequently, the study distinguishes between the language used to communicate research within international academia and the language choices made by public institutions when providing health information to multilingual local communities. These are related but analytically distinct questions.

In addition, the study does not claim to speak on behalf of indigenous communities or to replace indigenous epistemologies with postcolonial critique. Rather, it examines how institutional signage represents or fails to represent the linguistic resources of those communities within official healthcare communication. The absence of Jukun (Wanu/Wapan), Kuteb, Tiv, Chamba, and Fulfulde from the documented signage corpus is therefore treated as an empirical characteristic of the institutional linguistic landscape rather than as evidence of the absence or inferiority of indigenous knowledge. Consequently, the study's argument for linguistic justice concerns equitable access to public health information and institutional recognition of local languages, not the rejection of English or international scholarly practice.

Finally, the study acknowledges that any research published in English inevitably operates within the structures of global academic knowledge production. Rather than denying this reality, the study adopts a reflexive position by recognising its own location within those structures while using them to document and critically examine patterns of

linguistic inequality in institutional healthcare communication. This reflexive stance does not resolve the broader asymmetries of global knowledge production; however, it enables the study to contribute empirical evidence from an underrepresented multilingual context to ongoing debates on language policy, linguistic landscapes, and linguistic justice. In this respect, the critique is directed not at English as a language, but at the institutional conditions under which English becomes the only language through which public health information acquires official visibility and legitimacy.

The clinical wayfinding signs — 'TRIAGE ROOM' and 'MALE TREATMENT' — are the first written language any patient encounters on entering the facility. A patient who cannot read 'triage', a term derived from French military medicine, naturalised in biomedical English but opaque outside it, cannot determine whether this is the appropriate room for their condition. The FUTH Wukari noticeboard simultaneously displays an Anaesthesiology duty roster, a Pharmacy call duty roster, a Transport duty roster, and a Fellowship of Christian Nurses Christmas Carol flyer; every item is in English. Drawing insight from Geosemiotics as articulated by (Scollon & Scollon, 2003), Linguistic Landscape Theory which provides the broader analytical context and Health Literacy Theory which in the other hand informs the discussion of communicative accessibility, this spatial arrangement reveals that English organises not only clinical communication but also the administrative, professional, and religious domains of institutional life. From a geosemiotical perspective, the placement and distribution of signs across these domains reveal how language is spatially embedded in everyday institutional practices, while the linguistic landscape documents the unequal visibility of languages within the healthcare environment. Health literacy considerations further underscore the communicative implications of this arrangement, as the exclusive reliance on English potentially constrains access to health information for patients whose primary linguistic resources lie outside the official language. Rather than invoking multiple overlapping theoretical explanations, the analysis prioritises the spatial organisation of signs as the primary evidence, with the broader linguistic landscape and health literacy perspectives serving complementary interpretive roles.

The patient feedback system like 'PLEASE DROP YOUR COMPLAINTS AND SUGGESTION IN THIS BOX' alongside a physical 'SUGGESTION BOX' represents an analytically underappreciated domain of health-facility language politics. The suggestion box is the primary mechanism through which a health facility invites patient voice and institutional accountability; yet the invitation is issued exclusively in English. A Jukun-speaking patient who cannot read English is excluded not merely from accessing health information in their language but from the institutional mechanism for holding the facility accountable. This constitutes civic exclusion: a form of language-based marginalisation that extends beyond health literacy to health citizenship. The pharmaceutical promotional wall — a dense array of materials for Dutasin, Levkast, Realflex, Fratonebetic, Inflanil, Cardicap, No-Ach, Duozol, and many other products — adds a commercial stratum of English saturation whose logic is entirely independent of state language policy.

The COVID-19 Safety Notice — 'WEAR FACE MASK / WASH YOUR HAND / KEEP SOCIAL DISTANCE / STAY SAFE' — is displayed alongside a Higher Ground College of Health flyer and a 'Supernatural Cure and Cleansing through Christ' card. This adjacency materialises, on a single window surface, the competing therapeutic epistemologies — biomedical, commercial-educational, and faith-based — that patients in Southern Taraba navigate, all conducted in English. The grammatical deviation 'WASH YOUR HAND' marks the sign as produced by a local actor for whom English is a second language; yet the ideological investment in English as the required language of public health instruction sustains English-only production even where the producer's English is imperfect.

State, Federal, and Development Accountability Signage

The First Referral Hospital Ibi board bears the federal coat of arms and the Taraba State Health Service Management Board logo, displaying the political sponsorship note 'SPONSOR: HON. AYUBA ZAKU' alongside the institutional name, a dimension of political credit-claiming conducted entirely in English. The North-East Development Commission (NEDC) sign for the General Out-Patient Department Ward at General Hospital Ibi reads 'NEDC... Development, Peace & Prosperity', addressing an implied reader who understands these values in their English-language formulation. The Petroleum Equalization Fund/Presidential Committee on

the North East Initiative plaque, documenting the Renovation of Science Laboratory at Government Secondary School Ibi follows the same semiotic grammar: PROJECT, BENEFICIARY, SPONSOR, CONTRACTOR, CONSULTANTS, all in English. The IMPACT Project 2025 plaque at Wapan Nghaku PHCC, bearing World Bank and TSPHCDA logos, reproduces this structure. As Mignolo (2000) argues, these plaques enact the colonial difference in semiotic form: the community can be named but cannot speak.

The Provincial Constancy of English Dominance: Takum, Donga, and Ussa LGAs

The extension of the corpus to Takum, Donga, and Ussa LGAs tests whether English monolingualism observed in the more urbanised Wukari and Ibi LGAs is reproduced in areas with lower formal education levels and greater proportions of primary-language-dominant speakers. The evidence confirms that it is. General Hospital Takum, serving a predominantly Kuteb-speaking population, displays institutional signage and FHI 360 HIV/AIDS awareness materials exclusively in English. In Donga LGA, the General Hospital facility name board and NPHCDA immunisation schedule poster are English throughout. In Ussa LGA, PHCC signage and community MNCH promotion materials are English-only. In no facility across these three LGAs does any signage appear in Kuteb, Tiv, or Chamba. This demonstrates that the graduated linguistic hierarchy is not a metropolitan phenomenon; it is a constant of the health-facility written environment across the full sociolinguistic breadth of Southern Taraba. The structural exclusion is most acute precisely where it is most consequential.

Clinical Protocols, Patient Feedback, and the Spectrum of Exclusion

The clinical protocol materials at Wapan Nghaku PHCC illustrate a spectrum of English exclusion. The Protocol for the Management of Diarrhoea, ARI, and Malaria incorporates clinical terminology like 'dehydration', 'stridor/wheeze', 'co-formulated', 'pre-referral treatment', presupposing clinical English literacy. The IMCI Case Management chart employs algorithmic flowchart logic that presupposes familiarity with algorithmic visual reasoning as an epistemic form. The NPHCDA Quality Assessment Score Card is addressed to health-system managers and donor auditors. Together, these documents produce not a single barrier but a spectrum of exclusions corresponding to Nutbeam's (2000) three health literacy levels: functional literacy is blocked by clinical protocol registers; interactive literacy

by governance document formats; and critical literacy by the constitution of the entire written health environment as an English-only epistemic domain. The patient feedback mechanism adds a fourth dimension: civic exclusion from institutional accountability.

The Graduated Hierarchy in Practice: Hausa Inclusion and Graduated Structural Exclusion

The Lafiyan Yara HIV awareness poster (aidsfonds, SFH, ViiV Healthcare) places 'LAFIYAN YARA' — Hausa for 'health of children/young people' — in large red capitals as the title, while the substantive message ('You can not rely on symptoms to know if you have HIV. The only way to know your HIV status is to get tested') is in English. This asymmetric bilingualism deploys the non-dominant language at the threshold of the message while the dominant language carries the message itself. For a Hausa-literate but non-English-literate reader, the poster communicates 'this is about child/youth health' but does not deliver the specific public health directive. The Hausa-version Clubfoot Treatment poster (Miraclefeet, NACHEF) represents the most thoroughgoing language adaptation in the corpus: 'DOMIN SAMUN JINYAN CUTAR NADEWAR TAFIN SAWU (Clubfoot) A KYAUTA' with labels 'Kamun Aiki/Bayan Aiki' and the call to action 'KU ZIYARCE MU'. Both bilingual items are produced by international NGOs — Hausa enters the health-signage landscape only when a global health organisation makes a programme-design decision to produce regional-language materials, chosen by the NGO, not by the community.

Graduated structural exclusion names this condition: an exclusion that operates across a gradient in which partial accommodation of a regional lingua franca functions as a legitimating gesture without addressing the exclusion of those for whom neither English nor Hausa is a first language. The risk is that the Hausa-language poster stands, in institutional self-assessment, as proof that health communication is 'reaching communities in their language' when it reaches Hausa-literate readers, a population that overlaps significantly but not completely with the community's primary-language speakers. The political economy of English dominance is co-produced by five categories of actor like state governments, federal agencies, international development organisations, global pharmaceutical corporations, and local private enterprises, each with its own institutional logic for defaulting to English.

Addressing this co-produced monolingualism requires interventions at each level: community-language standards for development programme communication, patient-facing pharmaceutical materials in community languages, and a shift in the professional language ideology of local health practitioners for whom English functions as the non-negotiable index of biomedical credibility (Bourdieu, 1991; Canagarajah, 1999).

CONCLUSION

This study has examined the linguistic landscape of health-facility signage across five Local Government Areas in Southern Taraba State, Nigeria, to understand how institutional language choices shape visibility, access, and inclusion within public health communication. Drawing on a corpus of one hundred and ten documented signage items, the study has demonstrated that the health-signage landscape is organised through a clear and recurring linguistic hierarchy. English occupies the highest position and functions as the principal language of institutional authority, biomedical legitimacy, and official communication across all sampled LGAs and across diverse communicative domains. Hausa appears only in a limited number of donor-supported public health campaigns and therefore operates as a restricted form of communicative accommodation rather than as evidence of institutional multilingualism. Indigenous languages, including Jukun, Kuteb, Tiv, Chamba, and Fulfulde, are entirely absent from the documented corpus and consequently remain excluded from the official written communicative resources of the sampled healthcare facilities.

Furthermore, the study has proposed the concept of graduated structural exclusion as a framework for explaining how linguistic inequality operates within multilingual healthcare environments. The findings demonstrate that institutional communication does not simply produce a binary distinction between inclusion and exclusion. Instead, different languages occupy different positions within a hierarchy of visibility, legitimacy, and communicative access. In other words, limited accommodation through regional lingua francas may create the appearance of multilingual access while leaving the exclusion of indigenous community languages fundamentally unchanged. The concept therefore provides a means of examining how linguistic marginalisation varies across communicative functions, institutional actors, and signage categories within the same institutional environment.

In addition, the study has drawn attention to several neglected domains of health-facility communication. Pharmaceutical promotional materials, patient feedback mechanisms, and institutional noticeboards emerged as important sites through which linguistic hierarchies are reproduced in everyday healthcare practice. These domains demonstrate that language policy is not enacted solely through official state regulations. Commercial actors, donor agencies, and routine administrative practices also participate in determining which languages acquire institutional visibility and which remain excluded.

The findings also have important implications for health communication and linguistic justice. The exclusion of indigenous languages from official written communication may reduce independent access to health information, constrain patient participation in institutional processes, and increase reliance on oral mediation and interpersonal translation. Oral interpretation undoubtedly plays an important role in multilingual healthcare settings and may facilitate communication in many clinical encounters. However, reliance on oral mediation as the primary mechanism of access introduces unevenness into the distribution of health information because access becomes dependent on the availability, competence, and willingness of intermediaries. Consequently, institutional language choices have implications not only for communication but also for equity, participation, and recognition within public healthcare systems.

At the same time, the study does not claim that indigenous languages are absent from healthcare communication more broadly. Rather, it demonstrates their absence from the official written linguistic landscape of the sampled facilities. This distinction is important because linguistic landscapes represent only one dimension of the wider semiotic ecology through which healthcare communication occurs. Interpersonal translation, oral mediation, and informal communicative practices remain significant areas for future investigation and may reveal alternative forms of linguistic negotiation that are not visible within institutional signage.

Finally, the study recognises its own location within the broader structures of global knowledge production. The critique advanced here is not directed at English as a language, nor does it reject biomedical knowledge or international health collaboration. Instead, the

study questions the institutional conditions under which English becomes the primary language through which public health information acquires official visibility and legitimacy in multilingual communities. Future research should therefore extend this analysis to other multilingual settings, integrate linguistic landscape analysis with ethnographic studies of spoken interaction and translation practices, and investigate how healthcare institutions and development organisations make decisions about language choice in public communication. Such work would provide a stronger empirical basis for developing more inclusive and linguistically equitable approaches to health communication policy in multilingual societies.

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