

Quantifying The Pan-africanAlzheimer’s Disease Crisis: System Deficits & Task-shifted Diagnostics

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Ishaq Oyeshina Sanusi¹, Tejiri Great Napoleon, Bachelor of Medicine and Bachelor of Surgery², Deborah Akinride¹, Emmanuela Ojoagefu Egwu³, Ogheneakpobor Ogbodu⁴, Emmanuel Kodizuru Chukwuemeka¹, Ojo Israel Ifeoluwa¹, Elete Shola Tabitha⁵, Eleyinmi Oluwafunmilayo Dorcas⁶, Ogunmekan Precious Anuoluwapo⁷, Ucheobi Nonso Christopher⁸, Olaniran Oluwatosin Emmanuel¹, Ogban Nsenanzama Eko⁹, Chioma Nnedinma Duru¹⁰, Ehiwogwu Victoria Ifeoma¹¹.
1College of Medicine, University Of Ibadan, Ibadan, Nigeria, 2Federal Medical Centre, Abeoukuta, Ogun State, Abeoukuta, Nigeria, 3Department of Medicine and Surgery, Bowen University Iwo, Osun, Nigeria, Iwo, Nigeria, 4Delta State University Teaching Hospital, Oghara, Oghara, Nigeria, 5Grodno State Medical University, Belarus., Grodno, Belarus, 6Sofia University 'St. Kliment Ohridski faculty of Medicine, Sofia, Bulgaria., Sofia, Bulgaria, 7Afe Babalola University, Ekiti state, Ekiti, Nigeria, 8Chukwuemeka Odumegwu Ojukwu University Teaching Hospital, Awka, Anambra state., Awka, Nigeria, 9University of Calabar Teaching Hospital., Calabar, Nigeria, 10Gregory University Uturu, Abia State, Abia, Nigeria, 11Delta state University Teaching Hospital, Oghara, Oghara, Nigeria.

Specialist-dependent AD care is currently unviable in Africa despite millions of Africans estimated to live with the condition. This calls for the implementation of a pan-African tailored diagnostic approach which can be through the implementation of culturally neutral and decentralized diagnostics care models acting by task-shifting using the WHO mhGAP framework.

INTRODUCTION	METHODS	RESULTS	CONCLUSIONS	REFERENCES
Despite Africa's rapidly ageing demographic, Alzheimer’s disease (AD) epidemiology and structural care deficits remain poorly characterized, severely limiting global biomarker validation and clinical trial generalizability. This study presents a pooled synthesis, triangulating historically fragmented multicountry prevalence data with recent specialist workforce registry updates, to urgently quantify the continent’s escalating diagnostic and care crisis.	We conducted a systematic epidemiological and health-systems synthesis mapping pan-African diagnostic infrastructure and specialist density. Baseline prevalence trajectories were anchored to George-Carey et al.’s systematic analysis and projected forward. Geographic disparities were modelled using multisite data from Guerchet et al. across Central and West Africa. Specialist workforce constraints were quantified utilizing World Congress of Neurology registry metrics, while caregiving economic impact assessments were derived from Alzheimer’s Disease International parameters.	Harmonized analyses indicate 2.76 million Africans (2.4% prevalence) currently live with AD, with the sub-Saharan burden (2.1 million) projected to quadruple to 8 million by 2050. Pronounced geographic inequities persist; based on seminal regional cohorts, urban AD prevalence (6.0-7.6%) significantly exceeds rural estimates (2.0-3.7%), largely reflecting disparities in diagnostic accessibility. Workforce mapping exposes a critical bottleneck: Africa averages an abysmal 0.12 neurologists per 100,000 population, compared to 7.12 in high-income nations. Furthermore, hospital-based research in West Africa reveals vascular dementia accounts for 20-30% of cognitive presentations, which remain phenotypically inseparable from AD without accessible fluid or imaging biomarkers. Consequently, informal family caregivers absorb over 70% of the societal dementia economic burden.	Triangulating foundational epidemiological estimates with updated workforce mapping demonstrates that centralized, specialist-dependent AD care is structurally unviable in Africa. Addressing this public health crisis demands the rapid implementation of culturally agnostic diagnostics and decentralized care models utilizing task-shifting via the WHO mhGAP framework. For global trial readiness, establishing pan-African diagnostic infrastructure is a critical, immediate mandate.	•George-Carey R, Adeloye D, Chan KY, Paul A, Kolčić I, Campbell H, et al. An estimate of the prevalence of dementia in Africa: A systematic analysis. J Glob Health [Internet]. 2012 Dec [cited 2026 Feb 10];2. Available from: http://www.jogh.org/documents/issue201202/9-Article%20George-Carey.pdf. •Guerchet M, Mouanga AM, M’belesso P, Tabo A, Bandzouzi B, Paraíso MN, et al. Factors Associated with Dementia Among Elderly People Living in Two Cities in Central Africa: The EDAC Multicenter Study. J Alzheimers Dis. 2012 Mar 2;29:15–24. •Charway-Felli. President of African Academy of Neurology Calls for Urgent, Unified Action to Address Lack of Trained Neurologists Throughout. [Internet]. 2023. Available from: https://wfneurology.org/activities/news-events/archived-news/2023-10-19-wcn-2

CONTACT

Is'haq ✨
WhatsApp contact



ALZHEIMER'S ASSOCIATION

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