## ORIGINAL RESEARCH ARTICLE

# Strengthening equitable health systems in West Africa: The regional project on governance research for equity in health systems

DOI: 10.29063/ajrh2022/v26i5.9

Namoudou Keita<sup>1</sup>, Benjamin Uzochukwu<sup>2</sup>, Odette Ky-Zerbo<sup>3</sup>, Issiaka Sombié<sup>1</sup>, Virgil Lokossou<sup>4</sup>, Ermel Johnson<sup>1</sup>, Chinyere Okeke<sup>2</sup>\*, Sue Godt<sup>5</sup>

Department of Public Health and Research, West African Health Organization<sup>1</sup>; Department of Community Medicine, College of Medicine, University of Nigeria Enugu campus<sup>2</sup>; University of Montpellier<sup>3</sup>; Health emergencies and disaster management division, ECOWAS regional centre for disease surveillance and control, west African health organization<sup>4</sup>; Department of maternal and child health, International development research centre, Nairobi, Kenya<sup>5</sup>

\*For Correspondence: Email: cecilia.okeke@unn.edu.ng; chinyereokeke83@yahoo.com; Phone: +2348064357764

#### **Abstract**

The West African Health Organization (WAHO) supported an innovative regional initiative that contributes to building effective decision making, community and researcher partnerships to strengthen equitable health systems and influence local programmes and policies. Four projects were funded in Nigeria, Sierra Leone, Burkina Faso and Senegal, supported by a Regional Advisory Committee of experts and local Steering Committees. Based on a framework drawn from WAHO objectives, we reviewed documents, conducted 56 project stakeholder interviews and undertook thematic analysis. A diverse range of stakeholders perceived that the projects were in line with national priorities, were well managed and were equitably implemented. The projects generated evidence that could increase access to and improve quality maternal health services. Sustainable partnerships were formed and stakeholder and research team capacity were strengthened. Our study provides insight into project implementation in West Africa, bearing in mind context-specific issues. (Afr J Reprod Health 2022; 26[5]: 81-89).

Keywords: Health systems strengthening, equity, governance, regional, West Africa

## Résumé

L'Organisation ouest-africaine de la santé (OOAS) a soutenu une initiative régionale innovante qui contribue à établir des partenariats efficaces entre la prise de décision, la communauté et la recherche afin de renforcer des systèmes de santé équitables et d'influencer les programmes et politiques locaux. Quatre projets ont été financés au Nigeria, en Sierra Leone, au Burkina Faso et au Sénégal, soutenus par un comité consultatif régional d'experts et des comités de pilotage locaux. Sur la base d'un cadre tiré des objectifs de l'OOAS, nous avons examiné des documents, mené 56 entretiens avec des parties prenantes du projet et entrepris une analyse thématique. Un large éventail de parties prenantes a estimé que les projets étaient conformes aux priorités nationales, étaient bien gérés et mis en œuvre équitablement. Les projets ont généré des preuves qui pourraient accroître l'accès à des services de santé maternelle de qualité et les améliorer. Des partenariats durables ont été formés et les capacités des intervenants et des équipes de recherche ont été renforcées. Notre étude donne un aperçu de la mise en œuvre de projets en Afrique de l'Ouest, en tenant compte des problèmes spécifiques au contexte. (Afr J Reprod Health 2022; 26[5]: 81-89).

Mots-clés: Renforcement des systèmes de santé, équité, gouvernance, régional, Afrique de l'Ouest

## Introduction

Strengthening the health system is crucial, especially for developing countries where the health outcomes are unacceptably low and the persistence of deep inequities in health status is a problem<sup>1</sup>. The region has the highest maternal and newborn mortality in the world. Of the 20 countries with the highest maternal mortality rates worldwide, 19 are in Africa, which also has the highest neonatal death rate in the world<sup>2</sup>.

Healthcare systems in Africa suffer from neglect and underfunding, leading to severe challenges including inadequate human resources, inadequate budgetary allocation to and poor leadership and management among others<sup>3</sup>. There is also the strain on African health systems imposed by the high burden of communicable and non-communicable diseases<sup>2</sup>. The fragile nature of the African health system was made manifest during the 2014 Ebola virus disease outbreak and the COVID-19 pandemic in West Africa sub-region which further

Keita et al.

put stress on the health systems<sup>4</sup>. These outbreaks identified the need to strengthen governance and accountability from community to global levels<sup>5</sup>.

Efforts at strengthening the health system in West Africa are being prioritised by the West African Health Organization (WAHO) as a critical key health systems actor in the region. WAHO's mission is to propel the attainment of the highest possible standard and protection of health of the peoples in the sub-region through the harmonization of the policies of the member States, pooling of resources, and cooperation with one another and with others for a collective and strategic combat against the health problems of the sub-region.

In partnership with the International Development Research Center (IDRC), WAHO embarked on a regional project on governance research for equity in health systems, overseen by the Regional Advisory Committee (RAC) and the Steering Committee. The overall objective of the project was to support a West African initiative that contributes to establishing a body of knowledge about strengthening equitable health systems that drives the design of national and local programmes and policies. Subsequently, four research projects targeting specific health system issues were rigorously selected in four countries namely strengthening of the health system through better, equal access to primary healthcare (Nigeria); barriers faced by pregnant women to free access to health facilities (Sierra Leone); the development of a process for assessing the performance of the district health system (Burkina Faso); and funding, equity and governance in the health system (Senegal). This paper seeks to document the implementation, process, outcome and perceived impact of the projects on governance research for equity in health systems in West Africa.

## **Methods**

This was a qualitative, descriptive study conducted between June and July 2017 in the four countries where the project was implemented and at WAHO's headquarters. The framework underpinning the methodology (Figure 1) included elements such as project process (Relevance, Project Planning, Community Involvement, Project Implementation and Monitoring), project outcome (Equity, Effectiveness, Efficiency and Partnership) and project impact (Capacity

Strengthening equitable health systems in West Africa

Building, Sustainability and Perceived Impact of the projects in the countries and Lessons Learned). This framework was derived from WAHO's priority: to learn to use research results with a view to improving the implementation of priority health programmes to strengthen health systems and the foundation for evidence-based decision-making.

#### Data collection

Two main data collection methods were used:

- 1. Document Review
- 2. Key informant interviews with key stakeholders

#### Document review

Both published and unpublished (grey) materials from national levels were examined. Sources included print and/or on-line journal databases, grey materials (published and/or unpublished documents) for example, concept notes, technical and scientific reports, presentations to national and regional meetings and to conferences, and final research reports of WAHO. Key words were entered into various search engines (Google, Google Scholar, Directory of Open Access Journals, etc.) and websites of relevant agencies (e.g. World Health Organization, UNICEF, UNFPA, ECOWAS). Some keywords used in the search were: MCH, health systems strengthening, health systems research. With the aid of a literature review template, the review findings were analyzed and the relevant information taken into account in the findings presented.

## Key informant interviews

Using the criteria in the framework (Figure 1), we designed an interview guide to collect information on three main project sections; process, outcome and impact. Key informant interviews were organized with stakeholders involved at different levels in the research exercise. This list of respondents and their categories is contained in Table 1 below. A total of 56 persons were the agreement of the interviewed. With respondents, notes were taken and audio recordings made. The most used method was personal discussion. In addition, two focus group discussions were held with research assistants in Senegal and Nigeria. Each interview lasted between 30 to 90 minutes.

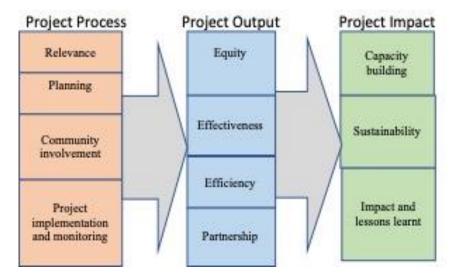


Figure 1: The framework underpinning the methodology

**Table 1:** Categories of respondents

Respondent category	Respondents profile	Number
Research teams	The 4 Principal Investigators	4
	2 Research assistants trained in the project countries.	8
Decision makers at the Ministry of Health	2 per country	8
Programme managers at the State/District level	2 per country	8
Regional/State directors of health where the project was implemented	1 per country	4
Health workers in the district/Local government Area (LGA) where the project was implemented	2 per district/LGA/Country	8
Members of steering committees	2 per country	8
Members of the Regional Advisory Committee (RAC)	RAC members attached to the projects for peer support	4
WAHO staff	WAHO's Implementation Team of the Regional Project	4
Total		56

The spread of respondents, from local to national to regional levels, enabled the collection of diverse reflections that can generate insights and lessons. With the consent of the respondents, notes were taken and audio recordings made.

## Data analysis

Interviews were recorded and transcribed in English in Nigeria and Sierra Leone and French in Burkina Faso and Senegal. The data was analyzed with a grounded theory approach, where key themes were identified using the criteria in the framework based on inductive reasoning of participant responses. Two authors thematically analyzed the open-ended questions in three stages using Excel (Microsoft Office): (i) reviewing all

the textual data to gain an overall impression; (ii) identifying all comments that appeared noteworthy to the research, extracting these initial themes; and (iii) collating and synthesizing primary themes. Each major finding was interpreted to give meaning within its context..

## **Results**

The result of this study has been categorized into three main sections, namely: project process, outcome and impact. According to the project stakeholder perception, all the projects were relevant and aligned with the countries' priorities. Most of the stakeholders, including those in the communities where the projects were

Keita et al. Strengthening equitable health systems in West Africa

implemented, were involved early in the project and the project benefitted from both internal and external monitoring which ensured that the projects were delivered as planned in the four countries.

Stakeholders' perspective on project process in terms of relevance, planning, community involvement, implementation and monitoring of the projects

## a. Project relevance

In the four countries, the projects were perceived to be relevant and consistent with the priorities of the governments in reducing maternal mortality. This was aptly captured by the different respondents in the four countries thus:

"This project is very relevant and good because pregnant women and children die a lot in this area and it is important to put things in place to reduce these deaths" (Health worker, Nigeria).

"One of the priorities of the President is the reduction in maternal and infant mortality rates" (Decision maker, Sierra Leone)

"It was a welcome study, because it would constitute a source for truly supporting the districts and, especially, enhance the national health systems" (Decision maker, Burkina Faso).

"..rarely were any analyses made connecting the resources allocated to the health structures to reduce maternal and child deaths and the objectives assigned them" (Decision maker, Senegal).

## b. Project Planning

In terms of planning for the project, there was key stakeholders' engagement including decision makers, programme managers and researchers and community members in each country, taking into consideration, country's specific contexts as stated by the respondents:

"we had to change the study sites considering the peculiarities of our State including geographical consideration, language and culture as some communities were in the Creek and others in upland. So, we covered the 3 key tribes of Ishekiri, Ijaw and Isoko. We did this to ensure equity". (Decision maker, Nigeria)

"as at the time of the project, Bombali district had the highest maternal mortality in the country although it is second now" (Decision maker, Sierra Leone)

"Although the ministry of health did not involve us initially, we later had the opportunity to contribute to defining the performance indicators of the districts" (Health worker, Burkina Faso)

"Following the IDRC call, the research team in collaboration with the ministry of health drafted the initial protocol" (Steering committee member, Senegal)

#### c. Community involvement

Community participation was a key aspect of the project as the community members were mobilized for the project in all the countries. This was noted by the respondents:

"We were informed of the project by people from the Ministry of Health and we helped to identify the health needs of our people since we are all living with them. We also helped in sensitizing the community about the project and collecting data" (WDC member, Nigeria)

"I connected the project to the health management committee as well as the council and ensured the project was discussed and accepted in the health committee and council" (Steering committee member, Sierra Leone).

In Burkina Faso, the community were mobilized to develop a tool for effective distribution of resource allocation by the government. This collaborative process occurred over six months and three workshops to iteratively finalise the tool as noted by a respondent: "we met severally like three times in workshops over five or six months to develop the tool" (Health worker). In Senegal, community members gave feedback on health worker behavior and users' perceptions on the services as captured by a respondent: "Community members were involved in providing feedback to develop evidence-based knowledge for directing the decision makers as well as users' satisfaction" (Programme manager).

#### d. Project implementation and monitoring

In all four countries, the projects were implemented through a steering committee which was set up from the start of the project. The committee members were appointed with the aim of enabling the involvement of all actors from the beginning of the project, creating networks among the researchers, decision makers, community members and civil society. They monitored and guided the research and facilitated the transformation of the research findings into concrete action and facilitated ownership and optimization of the research findings.

Monitoring of the projects were carried out by the monitoring unit within the various steering committees, the regional advisory committee (RAC) specialists and WAHO. In addition, the Rural Foundation in West Africa (FRAO) which was commissioned by WAHO, lent support for the development of monitoring and evaluation plans in all the countries, while both technical and financial reports were presented every six months to IDRC and WAHO that also played a managerial and technical role in the project.

## Stakeholder perspectives on project outcomes

The four projects were said to have achieved various outcomes in terms of promoting/integrating equity, effectiveness, efficiency and partnership.

## a. Equity

In Nigeria, the selection of the study sites took into consideration the different tribes in the state as noted by a respondent: "we had to change the study sites considering the peculiarities of our State including geographical consideration, language and culture as some communities were in the Creek and others in upland. So, we covered the 3 key tribes of Ishekiri, Ijaw and Isoko. We did this to ensure equity". (Decision maker). And in Sierra Leone, the intended primary beneficiaries were pregnant women. In Burkina Faso, the program was seen to assess the effectiveness of equity of district health systems with a view to "supporting decision-making based on improving equity in access to health system benefits" (Programme manager). The program was seen to analyze all the aspects of financing for both the vulnerable groups and the rich in Senegal and according to a respondent, "the policies that would emanate from this would reach all the citizens and thus could be beneficial to all" (Regional director).

#### b. Effectiveness

The project was seen to contribute to improving the health of people, as emphasized by one respondent "it has created increased awareness on the need for utilization of the primary health care services especially for the pregnant women and the under five children." (Decision maker, Nigeria). In Sierra Leone, there is a perception that the project has helped lay the foundation for improving health quality /for building the evidence for change. One respondent put it thus: "the project is seen to increase access to quality maternal services and improve maternal health services....this will positively impact on the health indices of the country" (Programme manager). In Burkina Faso, the project took account of needs of the communities and produced results that met their expectations, thereby reducing the efforts needed at the end of the research to foster ownership and use of results, and in Senegal, the project was said to be effective in evaluating the effectiveness of the financing and governance of the health system and according to a respondent, "this was facilated by the multi-disciplinarity and dynamism of the research team which enabled the attainment of useful results for the health ministry" (Steering committee member)

#### c. Efficiency

The projects are efficient on the basis of the collaborative nature of the implementation of the project with WAHO, RAC as key participants, and the results were said to have been achieved at reasonable costs. For example, in Burkina Faso, a respondent noted that "data collection was conducted by the same staff of the health districts, thereby limiting the cost of recruitment of investigators to be transported from Ouagadougou to the study regions" (Steering committee member). This was also noted in Nigeria: "project results were achieved at reasonable cost with surplus to supplement engagement by the research team and the steering committee" (Steering committee member). However, it was noted that the efficiency could be improved if there is decision maker and end user engagement by WAHO. In Senegal, a respondent noted that the project was an "efficient way to evaluate the effectiveness of financing and governance of the health system" (Decision maker).

## d. Partnership

There was some level of partnership amongst stakeholders in all the countries. While IDRC released the main project implementation funds, released supplementary WAHO funds additional activities. In Nigeria, there was partnership with the national, sub-national and local government as well users of primary health care facilities and community leaders. In Sierra Leone, the project worked with civil society groups especially those involved in monitoring the free health care initiative. In Burkina Faso, the project worked with other specialists not involved with the research e.g. local representatives, members of the health and social promotion centers (Centres de santé et de promotion sociale (CSPS) who participated in data collection and supervision and in Senegal the project developed a "perfect relationship with the Ministry of Health and other stakeholders from other line ministries like the ministry of Finance (Steering committee)

## Stakeholder perspectives on project impact in terms of capacity building, sustainability, impact and lessons learnt

## a. Capacity building

There were various capacity building initiatives embedded in all the projects. First, was the mentorship program which involved the training of the team members, decision makers and steering committee members on action research and on MEL. A research assistant put it thus: "We learned how to carry out qualitative and quantitative data collection and also how to manage people in the field" (Research assistant, Nigeria). In Nigeria, one Ph.D. and two M.Sc students were trained. In Burkina Faso, one PhD in public health and two MSc students were trained, while in Senegal, two PhD students in health economics and health anthropology and nine MSc students had their dissertation from the projects. Team members also benefitted from short courses like results-based financing, data processing techniques, health systems and policy research and other aspects of research methodology. In Sierra Leone, the training on MEL and supervision were cascaded to lower levels by the steering committee members. In all countries, the project was able to train enumerators on data collection.

## b. Sustainability

There is a perceived likelihood that benefits produced by the project will continue to flow after external funding has ended in all the countris. For example, in Sierra Leone, a respondent noted that the "benefits produced by the project could potentially continue after external funding has ended if the recommendations are implemented to train and deploy skilled birth attendants" (Programme manager). And in Nigeria the decision makers were interested in carrying out similar surveys in the remaining LGAs not covered by the project. In Burkina faso, a respondent noted "If the tool is finalized and disseminated, one district intends to use it for the next health district evaluation" (Steering committee member). And in Senegal, the presence of the Ministry of Finance and Economic Planning to lend financial support to the Ministry of Health ensures identification of the potential users of the results.

## c. Perceived impact and lessons learnt

is perceived that with further result communication and dissemination, recommendations of the project could potentially influence policy in different parts of the countries. For example, in the Nigeria case, policy makers have agreed to make changes in the policies and been implemented some have "like introduction of free maternal and under five child care in the PHCs which was not there initially" (Decision maker). In Sierra Leone, the ministry of health and partners have embarked on upgrading five basic emergency obstetrics centres in the district by "providing running water, electricity and other facilities and the district council has agreed to include the recommendations of the project in their annual work plan so that activities and budgets to address these issues will be developed" (Decision maker). In Burkina Faso, the northern region is said to be planning to use the tool for the next evaluation of the health district while the technical and financial partners of the upper basin region is envisaging using the tool for health training with a view to providing family planning services. At the strategic level, decision makers have raised issues on financing, equity and efficiency of the health services in Senegal.

Strengthening equitable health systems in West Africa

## Discussion

The overall project has pioneered a 'new way of doing research' by facilitating collaboration and relationship building between researchers, decision makers, communities, and healthcare providers. In all, the projects were aligned with each countries' priorities, and they are also of current interest to health systems strengthening.

## Project process

The planning of the projects by the research teams and the relevant ministries involved a participatory process that included stakeholders other than those of health which enabled their opinions to be included and amendments made in the research protocol. The involvement of these stakeholders occurred at different implementation points in the different projects which affected the level of interaction between the stakeholders and likely to influence the uptake of their research findings.

Studies have shown that there is need to strengthen institutions and mechanisms that can promote interactions between researchers, decision makers and other stakeholders who can influence the uptake of research findings<sup>6</sup>. This study therefore has reinforced this point because there is a consensus that a huge gap exists between decision makers and researchers. This gap is known to be responsible for the problem of translating research evidence into policy<sup>7</sup>. There is sufficient evidence showing that it is only by coming together in a collaborative way, that decision makers and researchers can ensure that the knowledge generated is valid, and aligned with the health needs of society<sup>8-12</sup>.

The projects were implemented by the research teams and the stakeholders, but the funding and supervisory function came from WAHO and IDRC. Studies have shown that donor interest in funding health programmes that demonstrate effectiveness and value for money is intensifying, prompted by the global economic crisis and global commitments to address health and poverty problems embodied in the Sustainable Goals<sup>13-15</sup>. Development However. donor prioritization and reliance as in this project is unlikely to ensure sustainability and within these constraints, we believe that domestic resource mobilization and country's counterpart funding should be the priority to ensure scale up of projects. Despite these, working together have been identified as the key ways in which each of the three main groups of actors — implementers, governments and donors — may enhance the prospects of scaling up innovations and findings<sup>9,16-17</sup>.

The idea of the use of various committees to oversee the implementation of the projects was innovative. The Steering committee comprised both the state and federal officials; the project management committee comprised the local government, community and the facility personnel, while the project team comprises the researchers and mentees. These brought about community ownership and participation in various aspects of the projects, like data collection, mutual discussion amongst stakeholders, and general oversight.

## Project outcomes

Equity is defined as 'the attainment of the highest level of health for all people by creating equal opportunities for health, and with bringing health differentials down to the lowest level possible' 18, and the four projects made an effort to integrate this into their design and implementation. For example, the primary intended beneficiaries of the project were those in the rural communities and pregnant women, many of whom were seen to be poor and could not afford the care at the health facilities.

The projects were perceived as effective in delivering critical interventions by contributing to increase in access to quality maternal services. It encouraged the use of local manpower without the employment of external consultants and encouraged an enriching and formative framework of exchange between the researchers and decision makers. The multi-disciplinarily and dynamism of the research teams was also an effective way of project implementation.

The project was considered as an efficient way of providing technical support because of the structures that were put in place for example, the RAC specialists which was established by WAHO and IDRC in 2012. The RAC was to provide technical advice to the project teams. The use of staff of the health facility to collect data was an efficient way of saving cost, while the wide dissemination of findings of the project and the amount of people empowered through various capacity building activities are evidence of the

Keita et al.

effectiveness of the projects. Some important outcome elements identified included: acceptance of the project by stakeholders, strengthened partnerships, existence of provisions for user engagement and steering committee member engagements over a period.

## Impact of the project

These projects have provided evidence for informed decision making. The movement toward evidence-based policymaking has seen significant progress in recent years. But these efforts are still nascent, and many government actors could strengthen their use of evidence-based approaches<sup>19-20</sup>.The multi-disciplinarily dynamism of members from all cadres fostered partnership and started long-lasting relationships which did not exist before the commencement of these projects. It will also serve as sustainable platform for the projects and the uptake of recommendations from the project findings.

There is the perception that the benefits produced by the project will continue after external funding has ended. A project is considered sustainable when a continued utilization of its results can be assured after the completion of the project<sup>21</sup>. It has been noted elsewhere that project and "research" programme sustainability largely depends on local political support, sustainable financing for health research, quality and availability of local human resources to support the harmonization of research practices among others<sup>22</sup>. One major good practice documented is the use of Steering committee which was established by all the selected projects. Members actively participated early in project design by reviewing the research proposal and protocol, and subsequently validated the reports and supervised the projects as a whole. This West African experience in establishing Steering Committees for better collaboration between researchers and decision makers to increase the use of health research findings has been documented in another study<sup>23</sup>. These lessons and evidence can also be adopted by other countries wishing to carry out similar projects.

## Limitation of the study

The documentation which did not cover the full implementation period did not enable an in-depth

Strengthening equitable health systems in West Africa

analysis to be made of the aspects linked with knowledge transfer which is extremely important in this research framework. However, there are enough results to make recommendations for policy and practice.

## **Conclusion**

This research initiative has generated interest for research in health systems for investigators and decision makers, and in particular catalysed investigator interest in knowledge transfer. The innovation is in 'how to do research differently' by catalysing decision maker, community, researcher partnerships to identify the problem, participate in the research and work to ensure the use of the results. It has also enabled a significant regional health policy actor, WAHO to start engaging differently with regional and national stakeholders around knowledge translation, policy research and practice. However, lack of adequate research funding is a limitation to achieving intended results. Hence the need for domestic resource mobilization to locally fund research. The role of WAHO in supporting investigators for knowledge transfer in the sub-region should be strengthened and they should continue to support countries in the sub-region for health systems implementation.

## Ethical approval and consent to participate

All ethical rules in force relating to the project were complied with. These included: (i) informed consent from participants (ii) privacy protection for the interviewees, (iii) confidentiality on the data collected, (iv) objective and unbiased data analysis given the specific characteristics of the countries. Ethical clearance was obtained by each project team from their country's Ethics and Research Committee

## **Consent for publications**

We declare that permission for publication was obtained for this study.

## Availability of supporting data

The dataset used for this study as well as any other material needed is available and can be obtained from the lead author upon request. Keita et al.

## **Competing interests**

The authors declare they have no conflict of interest nor competing interests.

## **Funding**

The author(s) disclosed receipt of financial support for the research by IDRC, but non for publication of manuscript. The views expressed are those of the authors and not those of IDRC.

## **Authors' contributions**

KN, UB, GS and KO conceived the idea of the study. KN, UB, KO, SI, CO and LV participated in the design of the study and data collection. UB, KO performed the statistical analysis and interpretation of result, KN drafted the first version of the manuscript. All the authors contributed in revising the first draft of the paper and approved the final version.

## Acknowledgments

The authors wish to thank the funders and the respondents.

## References

- World Health Organization . Strengthening health systems to improve health outcomes: WHO's framework for action. Geneva: WHO 2007.
- Sambo LG and Organization World Health. The health of the people: what works: the African Regional Health Report 2014. World Health Organization, 2014.
- Obinna OO, Momoh J, Uzochukwu BSC, Mbofana F, Adebiyi A, Barbera T, Williams R and Taylor-Robinson SD.
   "Identifying key challenges facing healthcare systems in Africa and potential solutions." International journal of general medicine. 2019 (12): 395.
- Cilliers JJ, Oosthuizen M, Kwasi S, Kelly A, Pooe TK, Yeboua K and Jonathan DM. "Exploring the impact of COVID-19 in Africa: a scenario analysis to 2030." Institute for Security Studies (2020).
- Godt S, Agyepong I, Flores W and Sen G. Healthy lives for vulnerable women and children: applying health systems research. IDRC, Ottawa, ON, 2017.
- 6. Uneke CJ, Ezeoha AE, Uro-Chukwu HC, Ezeonu CT and Igboji J. Promoting researchers and policy-makers collaboration in evidence-informed policy-making in Nigeria: outcome of a two-way secondment model between university and health ministry. International journal of health policy and management, 2018: 7(6), 522.
- 7. Brownson RC, Chriqui JF and Stamatakis KA.
  Understanding evidence-based public health policy.

- Strengthening equitable health systems in West Africa
  - American journal of public health, 2009(9):1576-1583..
- Peters DH, Tran NT and Adam T. Implementation research in health: a practical guide. World Health Organization, 2013.
- World Health Organization Beginning with the end in mind: planning pilot projects and other programmatic research for successful scaling up. 2011.
- Rathgeber EM. Research partnerships in international health capitalizing on opportunity. Ottawa, Carleton University: University of Ottawa 2009.
- 11. Hovlid E and Bukve OA. qualitative study of contextual factors' impact on measures to reduce surgery cancellations. BMC health services research 2014; 14: 1-11.
- Orton L, Lloyd-Williams F, Taylor-Robinson D, O'Flaherty M and Capewell S. The use of research evidence in public health decision making processes: systematic review. PloS one. 2011:6(7), 21704.
- Paina L and Peters DH. Understanding pathways for scaling up health services through the lens of complex adaptive systems. Health policy and planning 2012; 27: 365-373.
- 14. Spicer N, Bhattacharya D, Dimka R, Fanta F, Mangham-Jefferies L, Schellenberg J, Tamire-Woldemariam A, Walt G and Wickremasinghe D. 'Scaling-up is a craft not a science': catalysing scale-up of health innovations in Ethiopia, India and Nigeria. Social science & medicine. 2014: 121, pp.30-38.
- Barker PM, Reid A and Schall MW. A framework for scaling up health interventions: lessons from largescale improvement initiatives in Africa. Implementation Science. 2015; 11: 1-11.
- World Health Organization . Nine steps for developing a scaling-up strategy. World Health Organization, 2010.
- Yamey G. Scaling up global health interventions: a proposed framework for success. PLoS Med 2011; 8:1001049.
- Farrer L, Marinetti C, Cavaco YK and Costongs C. Advocacy for health equity: a synthesis review. The Milbank Quarterly. 2015:93(2),392-437.
- Milner J and Eldridge M. From evidence to outcomes: Using evidence to inform pay for success project design. 2016.
- Lester P. Managing toward Evidence: State-Level Evidence-Based Policymaking and the Results First Initiative. The Annals of the American Academy of Political and Social Science 2018; 678: 93-102.
- Khan M. Planning for and monitoring of project sustainability: a guideline on concepts, issues and tools. Retrieved on June 2000; 25: 2012.
- Aidam J and Sombié I. The West African Health Organization's experience in improving the health research environment in the ECOWAS region. Health research policy and systems 2016; 14: 1-11.
- 23. Keita N, Lokossou V, Berthe A, Sombie I, Johnson E and Busia K. The West African experience in establishing steering committees for better collaboration between researchers and decision-makers to increase the use of health research findings. Health research policy and systems. 2017:15(1),113-124.