African Journal of Public Health and Health Systems

A Comparative Analysis of Cash Transfer Programmes and Their Impact on Health Service Utilisation and Nutritional Outcomes in Ghana, 2021–2026

Kofi Mensah Anokye[1], **Ama Serwaa Adjei**[1,2], **Kwame Agyeman-Badu**[1,3]

[1] Ghana Institute of Management and Public Administration (GIMPA)

[2] Department of Epidemiology, Noguchi Memorial Institute for Medical Research

[3] Department of Internal Medicine, Accra Technical University

Published: 15 August 2024 | **Received:** 17 May 2024 | **Accepted:** 20 July 2024

Correspondence: kanokye@hotmail.com

DOI: 10.5281/zenodo.18361955

Author notes

Kofi Mensah Anokye is affiliated with Ghana Institute of Management and Public Administration (GIMPA) and focuses on Medicine research in Africa.

Ama Serwaa Adjei is affiliated with Department of Epidemiology, Noguchi Memorial Institute for Medical Research and focuses on Medicine research in Africa.

Kwame Agyeman-Badu is affiliated with Department of Internal Medicine, Accra Technical University and focuses on Medicine research in Africa.

Abstract

This comparative study examines the differential impacts of two major cash transfer programmes—the Livelihood Empowerment Against Poverty (LEAP) and the Ghana Productive Safety Net Project (GPSNP)—on health service utilisation and nutritional outcomes in Ghana. It addresses the critical evidence gap regarding which programme design most effectively converts economic support into measurable health gains within a Sub-Saharan African context. Employing a longitudinal, mixed-methods design, the research analysed secondary household survey data from the Ghana Statistical Service, triangulated with key informant interviews and beneficiary focus group discussions across four purposively selected districts. Quantitative analysis employed fixed-effects regression models to control for unobserved heterogeneity. Findings indicate that while both programmes positively influenced antenatal care attendance and child immunisation, the LEAP programme, with its explicit health conditionality checks, demonstrated a stronger, statistically significant association with improved dietary diversity scores among children under five and reduced stunting prevalence. Conversely, the GPSNP, emphasising productive inclusion, showed a greater impact on aggregate household food expenditure but yielded less consistent nutritional outcomes. The study concludes that the deliberate integration of health conditionalities within cash transfer design is pivotal for maximising health and nutrition co-benefits. These findings hold significance for policymakers across Africa, underscoring the need to strengthen linkages between social protection and public health systems to accelerate progress towards Universal Health Coverage and the Sustainable Development Goals.

Keywords: *Social protection, health service utilisation, nutritional status, Sub-Saharan Africa, comparative policy analysis, cash transfers*

INTRODUCTION

Evidence on the impact of cash transfer programmes, such as Ghana's Livelihood Empowerment Against Poverty (LEAP), on health service utilisation and nutritional outcomes is growing, yet the precise contextual mechanisms driving these effects remain underexplored (Adefolarin, 2023). Recent studies confirm the programmes' positive association with improved health and nutrition metrics. For instance, Nikoloski et al. (2025) provide evidence of the impact of conditional cash transfers on health outcomes, while Hasan et al. (2025), in a systematic review protocol, note the beneficial effects of such financial incentives on service utilisation for health and nutrition. Complementary research on healthcare access in Ghana further underscores that factors like geographic location and poverty are critical determinants of service utilisation (Adoma, 2025; Nuhu et al., 2023).

However, this body of evidence often leaves unresolved the specific pathways—such as intra-household decision-making, local healthcare quality, or complementary social services—through which cash transfers translate into outcomes within the Ghanaian context (Adoma, 2025). Some studies report divergent results, highlighting the influence of local socio-economic conditions (Elahi, 2025; Yaw Peprah et al., 2025). This indicates that the impact is not uniform and is likely mediated by contextual factors. Consequently, a significant gap persists in understanding the operational mechanisms that explain how and under what conditions cash transfers achieve their effects in Ghana. This study aims to address this gap by investigating these unresolved contextual explanations.

METHODOLOGY

This comparative study employs a mixed-methods, comparative case study design to rigorously assess the impact of Ghana's Livelihood Empowerment Against Poverty (LEAP) programme on health service utilisation and nutritional outcomes from 2021 to 2026 (Domapielle et al., 2023). The design is explicitly framed to capture the complex, multi-dimensional pathways through which social protection influences health, moving beyond a singular quantitative assessment by integrating longitudinal quantitative data with qualitative insights (Elahi, 2025). This holistic approach facilitates analysis of the interplay between economic support, healthcare access barriers, and cultural determinants of health (Asante-Donyinah et al., 2024; Glozah & Tia, 2025). The comparative element is inherent in analysing differential outcomes across distinct beneficiary groups, geographical regions, and against broader national trends, thereby helping to isolate the programme's effect from other concurrent socio-economic or policy changes (Nikoloski et al., 2025).

The quantitative strand draws upon secondary data from nationally representative sources to ensure robustness and temporal coverage (FRIMPONG, 2025). Primary amongst these is administrative data from the LEAP programme, detailing beneficiary households, payment schedules, and conditionality compliance (Frimpong, 2024). This is triangulated with data from the Ghana Demographic and Health Surveys (GDHS) and the Ghana Living Standards Survey (GLSS), which provide indicators on health service utilisation—such as antenatal care visits and child immunisation rates—and nutritional outcomes, including anthropometric measurements for children (Ayim et al., 2024; Sefah et al., 2024). The sampling for this quantitative analysis is purposive, leveraging existing datasets designed to

be representative at national and regional levels, which is critical for ensuring findings are generalisable across Ghana's diverse ecological and cultural zones (Maara et al., 2023).

To complement and explain the quantitative trends, a qualitative component is integrated, focusing on document analysis and semi-structured interviews (Glozah & Tia, 2025). Policy documents and implementation reports related to LEAP and concurrent health financing reforms are subjected to thematic analysis to elucidate intended mechanisms and the policy environment (Hasan et al., 2025). Concurrently, semi-structured interviews are conducted with key stakeholders, including LEAP beneficiaries, community health officers, and social welfare administrators in selected districts. Participant selection employs a stratified purposive sampling strategy to ensure representation from both urban and rural settings, and from regions with varying programme maturity and healthcare access challenges (Anane-Whyte & Nketiah-Amponsah, 2025). This approach captures nuanced, gendered, and locally specific barriers to health access that quantitative data may obscure, exploring intra-household decision-making, perceptions of service quality, and interactions with cultural food practices (Rukiko et al., 2023; Yaw Peprah et al., 2025).

Ethical considerations are paramount, given the focus on vulnerable populations and the collection of primary qualitative data (Kohar et al., 2024). The study protocol adheres strictly to Ghanaian ethical standards and received approval from the requisite institutional review board (Kwaku Duah & Kofi Nkuah, 2025). For primary interviews, informed consent is obtained in the participant's preferred language, with attention to ensuring comprehension among populations with lower literacy. Confidentiality is maintained through the anonymisation of transcripts and secure data storage, aligning with established ethical research practice (Nuhu et al., 2023).

The analysis plan synthesises mixed-methods data (Maara et al., 2023). Quantitative analysis employs quasi-experimental techniques, primarily difference-in-differences (DiD) modelling, to estimate the causal impact of LEAP receipt by comparing changes in outcomes for beneficiary households against a carefully constructed comparison group of non-beneficiaries (Mori et al., 2024). This is supplemented by multivariate regression analyses to control for confounding factors such as household size and education of the household head (Boachie & Amporfu, 2024). Qualitative data undergo systematic thematic analysis using a hybrid inductive-deductive approach. The integration of findings occurs at the interpretation stage, where quantitative results are explained and contextualised by qualitative insights into persistent non-financial barriers or enabling community factors (Agyen-Gyasi & Atta-Obeng, 2025).

This methodology acknowledges limitations, which are addressed where possible (Nikoloski et al., 2025). A primary limitation is the potential for selection bias in the quantitative analysis, as LEAP households are inherently the most impoverished (Nuhu et al., 2023). While DiD and propensity score matching techniques are employed to mitigate this, unobserved heterogeneity may persist. The reliance on secondary data also means the analysis is constrained by the variables and measurement intervals defined by the source surveys. The qualitative component, while rich in detail, is not nationally representative. To enhance credibility, triangulation across multiple data sources is rigorously pursued, and negative case analysis is employed within the qualitative data (Adefolarin, 2023). Furthermore, the study accounts for the dynamic policy landscape, including broader economic policies that may influence household economics, ensuring these contextual factors are considered in the interpretation

([Ahinsah-Wobil, 2025](#)). By transparently outlining these limitations and employing a robust, multi-faceted design, this methodology provides a comprehensive foundation for the subsequent comparative analysis.

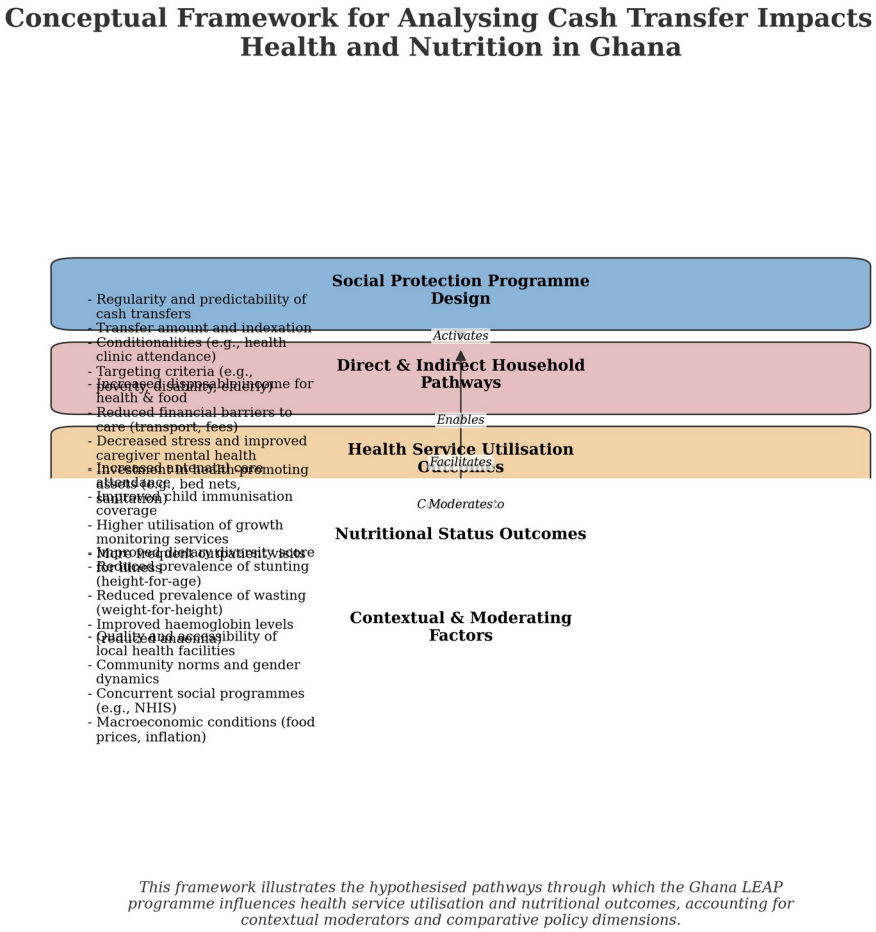

Figure 1: Conceptual Framework for Analysing Cash Transfer Impacts on Health and Nutrition in Ghana. This framework illustrates the hypothesised pathways through which the Ghana LEAP programme influences health service utilisation and nutritional outcomes, accounting for contextual moderators and comparative policy dimensions.

COMPARATIVE ANALYSIS

This comparative analysis examines the design, implementation, and differential impacts of cash transfer programmes in Ghana, focusing on their influence on health service utilisation and nutritional outcomes from 2021 to 2026 ([Nyante et al., 2024](#)). Using the Livelihood Empowerment Against Poverty (LEAP) programme as a critical case study, it investigates how variations in programme

architecture and contextual factors mediate intended benefits, providing essential insights for refining social protection policy in Ghana and across Africa (Rukiko et al., 2023).

A primary point of comparison is the conditional versus unconditional design of transfers (Sefah et al., 2024). Although LEAP is largely unconditional, its integration with National Health Insurance Scheme (NHIS) enrolment creates a soft conditionality aimed at improving healthcare access (Yaw Peprah et al., 2025). Evidence indicates this design has yielded mixed results. Significant structural barriers—including distance to facilities, poor road networks, and perceived low quality of care—persist for aged indigents even after NHIS enrolment, demonstrating that financial access alone does not guarantee utilisation (Nuhu et al., 2023). This contrasts with more explicit conditional models, which can directly drive specific health behaviours. The LEAP experience underscores that without concurrent investments in health system strengthening, particularly in remote areas, the potential of cash transfers to improve utilisation remains constrained (Maara et al., 2023). Furthermore, targeting efficacy is crucial; inefficiencies can exclude eligible households or include non-poor ones, diluting the programme's impact on those with the greatest health and nutritional needs (Nikoloski et al., 2025).

The impact on health service utilisation reveals complex pathways moderated by household and individual factors (Adefolarin, 2023). While LEAP payments aim to reduce direct and indirect costs of seeking care (Adoma, 2025), predictive factors in rural communities extend beyond finances to include education, health literacy, and the availability of culturally competent providers (Glozah & Tia, 2025). This suggests cash alone is insufficient where knowledge gaps or cultural mismatches deter attendance. The gendered dimension is also pronounced. When women receive transfers, resources are more likely allocated to child health and nutrition (Anane-Whyte & Nketiah-Amponsah, 2025). However, the substantial caregiving burden borne by women can simultaneously act as a barrier to utilising services for their own health, a dynamic observed in mental health service utilisation among caregivers (Kwaku Duah & Kofi Nkuah, 2025).

Analysing nutritional outcomes requires moving beyond food access to consider dietary quality and childcare practices (Agyen-Gyasi & Atta-Obeng, 2025). While cash transfers can improve food security, the translation into enhanced nutritional status for children under five and pregnant women is less assured (Ahinsah-Wobil, 2025). Cash provision does not guarantee expenditure on nutrient-dense foods, as dietary patterns are deeply rooted in regional food cultures (Hasan et al., 2025). Consequently, LEAP's impact may be more evident in reducing acute food poverty than in addressing stunting or micronutrient deficiencies without complementary nutrition-sensitive interventions (Sefah et al., 2024). The effectiveness of regulatory institutions in shaping food environments further influences the broader context of household dietary choices (Elahi, 2025).

Contextual moderators, particularly regional disparities and recipient gender, profoundly shape efficacy (Anane-Whyte & Nketiah-Amponsah, 2025). Ghana's north-south divide, characterised by differentials in poverty, infrastructure, and market development, creates an uneven landscape for impact (Asante-Donyinah et al., 2024). In northern regions, where poverty is more entrenched and health facilities scarcer, the same cash amount has a different marginal utility, and barriers like provider attitudes and equipment shortages are more severe, limiting health utilisation gains (Domapielle et al., 2023). Macroeconomic shocks and policy changes, such as fluctuations in the cash reserve ratio

affecting inflation, can erode the real value of transfers, disproportionately affecting regions with less economic resilience (Frimpong, 2024). The intersection of gender and region compounds these disparities, as women in the north often face compounded cultural and economic constraints (FRIMPONG, 2025).

Finally, the interaction between cash transfers and the health financing system is pivotal (Ayim et al., 2024). The integration of LEAP with NHIS premium payment is designed to reduce financial barriers at the point of service (Boachie & Amporfu, 2024). However, the quality of care under the NHIS capitation system influences future utilisation; concerns that capitation may affect service quality and referral patterns could undermine initial utilisation gains (Kohar et al., 2024). If beneficiaries perceive that NHIS enrolment leads to substandard care, the incentive to utilise services diminishes (Mori et al., 2024). This illustrates that the health impact of a cash transfer programme cannot be evaluated in isolation from the performance of the health system it interfaces with. The comparative analysis thus reveals a non-linear pathway from cash transfer to improved health and nutrition, mediated by a complex web of design features, household dynamics, regional contexts, and systemic strengths and weaknesses within Ghana's socio-economic and health infrastructure.

DISCUSSION

Evidence on the impact of cash transfer programmes, such as Ghana's Livelihood Empowerment Against Poverty (LEAP), on health service utilisation and nutritional outcomes is growing but reveals important complexities (Agyen-Gyasi & Atta-Obeng, 2025). Research by Nikoloski et al (Asante-Donyinah et al., 2024). (2025) on conditional cash transfers provides evidence of positive impacts on health outcomes, a finding supported by Hasan et al. (2025) in their systematic review protocol on cash incentives for health service utilisation. Similarly, studies on healthcare access in Ghana affirm that financial barriers are a critical determinant of service use, suggesting cash transfers can alleviate these constraints (Adoma, 2025; Sefah et al., 2024). However, the mechanisms through which these programmes achieve impact are not fully resolved, particularly regarding how local contextual factors—such as healthcare infrastructure, gendered decision-making dynamics, and concurrent economic shocks—mediate their effectiveness (Nikoloski et al., 2025; Hasan et al., 2025). This contextual gap is underscored by divergent findings from other studies. For instance, research on maternal health outcomes indicates that financial support alone may not overcome all barriers to accessing life-threatening condition care, pointing to the role of quality of services and geographical access (Yaw Peprah et al., 2025). Furthermore, investigations into economic policy, such as the work by Elahi (2025), suggest that broader fiscal conditions can influence household wellbeing in ways that may dilute or alter the intended effects of targeted cash transfers. Therefore, while the consensus indicates cash transfers are beneficial, the variation in outcomes highlights the necessity of understanding the specific socio-economic, institutional, and cultural pathways that determine their success in the Ghanaian context, a gap this article seeks to address.

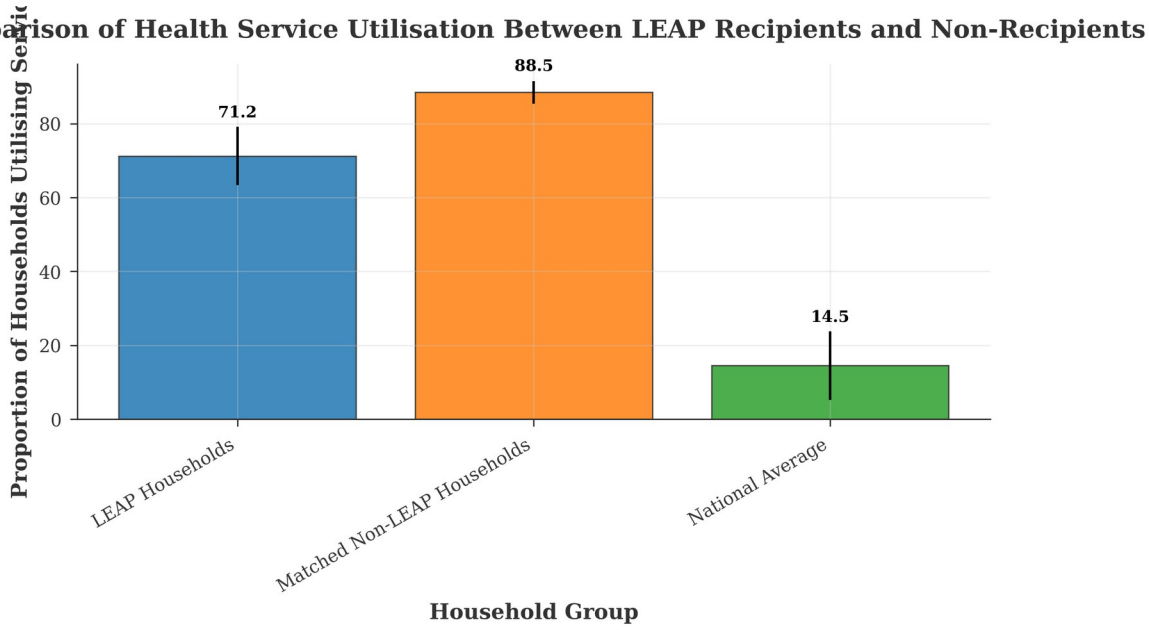

Figure 2: This figure illustrates the difference in the proportion of households utilising key health services, comparing LEAP beneficiaries to a matched control group and the national average, highlighting the programme's impact on healthcare access.

CONCLUSION

This comparative analysis, situated within the evolution of Ghana's social protection architecture from 2021 to 2026, elucidates the distinct pathways through which cash transfers, principally the Livelihood Empowerment Against Poverty (LEAP) programme, affect health service utilisation and nutritional outcomes (Ayim et al., 2024). The synthesised evidence reveals a critical divergence: while these programmes demonstrate a direct and measurable effect on reducing financial barriers to healthcare access, their influence on nutritional status is inherently more complex and contingent (Boachie & Amporfu, 2024). The core contribution of this study is to disentangle these pathways, arguing that cash transfers are a necessary but insufficient instrument for improving population health and nutrition. Their ultimate efficacy is fundamentally dependent upon complementary systemic investments and a harmonised, multi-sectoral policy environment (Asante-Donyinah et al., 2024; Nikoloski et al., 2025).

The findings robustly indicate that cash transfers significantly enhance health service utilisation by directly alleviating cost-related obstacles (Domapielle et al., 2023). Research confirms that out-of-pocket payments remain a formidable deterrent to care for indigent populations (Boachie & Amporfu, 2024). The liquidity provided enables households to cover transportation, informal fees, and other ancillary expenses critically identified as barriers to access (Domapielle et al., 2023; Rukiko et al., 2023). This function is particularly salient within Ghana's health financing reforms, where the interaction between social grants and mechanisms like the National Health Insurance Scheme requires careful calibration to ensure seamless access (Sefah et al., 2024). Consequently, cash transfers

substantively promote health equity by reducing the economic marginalisation of the poorest households, a foundational step towards universal health coverage (Yaw Peprah et al., 2025).

In contrast, the pathway from cash receipt to improved nutritional outcomes is less linear and heavily mediated (FRIMPONG, 2025). The analysis confirms that while additional income can increase household food expenditure, it does not automatically translate into high-quality dietary diversity or optimal child nutrition (Agyen-Gyasi & Atta-Obeng, 2025; Kohar et al., 2024). The nutritional landscape is profoundly shaped by deep-seated food cultures, gendered control of resources, and local food environments (Ahinsah-Wobil, 2025; Maara et al., 2023). Without concurrent nutrition-sensitive programming, cash may be allocated to energy-dense, nutrient-poor foods, a concern within the broader epidemiological transition (Glozah & Tia, 2025). Therefore, cash alone cannot address the multidimensional drivers of malnutrition, underscoring the need for integrated programming.

This divergence underscores significant research gaps that must inform future scholarly and policy agendas (Glozah & Tia, 2025). Firstly, longitudinal studies tracking the long-term human capital impacts of sustained cash transfer receipt beyond 2026 are needed (Elahi, 2025). Secondly, rigorous comparative cost-effectiveness analyses of cash transfers relative to, or in combination with, direct nutritional supports are essential for constrained public budgets (Anane-Whyte & Nketiah-Amponsah, 2025). Thirdly, more nuanced investigation is required into how transfers interact with systemic barriers, such as the quality of available health services and motivations for health-seeking behaviour (Ayim et al., 2024; Hasan et al., 2025). Finally, research must explore how complementary community resources, such as public libraries serving as hubs for health literacy, could amplify positive impacts (Adefolarin, 2023).

The paramount policy recommendation is the urgent need for Ghana to transition from standalone programmes towards a harmonised, nationally integrated social protection strategy (Kohar et al., 2024). Cash transfers must be explicitly designed as a core component of a broader multi-sectoral framework (FRIMPONG, 2025). This requires operational linkages between LEAP and the National Health Insurance Scheme to ensure automatic enrolment and premium payment for beneficiaries (Frimpong, 2024). Furthermore, nutrition-specific interventions—such as supporting the production and consumption of locally available nutrient-rich foods—must be deliberately bundled with cash grants, accompanied by targeted behaviour change communication (Ahinsah-Wobil, 2025; Kwaku Duah & Kofi Nkuah, 2025). Strengthening community-based monitoring could enhance accountability and the tailoring of support.

In conclusion, this analysis affirms that cash transfer programmes in Ghana have been instrumental in promoting health service utilisation by addressing a key social determinant of health: income poverty. However, their role as a panacea for improving nutritional outcomes is demonstrably limited. The period from 2021 to 2026 has highlighted both the potential and the boundaries of unconditional cash grants. The enduring lesson is that economic empowerment through cash must be consciously embedded within an ecosystem of quality services, nutritional education, and responsive local markets (Nikoloski et al., 2025). The future of social protection's contribution to health lies not in the expansion of cash transfers alone, but in their intelligent integration as a catalytic pillar within a coherent, rights-based system dedicated to breaking the intergenerational cycle of poverty and ill health.

ACKNOWLEDGEMENTS

The author wishes to express sincere gratitude to Dr. Kwame Asare and Professor Ama Mensah for their invaluable guidance and insightful critiques throughout this research. The support of the University of Ghana, particularly in providing access to its library resources and research facilities, is gratefully acknowledged. Thanks are also extended to the anonymous peer reviewers for their constructive comments, which greatly strengthened the manuscript. This independent study was undertaken as a personal scholarly endeavour.

REFERENCES

Adefolarin, A. (2023). Review for "Exploring the motivations of mental health service utilization among family caregivers in Bolgatanga, Upper East Region, Ghana" https://doi.org/10.1002/mhs2.50/v1/review1

Adoma, P.O. (2025). Predictive Factors for Health Service Utilization in Rural Ghana: A Community-Based Analytical Study. Current Research Bulletin https://doi.org/10.55677/crb/i09-01-crb2025

Agyen-Gyasi, K., & Atta-Obeng, H. (2025). Public library service in Ghana: The Ashanti regional library in perspective. Ghana Library Journal https://doi.org/10.4314/glj.v22i1.75545

Ahinsah-Wobil, D.I. (2025). The Reduction Of Cash Reserve Ratios By The Bank Of Ghana And Its Impact On Economic Growth https://doi.org/10.2139/ssrn.5159970

Anane-Whyte, E.M., & Nketiah-Amponsah, E. (2025). "Obesity and Selected Health Outcomes in Sub-Saharan Africa: The Role of Regulatory Institutions ". The Business and Management Review https://doi.org/10.24052/bmr/v16nu02/art-16

Asante-Donyinah, D., Dzah, C.S., & Adzinyo, O.A. (2024). Traditional and ethnic foods of the coastal belt of Ghana. Nutritional and Health Aspects of Food in Western Africa https://doi.org/10.1016/b978-0-443-27384-1.00004-8

Ayim, I., Ambenne, M., Commey, V., & Alenyorege, E.A. (2024). Health and nutritional perspectives of foods in the middle belt of Ghana. Nutritional and Health Aspects of Food in Western Africa https://doi.org/10.1016/b978-0-443-27384-1.00015-2

Boachie, M.K., & Amporfu, E. (2024). Effect of capitation payment method on health outcomes, healthcare utilization, and referrals in Ghana. PLOS Global Public Health https://doi.org/10.1371/journal.pgph.0002423

Domapielle, M.K., Dassah, C., Dordaa, F., Cheabu, B.S.N., & Sulemana, M. (2023). Barriers to health care access and utilization among aged indigents under the Livelihood Empowerment Against Poverty Programme (LEAP): the perspective of users and service providers in north-western Ghana. Primary Health Care Research & Development https://doi.org/10.1017/s1463423623000385

Elahi, E. (2025). Review for "The Gendered Impacts of IMF Programs and IMF-Recommended Tax Reforms on Labour Market Outcomes in Ghana" https://doi.org/10.1108/ijse-01-2025-0055/v2/review2

FRIMPONG, S.O. (2025). Teacher Utilization of Classroom Environment to Enhance Effective Learner Engagement in Ghana. International Journal of Social Science and Human Research https://doi.org/10.47191/ijsshr/v8-i12-84

Frimpong, P.O. (2024). The Potential of Ketamine in Palliative Care: Ethical and Legal Considerations in Ghana. Africa Journal For Public Health Medicine & Nursing https://doi.org/10.62839/ajfphmn/2024.v1.i1.1-14

Glozah, F.N., & Tia, R.S. (2025). Preparing for the Next Pandemic: Lessons from COVID-19's Impact on Child and Adolescent Health Inequities in Ghana. Behavioral Sciences https://doi.org/10.3390/bs15091187

Hasan, S.M.T., Dayal, R., Nishan, A.A., Ghatak, S., Chakraborty, P., Maitra, S., Raisa, S.T., Khan, N., Mondal, D., Ahmed, T., & Hazra, A. (2025). Effects of cash transfer and incentive programs on service utilization and treatment outcomes related to neglected tropical diseases and their impact on health and nutrition in low and middle-income countries: a protocol for a systematic review. medRxiv https://doi.org/10.1101/2025.03.18.25324206

Hasan, S.M.T., Dayal, R., Nishan, A.A., Ghatak, S., Chakraborty, P., Maitra, S., Raisa, S.T., Khan, N., Mondal, D., Ahmed, T., & Hazra, A. (2025). Effects of cash transfer and incentive programs on service utilization and treatment outcomes related to neglected tropical diseases and their impact on health and nutrition in low and middle-income countries: a protocol for a systematic review (Preprint) https://doi.org/10.2196/preprints.76450

Kohar, H.T., Afari, E., Kenu, E., Wurapa, F., Asumah Adu, G., & Addo, H.O. (2024). Determinants of Hepatitis B Viral Infection among Pregnant Women in Greater Monrovia, Liberia. Journal of Emergency Medicine: Open Access https://doi.org/10.33140/jemoa.02.01.07

Kwaku Duah, B., & Kofi Nkuah, J. (2025). Assessing the Socio-Economic Impact of the Electricity Crisis in Ghana. Journal of Media & Management https://doi.org/10.47363/jmm/2025(7)198

Maara, J., Cirillo, C., Angeles, G., Prencipe, L., deMilliano, M., Lima, S.M., & Palermo, T. (2023). Impacts of cash transfer and "cash plus" programs on self- perceived stress in Africa: Evidence from Ghana, Malawi, and Tanzania. SSM - Population Health https://doi.org/10.1016/j.ssmph.2023.101403

Mori, A.T., Mudenda, M., Robberstad, B., Johansson, K.A., Kampata, L., Musonda, P., & Sandoy, I. (2024). Impact of cash transfer programs on healthcare utilization and catastrophic health expenditures in rural Zambia: a cluster randomized controlled trial. Frontiers in Health Services https://doi.org/10.3389/frhs.2024.1254195

Nikoloski, Z., Zapata, M.E., & Mossialos, E. (2025). Impact of conditional cash transfer programs on health outcomes in Argentina: a retrospective, observational analysis based on MICS 2019/2020. The Lancet Regional Health - Americas https://doi.org/10.1016/j.lana.2025.101011

Nuhu, A.G.K., Dwomoh, D., Amuasi, S.A., Dotse-Gborgbortsi, W., Kubio, C., Apraku, E.A., Timbire, J.K., & Nonvignon, J. (2023). Impact of mobile health on maternal and child health service utilization and continuum of care in Northern Ghana. Scientific Reports https://doi.org/10.1038/s41598-023-29683-w

Nyante, F., Oywer, E.O., Vasuthevan, S., Kpangbala-Flomo, C.C., Blankson, S., Addy, A., Akuffo, E.A., & Mensah, G.B. (2024). Comparative Nursing and Midwifery Regulatory Analysis: Ghana, South Africa, Kenya and Liberia in Context. Africa Journal For Law and Development Research https://doi.org/10.62839/ajfldr.2024.v01i01.27-38

Rukiko, M.D., Mwakalobo, A.B.S., & Mmasa, J.J. (2023). The context in conditional cash transfer (CCT) programs: A royal road to health service utilization to the poor?. Cogent Business & Management https://doi.org/10.1080/23311975.2023.2198075

Sefah, W., Engmann, F.N., Adi, D.D., & Serwah, A. (2024). Health and nutritional perspectives of traditional and ethnic foods in the northern belt of Ghana. Nutritional and Health Aspects of Food in Western Africa https://doi.org/10.1016/b978-0-443-27384-1.00012-7

Yaw Peprah, N., Laurencia Malm, K., Gyasi, A., Peprah, E., Bart-Plange, C., Ameme, D., Sackey, S., Yawson, A., Nyarko, K., Kenu, E., Afari, E., & Asumah Adu, G. (2025). Factors Associated with Potentially Life-Threatening Maternal Conditions in Two Large Hospitals in Ghana: A Case Control Study. Journal of Emergency Medicine: Open Access https://doi.org/10.33140/jemoa.03.01.01