

SUPPLEMENTARY MATERIAL

A scoping review of public health challenges and systemic barriers facing unmet health and social care needs of older populations in Nigeria

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Supplementary Table 1. Risk of bias and quality assessment.

Authors (year)	Risk of bias score	Quality assessment score
Folorunsho (2025) ¹	Moderate	Moderate
Oyinlola (2024) ²	High	Low
Mobolaji (2024) ³	Low	High
Folorunsho <i>et al.</i> (2025) ⁴	Low	High
Kelechi Wisdom <i>et al.</i> (2025) ⁵	Moderate	Moderate
Spearman <i>et al.</i> (2021) ⁶	Low	High
Diaz <i>et al.</i> (2021) ⁷	High	Low
Nnadi and Ezech (2023) ⁸	Moderate	Moderate
Animasahun and Chapman (2017) ⁹	Moderate	Moderate
Arize <i>et al.</i> (2023) ¹⁰	Low	High
Osuh <i>et al.</i> (2023) ¹¹	Low	High
Eze <i>et al.</i> (2025) ¹²	Moderate	Moderate
Ogunyemi <i>et al.</i> (2023) ¹³	Low	High
Ogunyemi <i>et al.</i> (2024) ¹⁴	Low	High
Atchessi <i>et al.</i> (2018) ¹⁵	Low	High
Ibiyemi <i>et al.</i> (2020) ¹⁶	Moderate	Moderate
Okoh <i>et al.</i> (2024) ¹⁷	High	Low
Ramke <i>et al.</i> (2022) ¹⁸	Low	High
Patel <i>et al.</i> (2021) ¹⁹	Low	High
Chukwuorji <i>et al.</i> (2023) ²⁰	Moderate	Moderate
Fasiku <i>et al.</i> (2022) ²¹	Low	High
Olawole (2017) ²²	Low	High
Ojagbemi <i>et al.</i> (2024) ²³	Low	High
Kerwin <i>et al.</i> (2022) ²⁴	Moderate	Moderate
Birbeck <i>et al.</i> (2015) ²⁵	Low	High
Igwe <i>et al.</i> (2026) ²⁶	Moderate	Moderate
Ayub <i>et al.</i> (2022) ²⁸	Low	High
Oyebamiji <i>et al.</i> (2025) ²⁹	Low	High
Erhabor <i>et al.</i> (2021) ³⁰	Moderate	Moderate
Folorunsho <i>et al.</i> (2025) ³¹	Low	High

Oyinlola (2022) ³²	Low	High
Adedeji <i>et al.</i> (2017) ³³	Low	High
Diameta <i>et al.</i> (2018) ³⁴	Low	High
Oyebade and Oyinlola (2024) ³⁵	Low	High
Odusola <i>et al.</i> (2016) ³⁶	Low	High
Saka and Osineye (2024) ³⁷	Moderate	Moderate
Akande-Sholabi and Fafemi (2022) ³⁸	Low	High
Akande-Sholabi <i>et al.</i> (2023) ³⁹	Low	High
Volpe <i>et al.</i> (2020) ⁴⁰	Low	High
Adeniyi <i>et al.</i> (2012) ⁴²	Low	High
Adedini <i>et al.</i> (2014) ⁴³	Moderate	Moderate
Uzor-Isiugo (2025) ⁴⁴	Low	High
Egbumike <i>et al.</i> (2025) ⁴⁵	Low	High

Supplementary Table 2. Summary of the included studies.

Author (year)	Study type	Sample/setting	Objectives	Key barriers	Key findings	Conclusion
Folorunsho (2025) ¹	Review	National	To examine the implications of poverty on healthcare access and affordability for the aging population in Nigeria and suggest policy recommendations	Poverty, lack of affordable healthcare, policy deficiencies, inadequate infrastructure	Poverty significantly limits access to healthcare, leading to high unmet needs among older adults	Urgent policy reforms are needed to improve access and affordability for healthy aging in Nigeria
Oyinlola (2024) ²	Commentary	Nigeria	To call for a comprehensive national strategy to address dementia care challenges in Nigeria	Policy absence, stigma, resource limitations, family burden	Lack of strategy exacerbates care gaps for dementia patients	A national dementia plan is urgently needed to improve care and support
Mobolaji (2024) ³	Empirical	Southwest Nigeria	To investigate unmet needs for ADLs support and effects of family structures	Household changes, poverty, support gaps	Unmet needs higher in certain structures	Family-inclusive interventions needed
Folorunsho <i>et al.</i> (2025) ⁴	Qualitative	Nigeria	To explore barriers to dental utilization among older adults in Nigeria	Affordability, accessibility, fear, lack of awareness	Multiple barriers result in poor dental health outcomes	Community-based education and services can mitigate these barriers
Kelechi Wisdom <i>et al.</i> (2025) ⁵	Review	Nigeria	To evaluate healthcare capacity for managing neurodegenerative diseases in Nigeria and identify opportunities	Limited specialized care, training deficits, diagnostic tools shortage, funding	Capacity gaps hinder effective management; opportunities exist in training and partnerships	Building capacity through education and infrastructure is essential for neurodegenerative care
Spearman <i>et al.</i> (2021) ⁶	Review	SSA, Nigeria	To review epidemiology, risk factors, and management of NAFLD in sub-Saharan Africa	Diagnostic challenges, lifestyle factors, healthcare access, awareness	Rising prevalence due to urbanization; management is limited by resources	Integrated approaches to prevention and treatment are needed in SSA
Diaz <i>et al.</i> (2021) ⁷	Commentary	Global, including Nigeria	To advocate for standardized age-disaggregated health data to better address health needs across age groups	Lack of data standardization, insufficient age-specific reporting, resource limitations in LMICs	Age-disaggregated data is crucial for identifying and addressing health disparities in older populations	Global health systems must prioritize collecting and using age-specific data for equitable care
Nnadi and Ezeh (2023) ⁸	Empirical	Nigeria	To examine psycho-social experiences and healthcare delivery for older adults	Stigma, resource scarcity, family dynamics	Experiences highlight delivery gaps	Improved delivery models for psycho-social care
Animasahun and Chapman (2017) ⁹	Review	Nigeria	To review psychosocial health challenges of the elderly in Nigeria	Isolation, stigma, service deficits	Multiple challenges impact well-being	Holistic approaches to psychosocial care needed
Arize <i>et al.</i> (2023) ¹⁰	Qualitative	Southeast Nigeria	To gather stakeholders' perspectives on unmet needs and priorities of urban poor	Poverty, access, policy neglect	Health priorities often unmet due to systemic issues	Inclusive policies for urban poor essential

Osuh <i>et al.</i> (2023) ¹¹	Qualitative	Urban Nigeria	To explore residents' perceptions, practices, and care-seeking experiences regarding oral health in an urban slum in Nigeria	Financial constraints, low awareness, poor infrastructure, cultural beliefs	Residents have poor oral health practices and face significant barriers in seeking care	Interventions should focus on education and improving access to oral health services in slums
Eze <i>et al.</i> (2025) ¹²	Review	Nigeria	To understand unmet healthcare needs in Nigeria and implications for UHC	Coverage gaps, financial, access issues	High unmet needs hinder UHC progress	Reforms toward UHC must address these needs
Ogunyemi <i>et al.</i> (2023) ¹³	Empirical	Southwest Nigeria	To evaluate provider and facility readiness for age-friendly services	Training deficits, infrastructure	Low readiness affects service quality	Capacity building for readiness
Ogunyemi <i>et al.</i> (2024) ¹⁴	Qualitative	Southwest Nigeria	To identify barriers and facilitators to age-friendly health services in primary care	Infrastructure deficits, staff training, policy support lacking	Significant barriers limit service delivery	Implementing facilitators can enhance age-friendly care
Atchessi <i>et al.</i> (2018) ¹⁵	Survey	Nigeria	To examine factors associated with healthcare-seeking behaviour among older people in Nigeria	Financial, geographical, cultural, health system barriers	Socioeconomic factors strongly influence seeking care	Policies should address these factors to improve utilization
Ibiyemi <i>et al.</i> (2020) ¹⁶	Review	Nigeria	To review multimorbidity and access challenges for aging with HIV in Nigeria	Stigma, integrated care lacks, resources	Complex needs unmet	Integrated approaches for HIV in aging
Okoh <i>et al.</i> (2024) ¹⁷	Protocol	SSA	To build consensus on research priorities for aging populations in SSA using e-Delphi	Diverse stakeholder views, logistical challenges, resource constraints	Protocol outlines method for identifying priorities	Consensus-building will guide future aging research in SSA
Ramke <i>et al.</i> (2022) ¹⁸	Delphi	Global, SSA	To prioritize global challenges in eye health through expert consensus	Resource scarcity, workforce shortages, access in rural areas, funding issues	Key priorities include equity in access and integration of eye health into primary care	Addressing these priorities can reduce vision impairment in aging populations
Patel <i>et al.</i> (2021) ¹⁹	Review	Global	To highlight the importance of oral health in promoting healthy aging and identify strategies for improvement	Aging-related oral issues, access to dental care, integration with general health services	Poor oral health contributes to overall morbidity in older adults; integrated care is essential	Policies should integrate oral health into aging care frameworks for better outcomes
Chukwuorji <i>et al.</i> (2023) ²⁰	Scoping Review	Africa, Nigeria	To map the state of Gero-psychology research in Africa and identify gaps	Limited research funding, cultural stigma, workforce shortages, data scarcity	Gero-psychology is underdeveloped in Africa with few studies	Increased research and training in Gero-psychology are required for the continent
Fasiku <i>et al.</i> (2022) ²¹	Empirical	Rural/Urban Nigeria	To assess unmet needs for ADLs assistance among elderly in rural/urban Nigeria	Family structure changes, poverty, service availability	Higher unmet needs in rural areas	Policy implications for targeted support

Olawole (2017) ²²	Empirical	Osun State, Nigeria	To assess unmet travel needs and quality of life of rural elderly	Transportation barriers, isolation	Unmet needs lower QoL	Better mobility options for rural elderly
Ojagbemi <i>et al.</i> (2024) ²³	Qualitative	Nigeria	To explore lay providers' experiences in caring for older people with depression in Nigeria	Stigma, resource scarcity, training deficits, workload	Providers face challenges but value community-based care	Strengthening lay provider roles can improve depression care
Kerwin <i>et al.</i> (2022) ²⁴	Perspectives	Global, Nigeria	To share global perspectives on Alzheimer's diagnosis and management	Diagnostic access, cultural differences, resource inequality	Variations in approaches highlight global disparities	Collaborative efforts are needed for equitable AD care
Birbeck <i>et al.</i> (2015) ²⁵	Review	SSA, Nigeria	To assess nervous system disorders across life courses in resource-limited settings	Diagnostic limitations, treatment access, stigma, healthcare infrastructure	High burden of neurological disorders with inadequate resources in LMICs	Enhanced training and resource allocation are vital for management in these settings
Igwe <i>et al.</i> (2026) ²⁶	Review	SSA	To discuss medical gases and oxygen therapy for reducing COPD burden in aging SSA populations	Supply chain issues, cost, infrastructure, trained personnel shortages	Oxygen therapy can alleviate COPD but faces implementation barriers	Scaling up oxygen access is critical for aging populations in SSA
Ayub <i>et al.</i> (2022) ²⁸	Empirical	Nigeria	To determine health challenges and services for older people	Access, affordability, quality issues	Challenges linked to systemic determinants	Enhanced services to address determinants
Oyebamiji <i>et al.</i> (2025) ²⁹	Review	Nigeria	To examine social determinants shaping elderly mental health in Nigeria	Inequalities, structural barriers, stigma	Determinants exacerbate mental health issues	Addressing determinants key to improvement
Erhabor <i>et al.</i> (2021) ³⁰	Review	Nigeria	To review status and challenges of adult pneumococcal vaccination in Nigeria	Awareness, access, policy implementation	Low uptake due to barriers	Strategies to increase vaccination coverage
Folorunsho <i>et al.</i> (2025) ³¹	Empirical	Nigeria	To identify barriers and facilitators to dental care access and utilization among older adults in Nigeria	Cost, transportation, lack of geriatric dental services, awareness gaps	Significant barriers lead to low utilization; facilitators include community programs	Targeted interventions are required to enhance dental care access for the elderly
Oyinlola (2022) ³²	Cohort	LMICs, incl. Nigeria	To examine social network typologies and mortality risk in older people in LMICs	Isolation, weak networks, cultural factors	Poor networks increase mortality risk	Strengthening social networks can reduce risks
Adedeji <i>et al.</i> (2017) ³³	Empirical	Nigeria	To assess unmet health information needs of elderly in IDP camps	Access to info, literacy, infrastructure	High unmet needs affect health management	Tailored information strategies required
Diameta <i>et al.</i> (2018) ³⁴	Qualitative	Nigeria	To explore burdens experienced by caregivers of older adults with hip fractures	Emotional, financial, physical strains, support lacks	High burden affects caregiver well-being	Support systems for caregivers are essential

Oyebade and Oyinlola (2024) ³⁵	Qualitative	Nigeria	To explore medical social workers' experiences in transitioning older adults to nursing homes	Cultural resistance, facility shortages, emotional challenges	Transition is difficult but achievable with support	Enhanced support systems for transitions required
Odusola <i>et al.</i> (2016) ³⁶	Qualitative	Nigeria	To identify enablers and barriers to high-quality hypertension care in rural Nigeria	Staff motivation, resource shortages, patient adherence	Barriers include logistics; enablers are community ties	Addressing barriers can improve hypertension management
Saka and Osineye (2024) ³⁷	Survey	Nigeria	To assess considerations, barriers, and enablers of deprescribing among healthcare professionals	Professional hesitation, patient preferences, guidelines absence	Mixed perceptions with barriers dominating	Promoting enablers through training will facilitate deprescribing
Akande-Sholabi and Fafemi (2022) ³⁸	Survey	Nigeria	To assess knowledge, practice, and barriers to inappropriate medication use in the elderly	Knowledge gaps, confidence issues, systemic barriers	Poor knowledge leads to high PIM use	Education interventions are necessary to reduce PIMs
Akande-Sholabi <i>et al.</i> (2023) ³⁹	Survey	Nigeria	To evaluate physicians' knowledge of deprescribing tools and factors affecting the process	Tool awareness low, time and patient factors	Limited use of tools hinders deprescribing	Increasing awareness and support can improve practices
Volpe <i>et al.</i> (2020) ⁴⁰	Multicentre	Global, Nigeria	To compare pathways to care for dementia across countries	Delay in diagnosis, stigma, service availability	Pathways vary, with delays common in LMICs	Improving pathways requires integrated services
Adeniyi <i>et al.</i> (2012) ⁴²	Comparative	Nigeria	To compare influences on low physical activity in patients with chronic conditions	Self-efficacy low, support deficits, perceived barriers	Barriers hinder activity in chronic patients	Interventions targeting efficacy and support needed
Adedini <i>et al.</i> (2014) ⁴³	Analysis	Nigeria	To identify barriers to healthcare access and implications for survival (contextual for elderly)	Socioeconomic, geographical, cultural barriers	Barriers contribute to poor health outcomes	Reducing barriers essential for better survival rates
Uzor-Isiugo (2025) ⁴⁴	Empirical	Port Harcourt, Nigeria	To evaluate geriatric healthcare availability, accessibility, and gaps in Port Harcourt	Infrastructure, personnel shortages, cost	Significant gaps in geriatric services	Investments needed to bridge gaps
Egbumike <i>et al.</i> (2025) ⁴⁵	Qualitative	Nigeria	To explore unmet social needs of older adults post-rehabilitation in Nigeria	Mobility limitations, support lacks, access	Unmet needs persist after discharge	Integrated post-rehab support essential

ADLs, activities of daily living; SSA, Sub-Saharan Africa; NAFLD, non-alcoholic fatty liver disease; LMICs, low- and middle-income countries; UHC, universal health coverage; HIV, human immunodeficiency virus; COPD, chronic obstructive pulmonary disease; IDP, internally displaced person; PIM, potentially inappropriate medication.