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ORIGINAL ARTICLE

Towards Health for All in Nigeria: A Sustainable Primary Health Care Pilot Model in Ondo State, Nigeria

Osunmakinwa OO,[1,2] Oladoyin VO,[1,5] Adebimpe OW,[1,3] Ogundele OA,[1,4] Ibirongbe DO,[1,5] Ayodeji OF,[6] Fatusi AO,[7,8] Asuzu MC.[1,3]

[1]Department of Community Medicine, Faculty of Clinical Sciences, University of Medical Sciences, Ondo, Ondo State, Nigeria
[2]Institute of Community Health Innovation and Development, University of Medical Sciences, Ondo, Ondo State, Nigeria
[3]Department of Epidemiology & Biostatistics, School of Public Health, University of Medical Sciences, Ondo, Ondo State, Nigeria
[4]Department of Population, Family & Reproductive Health, School of Public Health, University of Medical Sciences, Ondo, Ondo State, Nigeria
[5]Department of Health Policy and Management, School of Public Health, University of Medical Sciences, Ondo, Ondo State, Nigeria
[6]Department of Obstetrics and Gynaecology, Faculty of Clinical Sciences, University of Medical Sciences, Ondo, Ondo State, Nigeria
[7]Centre for Adolescent Health and Development, School of Public Health, University of Medical Sciences, Ondo, Ondo State, Nigeria
[8]Department of Community Health, Faculty of Clinical Sciences, Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria

Keywords
Alma Ata Declaration,
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ABSTRACT

Background: The Nigerian experience of primary health care (PHC) implementation falls short of key principles related to the Alma-Ata Declaration, with consequent poor performance. The desire for an improved PHC system stimulated the conceptualization and piloting of a community-driven and sustainable PHC and health for all (SPHC-HFA) model. This paper describes the SPHC-HFA model in Ward 7 of Ile-Oluji/Okeigbo LGAs, Ondo State, Nigeria, detailing its features, establishment, and comparison with the traditional PHC (T-PHC) model.

Methodology: This is a review paper detailing the implementation process of the Okeigbo SPHC-HFA model project, from its conceptualization and community selection to the establishment of a functional, sustainable PHC model structure. Five primary care service delivery measures were adopted to compare the SPHC-HFA and T-PHC.

Implementation Processes: The community leadership of Okeigbo Kingdom took prominent roles in the establishment of the Ward 7 SPHC-HFA model, which entailed the selection of Ward 7; community nurse/midwife engagement and placement; enumeration area demarcation, de-jure census, and health survey; official launch of the program and take-off; development of at-risk-register; and routine home visits and commencement of clinic consultation. The SPHC-HFA model was rated higher than the T-PHC model regarding inclusiveness of care, active community engagement, and availability of population-based data for evidence-based PHC operations.

Conclusion/Implications: The Okeigbo Ward 7 SPHC-HFA model provides a practical demonstration of a community-driven PHC model with the potential for sustainability and presents the government and other stakeholders with a framework for possible adoption or adaptation of its best practices and lessons learnt.

Correspondence to:
Dr. Olugbenga O. Osunmakinwa
Department of Community Medicine,
University of Medical Sciences, Ondo, Ondo State, Nigeria
Email: osunmakinwa@unimed.edu.ng.; osunmakinwa2@gmail.com.

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INTRODUCTION

Primary Health Care (PHC), as enunciated in the Alma Ata Declaration of 1978, remains a central theme in the global health development arena. As affirmed by the global community in 2018 through the Astana Declaration, PHC is at the core of the efforts to meet the health needs of populations worldwide.[1,2] Nigeria endorsed the Alma Ata Declaration in 1978, commenced piloting in 1986 and approved it as the cornerstone of its national health system in the 1988 National Health Policy. The limited progress recorded in the early phase of PHC implementation in Nigeria has been inconsistent and failed to meet the set national targets.[3] Low level of community engagement, overt top-bottom management approach, donor dependence, and dearth of human resources are notable contributory factors to the country's low PHC performance.[4-7] Previous universities have made efforts toward university-assisted health for all (HFA) activities. Examples include the Ibarapa project at the University of Ibadan and the Malumfashi project of Ahmadu Bello University. However, none of these has been successfully implemented with statutory community-based nurse-midwives and the full engagement of the LGA.[8] A new and innovative model that prioritizes the pivotal role of the community in owning and driving the process of PHC implementation is needed for effective and sustainable PHC.

The Okeigbo sustainable PHC and health for all (SPHC-HFA) model being piloted in Ondo State, Nigeria, is one of such innovative models that attempt to address identified gaps in the existing traditional PHC (T-PHC) model in Nigeria that fall short of key PHC principles of community ownership, sustainability, and universal access/equity of care. This SPHC-HFA model was conceptualized by the Institute of Community Health Innovation and Development (ICHIAD) of the University of Medical Sciences (UNIMED), Ondo, Nigeria. The model was implemented in partnership with the Department of Community Medicine at UNIMED, the Ondo State Ministry of Health, Ondo State Primary Health Care Development Agency (OSPHCDA), the Local Government Area (LGA) authorities, and the leadership of the focal community led by the king of the town.

This review centers on showcasing the development of the Okeigbo SPHC-HFA model. It highlights the unique characteristics and best practices that set the Okeigbo model apart from the existing T-PHC model in the country. The paper provides a detailed account of the design and implementation processes of the Okeigbo SPHC-HFA model, underscoring its distinctive benefits and potentials that distinguish it from other PHC models nationwide. This research aims to present empirical evidence supporting a viable pathway for comprehensive and sustainable PHC delivery. It also acts as a resource for adopting or adjusting the processes and practices necessary to establish the SPHC-HFA model, along with the insights gained.

Table 1: Best practices incorporated into the SPHC-HFA model and rationale

Best practices	Rationale
Empowerment of the community leadership	To promote bottom-up management and engender effective community ownership and participation in PHC.
Integration of community- and clinic-based PHC services	To enhance comprehensiveness, continuity, quality and accessibility of care and improve community-based health promotion and adoption of healthy practices
Engagement of a statutory in the CNMW PHC system.	To bridge the service delivery gap between the health facility and the community, facilitate community-based assessment of population health and determinants and promote social accountability
Generation of population-based data and evidence-based approach to define needs and drive the operations of PHC system	This facilitates the placement of at-risk registers, determination of population-based health rates --as against the traditional sample-based health ratios; promotes evidence-based programme planning and implementation, and effective monitoring and assessment of the impacts of interventions.

Table 2: Targets for home visit for stable, non-complicated chronic diseases

Chronic diseases	Agreed periodicity of home visits (stable, non-complicated cases)
Hypertension	Twice per annum (minimum)
Diabetes	Twice per annum (minimum)
Arthritis, Lower Back Pain, Joint Pains	Twice per annum (minimum)
Tuberculosis	Monthly in 1st 2 months of treatment, then twice monthly until sputum is negative
Sickle Cell Anaemia	Twice per annum (minimum)
Mental illness	Twice per annum (minimum, except called)

Source: SPHC-HFA project implementation guide

METHODOLOGY

Project setting

Okeigbo Ward 7 is a peri-urban community in Ile-Oluji/Okeigbo Local Government Area (LGA) of Ondo State, Southwest Nigeria. Based on the 2006 National Population Census, the LGA's projected population in 2021 was 261,589, with an annual growth rate of 2.8%.[9] The community has two government-owned health facilities: a comprehensive health center and a maternity center.

Project design

This is a review of the implementation process of the Okeigbo SPHC-HFA model project, spanning the period from conceptualization and community selection to establishing a functional, sustainable PHC model structure in line with the project objectives.

The design of the SPHC-HFA model evolved through an understudy of the existing T-PHC system in the country, identifying fundamental gaps in its operations and incorporating specific interventions uniquely packaged to address the identified gaps. It also drew from the experience of one of the authors (MCA), who had been involved with or observed similar models in the Philippines, the Fiji Islands and China.[10] The intervention aligns with the national policy that recognizes the political ward as the primary unit of PHC in Nigeria and the local government as

the primary implementor of the system in the country.

At the conceptualization of the SPHC-HFA model, a joint committee of Ondo State, the local government health authorities in the State, and the University of Medical Sciences, Ondo City, selected three communities: rural, peri-urban, and urban community settings for piloting the model. These three community settings were selected considering the diverse technical and socio-political peculiarities envisaged in establishing and executing PHC and HFA across such localities with differing geo-demographic characteristics. This article focuses on the SPHC-HFA model in Ile-Oluji/Okeigbo LGA, the peri-urban community setting.

The design of the SPHC-HFA model prioritized active community engagement at every stage of the project to engender strong community ownership and enhance the capacity for sustainability. The community leadership of Okeigbo Kingdom took prominent roles in the selection of one out of the four political wards that the Okeigbo Kingdom covers. The political ward is, by policy, the smallest community of PHC in Nigeria.[13] They were also empowered to identify and recommend a qualified member of their community for recruitment as a statutory community nurse/midwife (CNMW).

Figure 1 - The planning and execution of the enumeration area demarcation (EAD) process; conducting the official census and health survey following training of the youth volunteers provided by them (the community); mobilizing resources (human, material, and financial) for the EAD, the official census, and the health survey;

Figure 2 - Raising awareness about the project in the community, as demonstrated during the project's commissioning and ongoing monitoring and evaluation. Patients were excluded from the process of establishing this project.

Assessment of primary care system performance

We used the consolidated framework for assessing primary care organization and performance developed by Senn and colleagues as the basis for comparing the SPHC-HFA model and the T-PHC model. Primary care service is one of the four domains of this framework. The five elements of the primary care services domain are integration of patient care, interpersonal care, comprehensiveness of care, inter-professional relationships, and advocacy and community action.[13]

Ethical considerations

This work is one of the University of Medical Sciences, Ondo City's community medical and health practice intervention programs. It is done in collaborative assistance with the local government authority whose responsibility under the law is to provide those services, the statutorily superintending state government, and the entire community and leadership itself. It is a statutory PHC service delivery program in line with the mandates of the university's vision and mission statements and, as entrenched in the 1978 Alma Ata declaration endorsed by Nigeria and approved in the 1988 national health policy.

Implementation Process

Distinct features and best practices incorporated into the SPHC-HFA model:

The project incorporated four best practices as interventions in the establishment of the SPHC-HFA model in Okeigbo Ward 7, which are active community engagement, engagement of statutory community nurse/midwife (CNMW) and placement of at-risk register; integration of total statutory community-based and clinic-based PHC services; and operation of a PHC driven by the use of population-based data. Detailed rationale for these practices is shown in Table 1.

Process of the establishment of the Okeigbo SPHC-HFA model:

The process of establishing the model consisted of:

- *Constitution of the implementation steering committee and selection of the ward for implementation of the project.*

Membership of the committee included representatives of the Ondo State Ministry of Health and Ondo State Primary Health Care Development Agency (OSPHCDA), Ondo State Ministry of Education, Ile-Oluji/Okeigbo LGA Chairman, Ile-Oluji/Okeigbo LGA Medical Officer of Health (MOH), UNIMED and the Okeigbo community. A political ward, based on the PHC ward health system, was chosen in each LGA.[13]

- *Advocacy and stakeholders' engagement*

The community engagement process involved visits to and interactions with key stakeholders, including the implementation steering committee, the National Population Commission (NPopC) and the UNIMED Teaching Hospital (UNIMEDTH). Furthermore, the stakeholders jointly developed and signed a Memorandum of Agreement (MoA).

- *Engagement and placement of a community nurse/midwife*

The selection criteria for the CNMW were government certification as a nurse/midwife; resident in the community, preferably an indigene therein; fluent in the local dialect; of good personal and professional reputation in the community and recommended by the community leadership.

Functions of the CNMW as defined by ICHIAD and OSPHCDA include:

(1) Collection, maintenance, dissemination and utilization of population-based health data.

(2) Conduct regular statutory at-risk clients' community health rounds and follow up with clients on 3 of the 5 working days of the week. (Table 2).

(3) Provision of health facility-based services - supported by MOH/physician or other health workers

(4) Implement community-based health interventions, such as missed or delayed immunization and antenatal care.

- *Participation in the conduct of enumeration area demarcation, de-jure census, and health survey*

This was implemented between December 2019 and March 2020 via the joint efforts of officials of UNIMED, NPoPC, the LGA and the community leadership. Outputs of the exercise include the EA map of Okeigbo Ward 7 (Figure 3) and the baseline population-based data of the community.

The official launch of the program was followed by its official take-off.

- *Development of at-risk-registers*

Each self-reported disease client had a medical history and examination done by a physician and then placed in the appropriate at-risk-register for the chronic disease s/he was diagnosed of.

- *Commencement of routine home visits and clinic consultation*

The targets of the home visit are shown in Table 2, except for those whose clinical condition would require more of such visits. The periodic home visits are backed up with phone calls or text messages as appropriate.

Potential comparative advantages of the SPHC-HFA model

A review of the SPHC-HFA model shows that it has distinct advantages over the T-PHC model, and it cuts across all the five foci of measures specified by Senn et al.[8] This is shown in Table 3.

Table 3: Comparison of the SPHC-HFA model and the T-PHC model in Nigeria*

SPHC-HFA Model	T-PHC Model
Measure 1: Integration of patient care (first contact, coordination, continuity)	
Model actively integrates facility- and community-based care with the CNMW providing strong linkage between clients seen at both level.	The T-PHC model focuses mainly on facility-based care, with very weak community-based aspects of PHC services. No designated community health worker assigned to provide linkage between the two levels in relations to patients' care.
Measure 2: Interpersonal care	
Integration of community- and facility-based care and use of evidence to drive PHC service delivery improve community access to interpersonal care. Also, the quality of providers-clients interaction is better assured through the all-time access to CNMW.	Interpersonal care is provided in the current T-PHC model largely through facility-based services, which leaves out a significant proportion of the population who may not use the health facilities. With no established accountability mechanisms, the quality of provider-client interactions is not assured and there are documented reports of abuse and violation of the rights of patients.
Measure 3: Comprehensiveness of care	
The integration of community- and facility-based care and the use of population data-informed at-risk registers improved the level of comprehensiveness of care. There is interaction among the different levels of care to promote optimal two-way referral.	The poor integration of care in this model and lack of at-risk register or mechanism to identify and monitor the health of individuals with chronic conditions, as well as lack of interaction among the different levels of care to promote optimal two-way referral, greatly undermines the comprehensiveness of care in the model.
Measure 4: Inter-professional relationship	
SPHC-HFA model featured the training of doctors and other stakeholders on the role of CNMW in PHC. The roles and responsibilities of the CNMW are also specified in writing and communicated to all stakeholders	Inter-professional rivalry is high within the T-PHC model and there is very little collaboration among the various groups of workers towards achieving the goal of PHC
Measure 5: Advocacy and community action	
Strong advocacy is a key approach used in the SPHC model, to secure high community participation and ownership, demonstrated via active mobilization of human and financial resources for key PHC activities.	Advocacy and community action is low in the T-PHC model, and communities are hardly committing significant level of funding or other resources in support of PHC activities.

*This measurement framework was adapted from Senn et al.[8]

DISCUSSION

PHC remains a critical national and global agenda. The poor health outcomes of the Nigerian

health system and the urgent need for improvement calls for the design of community alternative models of PHC delivery. As long ago as at Alma-Ata and Riga, PHC was universally adopted as the strategy for delivering basic health care to all community members. Health sector of any country without a functional PHC system is considered weak. Primary care (PC) everywhere is the same as primary medical care (PMC), or general medical practice and 'community' in the context of PMC refers to community-outreaching activities from the PMC centres rather than the total statutory community health care as required for PHC. In technologically advanced countries with no more natural communities or PMC-centered health systems at the base; and most developing countries with no PMC-based health systems as its first (entry-level) model of care, the term PC as a model of healthcare delivery is the closest to PHC.[9,11]

The four specific interventions of the SPHC-HFA model align with the key PHC principles of the Alma Ata Declaration and aim to address major gaps identified from the analysis of the country's current T-PHC model.

An undergirding philosophy of the SPHC-HFA model is enhancing system capacity for continued success and sustainability of PHC delivery through maximal community engagement and ownership.[15] According to Hall and Taylor (2000), the refusal of experts and politicians to accept the principle that communities should plan and implement their healthcare services is a key factor for the failure of PHCs across countries.[5] As demonstrated in the Okeigbo project, several opportunities exist for mobilizing and optimizing community engagement in the PHC agenda. This includes giving the community leaders attention and voice, e.g., at meetings, recruitment of CNMW, and mobilization of resources. This approach aligns with other studies that have demonstrated similar results.[12]

The CNMW also places at-risk-registers and reports health events (birth, death, marriage, divorce, etc., as the entire community is educated to bring those to her immediate notice in their community health interest). Engaging a CNMW for each political ward is the ideal model. However, this will be practically impossible in the Nigerian setting, as there are not enough nurse-midwives to assign one to each of the 9,565 political wards. This shortage is largely due to the migration of doctors and nurses abroad for better remuneration and working conditions. Nonetheless, this issue can be addressed by recruiting retired nurse-midwives who remain physically and mentally fit to serve as Community Nurse-Midwives (CNMW), as demonstrated in Okeigbo and previously suggested under Nigeria's midwives service scheme. Secondly, learning from the experience of Rwanda, other available community health workers can be engaged under the supervision of an experienced and overseeing LGA nurse-midwife and guided by standard operating procedures, government-approved standing orders, and other relevant existing policy guidelines to provide some basic services currently performed by the CNMW. These services may include individual nurses, but not

midwives, along with community nurse auxiliaries such as the Community Health Extension Workers (CHEW), certified community health workers by the government.[18] According to the 2016 National Health Policy, Nigeria has 5,986 Community Health Officers (CHOs), 42,938 CHEW and 28,458 JCHEW as of 2012.[1,19,20] Moreover, an up-grade training programme for the auxiliary workers to the status of full medical doctors for any promising CHOs and the status of full nurses/nurse-midwives for any promising CHEWs can be organized as happened in Nigeria before, for the products of the Yaba Medical School. The Leyte School in the Philippines reportedly did so as well.[21,22] In this way, the workforce needs for PHC in Nigeria can be addressed, and the PHC system can be better strengthened for effective delivery.

Nigeria's national guidelines stipulate that CHOs, CHEWs, and JCHEWs should spend 30%, 50%, and 90% of their time in the community, respectively, and the remainder at the health facility; however, that is not the case in practice.[21,23,24] According to Sidney Kark, integrating community and facility care is essential to ensure continuity of care and the application of evidence and epidemiologic skills.[23,25] Our SPHC-HFA model re-emphasizes the importance of integrated community and facility-based care as part of effective PHC service delivery.[26] The generation of robust baseline population-based data from the de jure census and household health survey, used for data-driven PHC delivery, monitoring, and evaluation, is a distinguishing feature of the SPHC-HFA model. Additionally, having a PHC design that facilitates the collection of comprehensive (community and facility-based) data is another hallmark of the SPHC model that is not found in the traditional PHC system country.

The SPHC-HFA model, through increased community leadership engagement and participation, significantly mobilized additional resources previously unattainable in the T-PHC model, enhanced equity of care through improved social inclusiveness, and strengthened PHC data quality through complete (community- and clinic-based) data collection. The possibility of additional resources from a properly engaged community is a panacea to the high out-of-pocket financing, dwindling and grossly inadequate government allocation, and donors' support for PHC delivery in the country.[27]

Figure 5 depicts a logic model of the transition dynamics of the key PHC principle-focused inputs of the project interventions into the expected project outcomes of a sustainable and effective PHC system. The specific project inputs provided the platform for the strengthening and entrenching of the fundamental principles of PHC identified as either lacking or grossly deficient in the traditional PHC system.

Overall, considering the comparative potentials and relative advantages of the SPHC-HFA model over the currently ongoing PHC system in the country, we strongly believe that the SPHC-HFA model holds promise for an assurance of a sustainable, integrated, and comprehensive PHC delivery.

This review paper is on the establishment of the SPHC-HFA model. An extensive system performance evaluation project would be most appropriate after the model has been operational for some time (i.e., in the second phase of the project). Nevertheless, the knowledge about the SPHC-HFA model presented in this review is evidence-based and sufficiently comprehensive to inform potential adopters' or adapters' decisions or to inspire further assessments.

Challenges

Challenges encountered during the data collection process include the unwillingness of a few community members to participate in the exercise, attributed to transferred aggression of the economic hardship of the time and the government's failure to ameliorate the suffering: the project being perceived as a government-funded project by some. This was addressed through the intervention of some community leaders. Another notable challenge was the initial cold acceptance and responses observed by the Officer-in-Charge of the PHC facility to the CNMW. The attention of the LGA MOH was drawn and was appropriately addressed.

CONCLUSION

The Alma Ata Declaration clearly articulates the principles for effective and sustainable PHC delivery. The Okeigbo SPHC-HFA model upholds the core principles of the Alma Ata declaration and demonstrates the relevance of strong community engagement in community participation and ownership of PHC delivery. It did so with the participatory cooperation of the local and state governments and other national agencies, such as the National Population Commission, with whom our work and data should be entirely usable and compatible.

Government agencies, health workers, and other relevant stakeholders of PHC need to be more conscious of the bottom-up approach and the power of the community and develop greater competency in working with the community to unleash its potential for a community-driven and sustainable PHC, especially in the face of increasing challenges of inadequate human and financial resources for effective PHC delivery.

The Okeigbo Ward 7 SPHC-HFA model provides a practical demonstration of a community-driven PHC model with the potential for sustainability of service delivery and presents the government and other stakeholders with a framework for possible adoption or adaptation of its best practices and lessons learned.

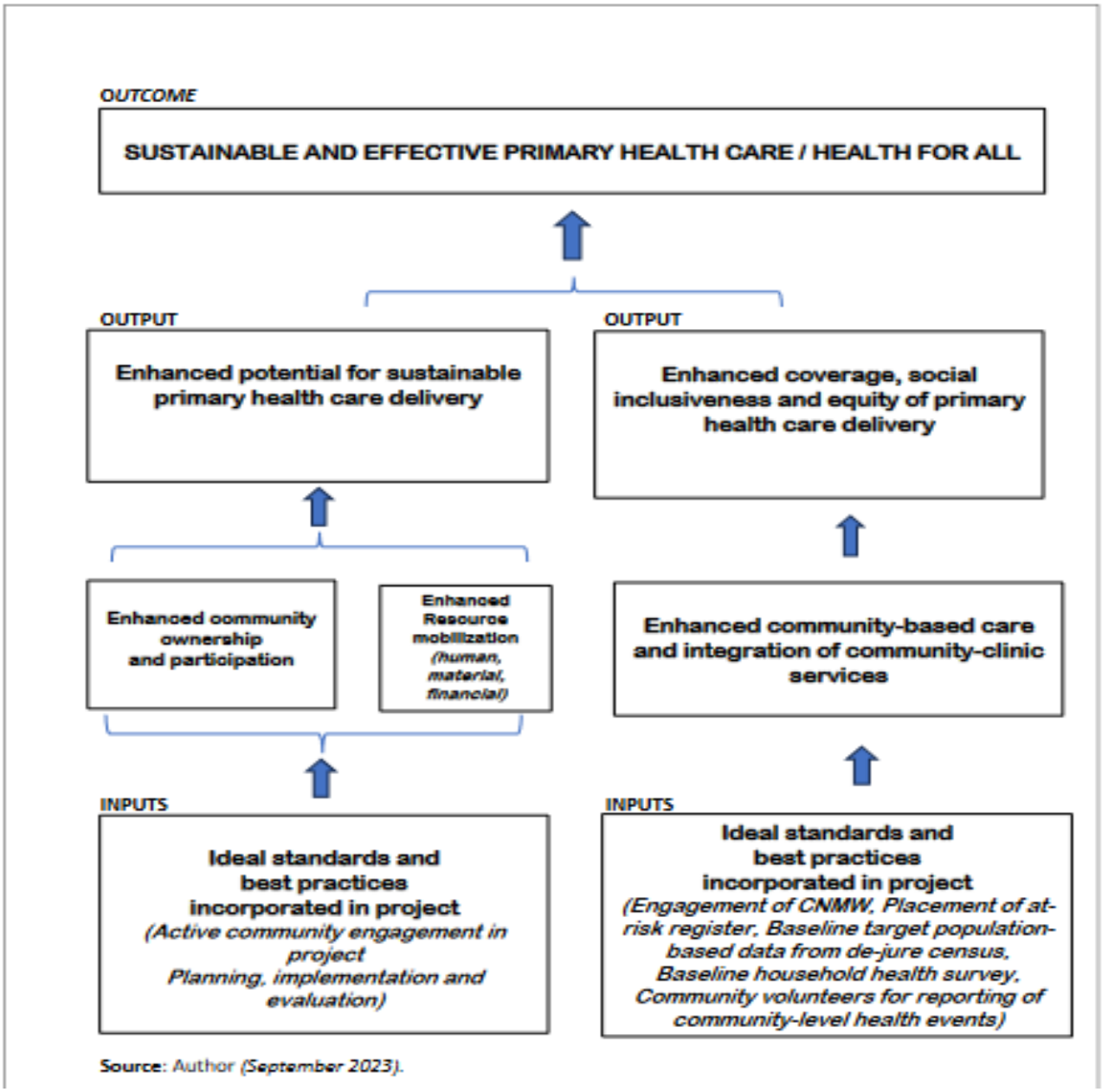

Fig. 5: The dynamics of transition of the project intervention inputs to project outcomes in the Okeigbo SPHC-HFA model

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Authors' contributions: MCA conceived and designed the project framework and led the

implementation with OOO and VOO, with technical inputs and participation of AOF, OWA, DOI, OAO and OFA at various stages. OOO and VOO drafted the manuscript, while AOF and MCA did a critical review of the draft manuscript. All authors reviewed and approved the final manuscript.

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Data availability: The information provided in this study is largely in the Department of Community Medicine of the University of Medical Sciences, Ondo. A part of it could be accessed on the university's website.

Disclaimer: The views expressed in this article are those of the authors and not an official position of the university.

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Fig. 2: At the official commissioning of the SPHC-HFA model programme in Okeigbo [2022]

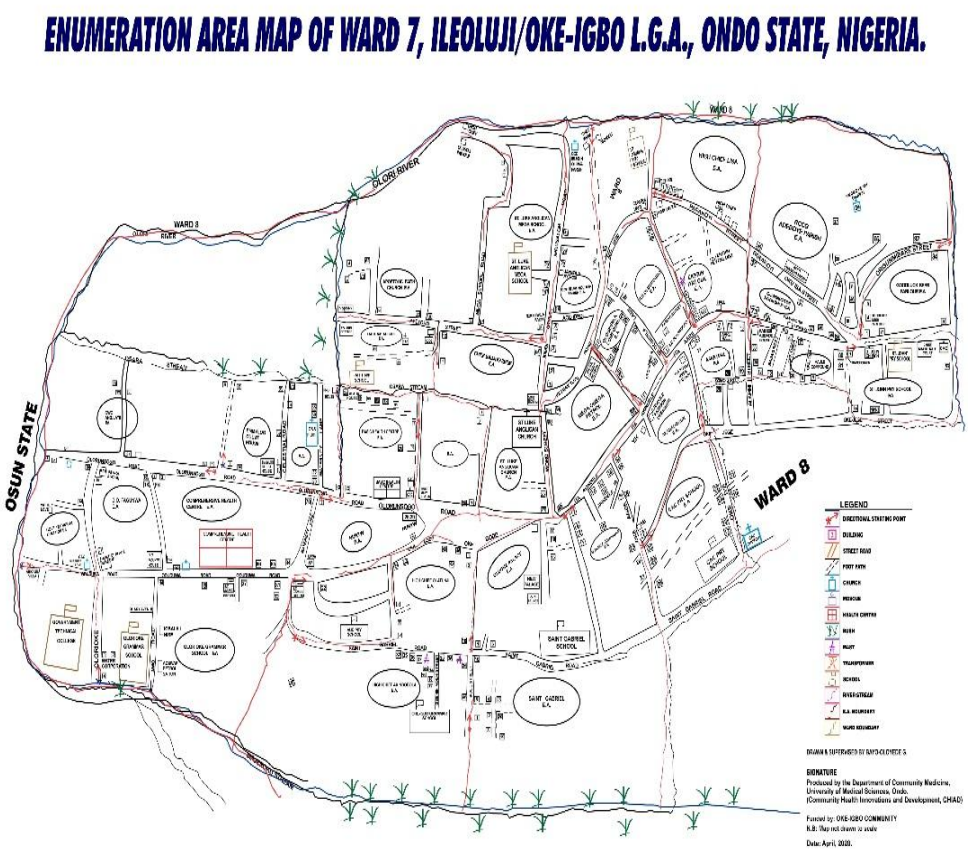

Fig. 3: Map of Okeigbo Ward 7 community showing the enumeration area demarcations