

From Episodic Medical Missions to Sustainable Primary Health Care Strengthening in Nigeria: Development and Scale-Up of a Diaspora Nurse-Led Adoption Model

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Abstract

Background: Primary Health Centers (PHCs) are essential to equitable access and Universal Health Coverage, yet many facilities in Nigeria have persistent gaps in infrastructure, equipment, workforce capacity, information systems, and service readiness. In response, the National Association of Nigerian Nurses in North America developed the Adopt-A-Primary Health Center Initiative, a diaspora nurse-led model that provides sustained support for locally governed facilities. **Objective:** To describe the development, implementation, and early reach of the initiative and assess its relevance as a potentially scalable population health strategy for strengthening primary health care in settings where community-level access to essential services remains constrained. **Methods:** This descriptive program report used health-systems-strengthening, quality-improvement, and population-health perspectives. Implementation included facility selection and baseline assessment, stakeholder consultation, SWOT analysis, phased rehabilitation, equipment procurement, workforce development, documentation and reporting support, telehealth where feasible, and sustainability planning. Diaspora nurses collaborated with PHC personnel, community leaders, local government authorities, and other stakeholders. **Results:** By 2025, 35 facilities had been assessed, of which 29 met the stipulated

application criteria and were adopted across nine states and three geopolitical zones. Renovation was completed at 26 adopted PHCs and in progress at three. Equipment was deployed according to facility-level needs assessments, and staff from all 29 adopted PHCs received initial training in environment of care, care coordination, data management, customer service, and infection prevention and control. Program records from pilot facilities documented 20,813 patient visits in 2022, demonstrating substantial service reach. **Conclusion:** The initiative demonstrates the feasibility of organizing diaspora nursing expertise around sustained support for locally governed PHCs. Its potential contribution lies in combining infrastructure improvement, workforce support, community partnership, and governance alignment. The initiative provides a replicable framework for further evaluation of diaspora-supported PHC strengthening and progress toward Universal Health Coverage in resource-constrained settings; its scalability and effectiveness remain to be established prospectively.

Keywords

Primary Health Care, Diaspora Nursing, Health Systems Strengthening, Nursing Leadership, Nigeria

1. Introduction

Primary health care is recognized globally as the foundation of equitable, accessible, and people-centered health systems and is essential for achieving Universal Health Coverage (UHC). The World Health Organization defines primary health care as a whole-of-society approach that integrates health promotion, disease prevention, treatment, rehabilitation, and palliative care; addresses broader determinants of health; and empowers individuals, families, and communities [1]. The 2018 Declaration of Astana reaffirmed primary health care as a cornerstone of sustainable health systems, UHC, and the health-related Sustainable Development Goals [2].

Strong primary health care systems are associated with better outcomes, greater equity, improved efficiency, and stronger continuity and coordination of care [1] [3] [4]. Evidence from low- and middle-income countries also identifies community involvement, accountable management, adequate resources, and quality-linked improvement strategies as important conditions for stronger Primary Health Centers (PHC) performance [5] [6]. Consequently, strengthening primary health centers has become a central strategy for expanding access to quality care while managing limited resources.

In Nigeria, PHCs serve as the first point of contact with the formal health system for many rural and underserved populations [7] [8]. National revitalization priorities emphasize functional infrastructure, an adequate and trained workforce, essential medicines and equipment, ward-based services, reliable power and wa-

ter, community engagement, and improved service utilization [7] [9].

Despite these efforts, substantial challenges remain. National facility assessments have documented gaps in essential drugs, medical equipment, power sources, and rural service readiness [10] [11]. Weak financing, under-resourced community health workers, fragmented systems, and insufficient accountability can further constrain comprehensive, people-centered primary health care in low- and middle-income settings [6] [12]-[14]. These limitations can reduce service readiness, continuity, utilization, and public confidence.

Community trust and participation are important influences on healthcare-seeking and PHC utilization [8] [15]. A 2025 quasi-experimental study in Bayelsa State found that strengthened ward development committees, accompanied by funding, commodities, outreach, workforce support, and technical assistance, were followed by substantial increases in family planning use, facility delivery, antenatal attendance, and postnatal care [15]. These findings support approaches that combine facility investment with active community governance and engagement.

An emerging area of global-health practice is the contribution of diaspora health professionals to health-system strengthening. African nurse diaspora members have been identified as strategic stakeholders who can mobilize local and global partners, engage communities in preventive care, and build trust through professional and cultural connections [16] [17]. This creates opportunities for mentorship, education, technology transfer, advocacy, research collaboration, and institutional capacity building beyond short-term missions [16] [17].

The National Association of Nigerian Nurses in North America (NANNNA) is one such organization. Through its “Take Me to Your Village” initiative, NANNNA members conducted community health missions that provided health education, preventive screenings, treatment support, and medication distribution in underserved communities across multiple Nigerian states. Although these missions addressed immediate community needs, organizational leaders recognized that sustainable improvements in community health required a longer-term approach focused on strengthening existing PHC infrastructure and systems rather than relying solely on episodic outreach activities.

To address this need, NANNNA developed the Adopt-A-Primary Health Center (Adopt-A-PHC) Initiative, a diaspora nurse-led model that links professional volunteerism with sustainable health system strengthening. The initiative supports selected PHCs through facility assessment, infrastructure improvement, equipment provision, workforce development, community engagement, health information strengthening, and sustainability planning. Rather than creating parallel healthcare structures, the model seeks to complement government-led PHC revitalization efforts by strengthening locally governed facilities through collaboration among diaspora nurses, health workers, community leaders, local governments, and other stakeholders [7] [9] [16] [17].

This article describes the development, implementation, and expansion of the Adopt-A-PHC Initiative and examines its relevance as a potentially scalable nurs-

ing-led model for strengthening primary health care in Nigeria. The program's conceptual framework, implementation approach, geographic reach, and lessons learned are presented while exploring the potential role of diaspora nursing organizations in advancing PHC strengthening and progress toward Universal Health Coverage in resource-constrained settings [1] [2] [16] [17].

2. Conceptual Framework and Program Description

2.1. Conceptual Framework

The Adopt-A-Primary Health Center Initiative was conceptualized as a health-systems-strengthening intervention grounded in three complementary perspectives: the World Health Organization's PHC framework, health-systems-strengthening theory, and community partnership and local ownership. Together, these perspectives connect integrated services, multisectoral action, empowered communities, accountable management, workforce support, and adequate resources with progress toward UHC.

The WHO identifies primary health care as a comprehensive approach that combines integrated health services, multisectoral action, and empowered individuals and communities to improve health outcomes and reduce inequities [1]. The Declaration of Astana further emphasizes that sustainable primary health care systems require accessible, high-quality, community-centered services that are responsive to local needs [2]. These principles informed the design of the Adopt-A-PHC Initiative, which seeks to strengthen existing public PHCs rather than establish parallel service structures.

The initiative is also informed by health-systems-strengthening literature, which recognizes that outcomes depend on interacting components such as infrastructure, workforce, service delivery, information systems, financing, leadership, governance, and community participation [18] [19]. The Primary Health Care Performance Initiative framework links financing, workforce, and supply inputs with first-contact access, comprehensiveness, coordination, continuity, and person-centeredness. In Nigeria, service-readiness evidence has identified persistent deficits in drugs, equipment, power, and rural access. The Adopt-A-PHC model therefore combines facility rehabilitation with provider development, documentation improvement, stakeholder engagement, and sustainability planning.

Community partnership represents the third pillar of the conceptual framework. Community participation has been recognized as a core PHC principle since the Alma-Ata and Astana declarations [1] [2]. Evidence from Nigeria suggests that active engagement of community leaders, ward development committees, local governments, and healthcare providers improves accountability, increases utilization of services, and strengthens trust in health facilities [8] [15]. Consequently, the Adopt-A-PHC Initiative prioritizes stakeholder engagement and local ownership at every stage of implementation.

The program's theory of change assumes that strategic investments in infrastructure, workforce development, essential equipment, health information systems, and

community partnerships will improve facility functionality and service readiness. Improved readiness is expected to enhance provider performance, strengthen continuity of care, increase utilization of PHC services, and ultimately contribute to improved population health outcomes and stronger community health systems. This framework guided both program design and implementation across adopted facilities.

2.2. Program Description

Evolution from Medical Missions to Facility Adoption

The Adopt-A-PHC Initiative emerged from the experiences of the National Association of Nigerian Nurses in North America (NANNNA) through its “Take Me to Your Village” rural health outreach program. These missions provided preventive health screenings, health education, medication distribution, and basic treatment support in underserved communities across several Nigerian states. While these activities addressed immediate primary health care needs, organizational leaders observed that many communities continued to face significant barriers related to facility readiness, staffing limitations, inadequate equipment, and weak infrastructure. These observations highlighted the limitations of episodic outreach as a strategy for achieving sustained health system improvements.

To address these challenges, NANNNA developed the Adopt-A-PHC Initiative as a long-term strategy focused on strengthening existing public PHCs through sustained engagement rather than periodic service delivery. The initiative was designed to complement government-led PHC revitalization efforts by mobilizing diaspora nursing expertise, professional networks, financial resources, and community partnerships to support locally governed healthcare facilities.

Core Components of the Adopt-A-PHC Model

The Adopt-A-PHC model comprises five mutually reinforcing components: infrastructure and environment-of-care improvement; workforce development and capacity building; equipment and service-readiness strengthening; health information and documentation systems; and community engagement and partnership development. These components guided facility assessment, intervention planning, implementation, monitoring, and sustainability activities across participating PHCs.

1. Infrastructure and Environment of Care Improvement

Facility functionality is a prerequisite for effective service delivery. Baseline assessments conducted during implementation frequently identified deteriorating buildings, inadequate sanitation facilities, damaged roofing, insufficient clinical space, unreliable electricity, and limited water access. Infrastructure interventions therefore focused on renovation and rehabilitation of existing facilities to improve safety, accessibility, and quality of care. Activities included roof replacement, ceiling repairs, drainage improvement, painting, renovation of labor and maternity wards, installation of doors and windows, and general facility beautification. These improvements align with national PHC revitalization pri-

orities emphasizing functional infrastructure as a key component of service readiness [7] [9].

2. Workforce Development and Capacity Building

Health worker competence is central to PHC performance and quality service delivery [6]. Capacity-building activities were integrated throughout implementation to strengthen provider knowledge, clinical skills, patient education practices, documentation quality, and community engagement. Educational activities included mentoring, in-service training, clinical consultation, and support for quality improvement initiatives. The focus on workforce development reflects evidence demonstrating that infrastructure improvements alone are insufficient to improve outcomes without corresponding investment in human resources [6] [12].

3. Equipment and Service Readiness Strengthening

Many adopted facilities lacked basic equipment required for maternal and child health services, chronic disease management, and routine clinical care. The initiative therefore prioritized procurement and distribution of essential equipment, including delivery beds, fetal monitors, blood pressure devices, infant weighing scales, suction machines, generators, dressing trolleys, and refrigeration units. Equipment support was tailored to facility needs identified during baseline assessments and aligned with service delivery priorities established by local stakeholders.

4. Health Information and Documentation Systems

Reliable data systems are essential for quality improvement, accountability, and continuity of care. Consistent with health systems strengthening recommendations, the initiative incorporated support for documentation practices, patient record management, reporting systems, referral tracking, and monitoring activities [6]. Strengthening health information systems was viewed as critical for supporting both clinical decision-making and future evaluation efforts.

5. Community Engagement and Partnership Development

Community participation was embedded throughout implementation. The initiative engaged community leaders, local government officials, PHC managers, healthcare workers, and community representatives during facility assessment, planning, implementation, and sustainability activities. This approach reflects growing evidence that stakeholder participation enhances program acceptability, accountability, and long-term sustainability [8] [15]. Through these partnerships, community members contributed to identifying priorities, mobilizing resources, and supporting facility ownership.

NANNNA operationalized these five components through a structured application and adoption process designed to promote facility readiness, stakeholder engagement, accountability, local ownership, and sustainability. The process translates established principles of primary health care, health systems strengthening, and community participation into facility-level selection, planning, implementation, monitoring, and continuing partnership [1] [2] [6] [15] [19].

2.3. Application and Adoption Process

The National Association of Nigerian Nurses in North America established a structured process for translating the Adopt-A-PHC model into facility-level action. Interested members identify an existing government-owned primary health center within a community of interest and begin consultation with facility leadership, community representatives, and relevant government stakeholders. NANNNA provides US\$6,000 toward each PHC adoption. Adopting members and participating communities contribute the additional funds needed to complete the project; depending on the extent of work identified through the facility assessment, these additional costs may be as high as US\$10,000. The process is informed by principles of health-system strengthening, community participation, and sustainable primary health care development [1] [2] [6] [15]-[17] [19].

The application process consists of the following steps:

1. Facility Identification and Stakeholder Engagement

Prospective adopters identify an eligible government-owned primary health center and engage key stakeholders, including facility leadership, community leaders, community development committees, and relevant local or state government authorities, to establish interest, commitment, and readiness for participation. Active stakeholder involvement is recognized as an important contributor to sustainable primary health care strengthening and accountability [8] [15].

2. Needs Assessment and Documentation

Applicants conduct a facility and community needs assessment to identify infrastructure deficiencies, equipment gaps, workforce needs, service-delivery priorities, and opportunities for improvement. The assessment includes current photographs documenting the condition of the facility. Structured assessment processes are consistent with approaches that identify service-readiness gaps and support context-specific interventions [6] [10] [11].

3. Submission of Application Package

Applicants submit a completed Adopt-A-PHC Initiative application together with supporting documentation, including the facility needs assessment, current photographs, evidence of stakeholder commitment, and a letter of support from the relevant NANNNA chapter president.

4. Review and Approval

The NANNNA PHC Review Committee evaluates applications based on facility eligibility, community need, stakeholder engagement, feasibility of implementation, and potential for sustainability. Priority is given to facilities serving underserved populations and demonstrating strong local commitment and partnership support.

5. Implementation Planning

Following approval, applicants collaborate with facility leadership, community representatives, and government stakeholders to develop an implementation plan outlining project objectives, intervention priorities, timelines, budgets, monitoring mechanisms, and sustainability strategies. Collaborative planning is consistent

with recommendations for strengthening primary health care through governance, community participation, and accountability [1] [2] [6] [19].

6. Project Implementation and Monitoring

Adoption activities are implemented in phases and may include infrastructure rehabilitation, equipment procurement, workforce development, health information strengthening, and community engagement activities. Progress is monitored through routine reporting, stakeholder communication, and submission of before, during, and after project photographs. Monitoring and continuous quality improvement processes are recognized components of health systems strengthening initiatives [6] [19].

7. Ongoing Commitment and Sustainability

Adopting members are expected to maintain an active partnership with the facility for a minimum of two years. At least one project lead conducts an annual site visit to support implementation, monitor progress, strengthen stakeholder relationships, and facilitate sustainability planning. Periodic progress reports are submitted to the NANNNA PHC Review Committee throughout the implementation period. Emphasis on long-term engagement and local ownership is consistent with evidence supporting sustainable approaches to health systems strengthening and diaspora engagement in health development [16] [17].

Eligibility Criteria for PHC Adoption

To qualify for adoption, a facility must:

- Be an existing government-owned primary health center operating within the Local Government PHC system [7] [9].
- Have government-assigned health personnel [7] [9].
- Demonstrate commitment from community leaders and relevant local or state government authorities [8] [15].
- Participate in facility assessment, planning, monitoring, and sustainability activities [6] [19].
- Support ongoing reporting, stakeholder engagement, and implementation oversight [6] [19].

3. Methods

This descriptive program report summarizes the design, implementation, reach, and early outputs of a practice-based health-systems-strengthening initiative. The program used a participatory approach that combined diaspora nursing expertise with local stakeholder engagement and existing government PHC structures. Reporting draws on organizational implementation records, facility updates, stakeholder reports, and available service-utilization information. Because the report was not designed as a controlled study and includes no comparison group or pre-intervention outcome series, it describes feasibility and reach but does not estimate causal effects.

Program records and implementation report available through 2025 were reviewed. The participating PHC was the unit of analysis. Facility-level information

was summarized across implementation phases. Reporting periods differed by outcome: adoption, renovation, equipment, and training status were summarized through 2025, whereas the service-reach total was limited to complete records from contributing pilot PHCs in 2022.

Operational definitions. A PHC was classified as *supported* when program records documented any NANNNA-facilitated technical, material, financial, training, mentoring, documentation, telehealth, or stakeholder-engagement assistance, irrespective of formal adoption status. A PHC was classified as *adopted* after it met the eligibility criteria; completed a baseline needs assessment; documented facility, community, government, and NANNNA chapter support; received PHC Review Committee approval; developed implementation and sustainability plans; entered a minimum two-year partnership with routine progress reporting and at least one annual site visit by a project lead; and began delivery of the minimum intervention package. That package comprised baseline assessment and stakeholder engagement, at least one assessment-prioritized activity in each of five domains—infrastructure and environment of care, equipment and service readiness, workforce development, health information and documentation, and community partnership—and documented monitoring and sustainability arrangements. A PHC was classified as *completed* when records verified delivery of the approved intervention plan and minimum package, submission of required progress and before-and-after documentation, confirmation that planned equipment and infrastructure activities were functional or in use, and transition to local maintenance and oversight. Categories were sequential: completed PHCs were also adopted and supported; supported PHCs were not necessarily adopted; and adopted PHCs could remain under implementation.

Data sources, contributing facilities, and outcome ascertainment. Adoption and geographic reach were ascertained from Adopt-A-PHC applications, PHC Review Committee approval records, facility master lists, implementation plans, and project-status reports. These outcomes included the 29 PHCs listed in **Table A1** and were summarized by recorded state and geopolitical zone. Infrastructure outcomes were ascertained from baseline and follow-up assessments, approved scopes of work, completion and expenditure records, site-visit notes, and dated photographs. Equipment outcomes were ascertained from needs assessments, procurement and delivery records, inventories, installation or handover documents, and records confirming receipt and use. Workforce activities were documented in training agendas, attendance registers, facilitator reports, mentorship or telehealth logs, and reports from project leads and PHC managers. Community engagement was documented in meeting minutes, attendance lists, Ward Development Committee or community-leader reports, letters of support, government correspondence, outreach reports, and project updates. Completion and sustainability status were determined from implementation and maintenance plans, progress and completion reports, site-visit records, stakeholder confirmation, and evidence that planned infrastructure and equipment activities had been delivered and trans-

ferred to local oversight.

Service-utilization records. The 2022 service-reach outcome comprised patient visits reported by pilot PHCs in Ogun, Edo, Abia, and Imo States with complete utilization records for that year. Visits were extracted from outpatient or daily attendance registers and monthly facility service-summary reports. When a facility summary already incorporated service-specific registers, antenatal, maternity, immunization, chronic-disease, and other clinic encounters were not added separately. The program archive identified contributing facilities by name and state, and the facility-level list used to calculate the total was retained with the extraction file rather than inferred from the later 29-facility roster. Thus, the 20,813 visits represent the contributing pilot PHCs only, not all PHCs supported by 2025.

Data extraction, checking, and aggregation. Two authors independently abstracted facility-level data into a structured form capturing facility name, local government area, state, geopolitical zone, reporting period, adoption status, intervention domain, source document, and reported count and completion status. Facility names and locations were standardized against **Table A1**. Duplicate submissions for the same facility, reporting period, and activity were identified using facility, date, and activity descriptors and counted once. Extracted values were verified against source records and, when multiple sources were available, cross-checked across applications, approval records, progress reports, inventories, photographs, registers, and stakeholder reports. Discrepancies, missing periods, implausible values, and inconsistencies between narrative and numeric reports were referred to the relevant project lead or facility contact. Values were included only after reconciliation; unresolved values were treated as unavailable, were not imputed, and were excluded from the relevant denominator or summary. Facility counts were summed by state and geopolitical zone, and monthly service totals were summed across contributing pilot PHCs to obtain the annual visit total. Qualitative stakeholder statements were grouped by implementation domain and reported as perceptions rather than independently measured outcomes. No patient-level records or identifiers were extracted.

The intervention was guided by a conceptual framework integrating WHO primary health care principles, health systems strengthening theory, and community partnership approaches. The framework informed facility assessment, intervention planning, implementation, monitoring, and sustainability activities.

Operational Model

Implementation followed a structured sequence beginning with facility identification and assessment. Facilities were selected based on community need, service relevance, leadership readiness, accessibility, and opportunities for sustained collaboration. Following selection, baseline assessments were conducted to identify infrastructure gaps, equipment needs, workforce challenges, documentation practices, and service delivery priorities. Stakeholder consultations and SWOT analyses were subsequently used to guide planning and resource allocation.

Implementation occurred through phased interventions that allowed projects

to align with available resources and local priorities. Early phases typically focused on infrastructure rehabilitation and environmental improvements, while later phases emphasized equipment provision, capacity building, documentation enhancement, and sustainability planning. Continuous communication among NANNNA members, facility leadership, community stakeholders, and government partners supported implementation and monitoring efforts.

The initiative also incorporated telehealth and remote mentorship where feasible, enabling diaspora nurses to provide ongoing professional support to local healthcare providers. This approach extended engagement beyond periodic site visits and promoted continuity of professional collaboration.

Logic Model

The logic model underlying the Adopt-A-PHC Initiative is presented in **Figure 1**. Inputs—including diaspora nursing expertise, financial resources, community partnerships, government collaboration, and PHC leadership engagement—support facility assessment, infrastructure rehabilitation, workforce development, community engagement, and information-system strengthening. These activities produce implementation outputs such as adopted and renovated facilities, deployed equipment, provider-support activities, and strengthened documentation processes. Expected outcomes include improved facility functionality, provider performance, service readiness, community trust, and continuity of care; these outcomes require prospective evaluation. Longer-term effects on PHC systems, population health, and Universal Health Coverage remain hypothesized rather than established.

INPUTS
NANNNA nursing expertise; volunteer nurse leaders; member contributions; Health Carousel Foundation support; local government and community partnerships; PHC leadership engagement; telehealth and technology resources.
ACTIVITIES
Facility assessments; stakeholder engagement; SWOT analysis; infrastructure renovation; equipment procurement; provider training and mentoring; data-system strengthening; community outreach and health education; telehealth support.
OUTPUTS
PHCs adopted; facilities renovated; equipment supplied; health workers trained; community meetings conducted; documentation tools implemented; telehealth consultations completed; partnership agreements established.
SHORT-TERM OUTCOMES (1–2 YEARS)
Improved facility functionality; enhanced provider knowledge; better equipment availability; improved documentation practices; increased community awareness; strengthened monitoring capacity.
INTERMEDIATE OUTCOMES (3–5 YEARS)
Increased PHC utilization; improved continuity of care; enhanced service readiness; greater community trust; improved quality of care; stronger accountability systems; increased preventive service uptake.
LONG-TERM IMPACT
Stronger primary health care systems; sustainable community-based care; improved population health outcomes; reduced preventable morbidity; enhanced health equity; resilient local health systems; progress toward Universal Health Coverage.

Figure 1. Logic Model for the NANNNA Adopt-A-PHC Initiative: A diaspora nurse-led framework for strengthening primary health care in Nigeria.

Setting

The Adopt-A-PHC Initiative was implemented in public primary health centers located across multiple states in Nigeria. The program was initially piloted in Abia, Edo, Imo, and Ogun States and subsequently expanded to Akwa Ibom, Anambra, Ekiti, Ondo, and Osun States. By 2025, the initiative had adopted 29 PHCs distributed across three geopolitical zones of Nigeria.

Most participating facilities served rural or semi-urban communities and represented the primary point of access to healthcare services for local populations. Facilities varied considerably in infrastructure condition, staffing levels, equipment availability, documentation practices, and service readiness.

Facility Selection

Facility selection was based on community health needs, service relevance, leadership readiness, accessibility, and opportunities for long-term partnership. Candidate facilities were identified through NANNNA health missions, member recommendations, relationships with community leaders, and consultations with local government authorities. Priority was given to facilities serving underserved populations and demonstrating willingness to participate in collaborative improvement efforts.

The initiative focused on strengthening existing public PHCs rather than creating parallel healthcare delivery structures, consistent with national PHC revitalization priorities and health systems strengthening principles.

Baseline Assessment

Following facility selection, baseline assessments were conducted to identify strengths, deficiencies, and priority areas for intervention. Assessments included direct observation of facility infrastructure and review of available clinical and non-clinical resources. Areas assessed included:

- Physical condition of buildings and grounds
- Water and sanitation facilities
- Availability of electricity and power sources
- Equipment and supply inventories
- Maternal and child health infrastructure
- Documentation and reporting practices
- Referral systems
- Workforce capacity and training needs
- Community engagement mechanisms

Assessment findings were supplemented by consultations with PHC staff, facility leadership, community representatives, and local government officials to ensure interventions reflected local priorities and operational realities.

Stakeholder Engagement

Stakeholder engagement was a central component of program implementation. NANNNA representatives collaborated with PHC managers, nurses, community health workers, community leaders, ward development committees, local government authorities, and other relevant stakeholders throughout project implemen-

tation.

These consultations served multiple purposes, including:

- Identification of priority facility needs
- Establishment of local ownership and accountability
- Clarification of stakeholder roles and responsibilities
- Development of sustainability plans
- Alignment with local and governmental priorities

This participatory approach was intended to promote community ownership, support implementation, and enhance the sustainability of interventions.

Planning and Prioritization

Assessment findings were reviewed through a structured planning process that incorporated SWOT (Strengths, Weaknesses, Opportunities, and Threats) analyses. The SWOT framework was used to identify internal and external factors affecting facility performance and to prioritize interventions based on feasibility, stakeholder priorities, anticipated impact, and available resources.

Planning activities included development of renovation priorities, equipment procurement plans, training needs assessments, budgeting, identification of funding sources, and implementation timelines. Intervention plans were developed collaboratively to ensure alignment with facility needs and stakeholder expectations.

Implementation

Intervention Components

Implementation used five integrated domains: infrastructure strengthening, equipment support, workforce development, health-information strengthening, and community engagement. The Methods section describes how each domain was delivered; program reach and observed outputs are reported in the Results section.

Infrastructure Strengthening

Infrastructure improvement represented the initial phase of implementation in most facilities. Renovations were designed to improve the safety, functionality, and usability of healthcare environments. Depending on facility needs, interventions included:

- Roof replacement and repairs
- Ceiling rehabilitation
- Floor repairs
- Painting and beautification
- Drainage improvement
- Window and door replacement
- Security enhancements
- Renovation of labor and maternity wards
- Sanitation improvements

The scope of renovations varied according to baseline assessment findings and available funding.

Equipment Procurement and Facility Readiness

To improve service readiness, participating facilities received essential clinical and operational equipment identified through baseline assessments. Equipment support was tailored to local facility needs and frequently included:

- Delivery beds
- Infant weighing scales
- Fetal monitoring devices
- Blood pressure monitors
- Suction machines
- Delivery kits
- Refrigerators
- Generators
- Dressing trolleys
- Drip stands
- Storage equipment and clinical furnishings

Equipment acquisition was intended to support maternal and child health services, chronic disease management, preventive care, and routine clinical activities.

Workforce Development

Capacity-building activities were integrated throughout implementation to support healthcare providers and strengthen service delivery. Educational activities included:

- Clinical mentoring
- Health education training
- Quality improvement support
- Documentation and reporting training
- Patient communication and counseling support
- Maternal and child health education
- Chronic disease screening and follow-up guidance

The workforce development strategy reflected the program's emphasis on strengthening human resources alongside infrastructure investment.

Health Information Strengthening

Recognizing the importance of data systems for accountability and quality improvement, the initiative supported documentation and reporting practices within participating facilities. Efforts focused on:

- Improving clinical documentation
- Strengthening patient record management
- Enhancing reporting processes
- Supporting referral tracking
- Promoting data use for quality improvement activities

Where feasible, telehealth and communication technologies were used to facilitate ongoing mentorship and support from diaspora nurse leaders.

Community Engagement and Partnership Development

Community engagement activities were embedded throughout implementation. Stakeholders participated in project planning, monitoring, implementation,

and sustainability efforts. Community outreach activities included health education sessions, stakeholder meetings, public awareness campaigns, and collaboration with traditional and community leaders.

This approach sought to strengthen trust between facilities and communities while fostering local ownership of PHC improvement efforts.

Monitoring and Sustainability

Program monitoring relied on routine communication with facility leadership, stakeholder reports, implementation documentation, and periodic progress updates. Monitoring activities focused primarily on implementation outputs, including completion of renovations, equipment deployment, training activities, community engagement efforts, and facility utilization information where available.

To enhance sustainability, NANNNA incorporated ongoing stakeholder engagement, workforce support, community participation, and partnership development into implementation activities. Sustainability planning emphasized local ownership, continued government involvement, facility maintenance, and integration of improvements within existing PHC governance structures.

4. Results

Program Expansion and Geographic Reach

The Adopt-A-Primary Health Center Initiative expanded from an initial pilot in four Nigerian states to a multi-state primary health care strengthening program spanning three geopolitical zones. By 2025, the initiative had adopted 29 PHCs across nine states: Abia, Akwa Ibom, Anambra, Edo, Ekiti, Imo, Ogun, Ondo, and Osun. This expansion documents the program's geographic reach and the participation of diaspora nurse leaders, community stakeholders, and government partners in facility-strengthening activities.

Of the 35 facilities assessed, 29 met the stipulated application criteria and were formally adopted. At the time of reporting, renovation had been completed at 26 adopted PHCs and remained in progress at three. Each adopted facility received equipment selected according to needs identified through its baseline assessment. Staff from all 29 adopted PHCs also completed initial training in environment of care, care coordination, data management, customer service, and infection prevention and control.

The 26 completed PHCs were commissioned by the relevant government authorities, which affirmed their commitment to sustaining the facility improvements.

The initiative was implemented across diverse geographic and administrative contexts using a common implementation framework. The largest concentration of adopted facilities was in the South-East geopolitical zone ($n = 13$), followed by the South-West ($n = 9$) and South-South ($n = 7$) (**Table 1**); the state-level distribution is shown in **Table 2**. Because facilities were purposively selected and represented only three of Nigeria's six geopolitical zones, this distribution describes program reach rather than national coverage.

Table 1. Distribution of adopted primary health centers by geopolitical zone.

Geopolitical zone	Number of PHCs
South-East	13
South-West	9
South-South	7
Total	29

Table 2. Distribution of adopted primary health centers by state.

State	Number of PHCs
Edo	6
Abia	4
Imo	5
Anambra	4
Ogun	4
Ekiti	2
Osun	2
Akwa Ibom	1
Ondo	1
Total	29

Infrastructure Strengthening Outcomes

Baseline assessments conducted across participating facilities identified deficits in physical infrastructure that affected service delivery, patient experience, and facility functionality. Common deficiencies included deteriorating roofs and ceilings, damaged floors, poor drainage systems, inadequate sanitation facilities, deteriorated labor wards, and insufficient clinical space.

Infrastructure interventions focused on creating safer and more functional care environments. Renovation activities included roof replacement, ceiling rehabilitation, repainting, installation of windows and doors, floor repairs, drainage improvements, compound beautification, security enhancements, and renovation of maternity and labor wards. These interventions were implemented according to locally identified priorities and available resources.

Among completed projects, several facilities underwent substantial physical transformation intended to improve facility appearance and operational readiness. Local stakeholder reports associated these changes with greater community confidence and continued PHC use; however, these perceptions were not assessed with standardized measures.

Equipment Support and Service Readiness

To improve service readiness and strengthen routine service delivery, the initiative supplied a range of essential clinical and operational equipment to participating facilities. Equipment support was informed by baseline assessments and adapted to local clinical needs.

Commonly provided items included:

- Delivery beds
- Infant weighing scales
- Fetal monitoring equipment
- Blood pressure monitors
- Suction machines
- Delivery kits
- Dressing trolleys
- Refrigerators
- Generators
- Drip stands
- Clinical storage units
- Bedside lockers and patient linens

These resources were intended to support maternal and child health services, chronic disease screening and management, infection prevention activities, and routine outpatient care. Equipment provision complemented the infrastructure improvements and expanded the clinical resources available at participating facilities.

Workforce Development and Capacity Building

Capacity-building activities were incorporated throughout implementation to strengthen the knowledge and skills of local health workers. Training and mentorship activities focused on patient education, chronic disease prevention and management, maternal and child health services, infection prevention, documentation practices, and quality improvement processes.

In addition to formal educational activities, diaspora nurse leaders provided ongoing professional support through consultation, mentoring, and collaboration with PHC staff. Telehealth and remote communication approaches were used where feasible to support continuity of engagement and reinforce quality improvement efforts.

Although standardized competency assessments were not conducted across all sites, implementation reports indicated strong participation from local healthcare providers and consistent engagement in capacity-building activities.

Community Engagement and Partnership Development

Stakeholder engagement remained a central feature of program implementation. Across participating sites, implementation activities involved consultation and collaboration with:

- PHC leadership teams
- Nurses and community health workers
- Community leaders
- Traditional leaders
- Ward Development Committees
- Local government authorities
- Community representatives

These partnerships contributed to priority setting, project planning, implementation oversight, and sustainability planning. Community participation also facilitated local ownership and strengthened relationships between healthcare facilities and the populations they served.

The initiative illustrates how community partnership can be integrated into facility-strengthening activities rather than treated as a separate or downstream component.

Case Example: Italapo Primary Health Center

The implementation experience at Italapo PHC in Ogun State illustrates the practical application of the Adopt-A-PHC model. Following stakeholder consultation and approval from appropriate authorities, infrastructure improvements were implemented in phases. Phase 1 focused on rehabilitation of roofs, ceilings, floors, drainage systems, gates, windows, doors, labor wards, female wards, and general facility beautification. Phase 2 focused on procurement and installation of clinical equipment and supplies.

The project was completed at an estimated cost of approximately US\$10,000, supported through NANNNA member contributions. Sustainability planning included continued engagement with facility leadership, local government authorities, PHC boards, and community stakeholders.

The SWOT analysis conducted during planning identified strong leadership communication and stakeholder engagement as key facilitators of implementation, while infrastructural deterioration and evidence-based practice knowledge gaps represented important barriers. Opportunities included restoration of clinical services and improved community engagement, whereas leadership turnover was recognized as a potential threat to sustainability.

Service Reach

Program records from pilot facilities in Ogun, Edo, Abia, and Imo States documented 20,813 patient visits in 2022.

The reported service volume illustrates the role of participating PHCs as platforms for preventive, promotive, maternal-child, chronic disease, and routine outpatient services in underserved communities. Because no baseline or comparison data were available, the volume should not be attributed to the initiative.

Implementation Monitoring and Sustainability

Program monitoring focused primarily on implementation outputs rather than causal outcome evaluation. Monitoring activities included documentation of completed renovations, equipment deployment, provider support activities, stakeholder engagement efforts, facility updates, and service utilization information where available.

Sustainability efforts emphasized local ownership, continuing stakeholder engagement, workforce support, collaboration with government authorities, and integration of improvements into existing PHC operations. The program's transition from short-term outreach missions to long-term facility adoption represents a key implementation outcome and illustrates the feasibility of sustained diaspora

engagement in community health system strengthening.

Summary of Key Results

Overall, the Adopt-A-PHC Initiative achieved:

- Assessment of 35 facilities, with 29 meeting the stipulated application criteria and being adopted across nine states and three geopolitical zones.
- Completion of renovation at 26 adopted PHCs, with renovation in progress at three.
- Provision of essential clinical equipment to participating facilities.
- Initial training for staff from all 29 adopted PHCs in environment of care, care coordination, data management, customer service, and infection prevention and control, followed by ongoing workforce development and mentorship activities.
- Strong stakeholder and community engagement.
- Documentation of 20,813 patient visits in pilot facilities during 2022.
- Establishment of a diaspora nurse-led framework with potential for further evaluation and expansion.

Together, these findings document the operational reach and implementation feasibility of a diaspora nurse-led approach to PHC revitalization and health-systems strengthening across the participating sites. They do not establish effectiveness, causal impact, or generalizability beyond the selected facilities.

5. Discussion

The Adopt-A-PHC Initiative shows that a diaspora nursing organization can coordinate sustained support for public PHCs across multiple jurisdictions. Its principal contribution is operational: it links facility rehabilitation, equipment provision, workforce support, information-system improvement, and community partnership within a continuing adoption relationship. The observed expansion and service reach support the feasibility of the model and its potential relevance to PHC revitalization and progress toward Universal Health Coverage; prospective evaluation is needed to establish scalability and effectiveness.

5.1. Advancing Primary Health Care through Health Systems Strengthening

The Adopt-A-PHC Initiative aligns with PHC and health-systems-strengthening frameworks that emphasize integrated investments in services, infrastructure, workforce capacity, governance, information, financing, and community engagement. Rather than focusing only on direct service delivery, the initiative addresses several dimensions of facility functionality at the same time.

The infrastructure and equipment gaps addressed by the initiative are consistent with national evidence showing uneven availability of essential medicines, diagnostic equipment, and reliable power across Nigerian PHCs. They also align with current national revitalization criteria, which include reliable power and water, adequate clinical space, functional toilets, maternity capacity, equipment, and

trained personnel. These elements are necessary conditions for service readiness, although the present program data do not establish their independent effects on utilization or quality.

5.2. The Evolving Role of Diaspora Nursing Organizations

A notable contribution of this initiative is its demonstration of how diaspora nursing organizations can move beyond traditional mission-based activities toward long-term institutional partnerships. Much of the literature on diaspora engagement has focused on short-term volunteer service, remittances, and humanitarian activities [16] [17]. Although these efforts provide valuable support, concerns have been raised regarding their sustainability and ability to produce lasting systems-level change [17].

The Adopt-A-PHC model links diaspora expertise to existing government-owned facilities and locally identified priorities. This approach is consistent with evidence that African nurse diaspora members can mobilize partnerships, support preventive care, and engage communities through professional networks and cultural connections. In the present initiative, diaspora nurses act as continuing partners in facility strengthening rather than temporary service providers.

The model also highlights the strategic role of professional nursing associations in mobilizing resources, coordinating stakeholder engagement, and sustaining long-term partnerships. Such organizations possess unique advantages, including professional credibility, technical expertise, cultural familiarity, and established networks that can facilitate collaboration across geographic boundaries [16].

5.3. Nursing Leadership and Community Health System Strengthening

The initiative demonstrates the expanding role of nurses as health system leaders. Beyond clinical service delivery, participating nurses were involved in assessment, planning, project management, mentoring, advocacy, stakeholder engagement, and quality improvement activities. These functions reflect contemporary perspectives on nursing leadership, which emphasize nurses' contributions to organizational change, population health, and healthcare transformation [6] [16].

Workforce development was a central component of the implementation. Although formal evaluation of provider competency was beyond the scope of this study, mentoring and capacity-building activities aimed to strengthen clinical knowledge, documentation practices, patient education, and continuity of care. Previous evidence suggests that strengthening human resource capacity is critical for improving PHC performance, particularly in resource-constrained settings where workforce shortages and limited professional development opportunities remain persistent challenges [6] [12].

The program further illustrates the importance of community partnership in strengthening PHC. Consistent with the principles articulated in the Alma-Ata and Astana declarations, community participation was integrated throughout as-

assessment, planning, implementation, and sustainability activities [1] [2]. Stakeholder engagement facilitated priority setting, fostered local ownership, and supported accountability mechanisms that are essential for long-term sustainability. These findings are consistent with studies demonstrating positive associations between community engagement, healthcare utilization, and trust in PHC systems [8] [15].

5.4. Sustainability and Scalability of the Model

A key strength of the Adopt-A-PHC Initiative is its emphasis on sustainability. Unlike traditional outreach programs that conclude after service delivery, the adoption model creates an ongoing relationship between diaspora nurses, healthcare providers, communities, and government stakeholders. Sustainability efforts included phased implementation, local stakeholder engagement, workforce support, and incorporation of facility improvements into existing governance structures.

The initiative's expansion from a pilot program of 4 to 29 PHCs across nine states suggests that the model can be implemented across diverse geographic and administrative contexts. Features that may support further expansion include use of existing PHC infrastructure, community partnerships, flexible implementation, and alignment with national PHC revitalization priorities. The structured application, review, and adoption process may facilitate replication by providing a standardized mechanism for facility selection, stakeholder engagement, implementation planning, and sustainability monitoring across diverse settings.

Policy Implications

The findings have important implications for health policy and PHC revitalization efforts in Nigeria. First, the initiative demonstrates that diaspora health professionals represent a potentially valuable resource for strengthening community-level health systems. Policymakers may benefit from developing formal mechanisms that facilitate collaboration among government agencies, professional associations, diaspora organizations, and local communities.

Second, the results underscore the importance of integrating infrastructure development with workforce strengthening, health information systems, and community engagement. Investments that focus exclusively on physical infrastructure may have limited impact if they are not accompanied by efforts to support human resources, governance, and service quality [6] [12].

The initiative demonstrates that partnership-based support can complement national PHC revitalization strategies by mobilizing professional expertise and resources while retaining local governance. Formal policy adoption should depend on prospective evidence concerning implementation fidelity, costs, maintenance, service quality, equity, and sustainability.

5.5. Limitations

The initiative was implemented as a service-strengthening program, so monitor-

ing emphasized operational milestones rather than predefined research outcomes. The findings should be interpreted as evidence of implementation feasibility and program reach rather than effectiveness or causal impact. Future prospective evaluations should assess service utilization, quality of care, patient outcomes, workforce performance, and sustainability using standardized methods.

Facilities were purposively selected through NANNNNA member networks, prior health missions, and stakeholder readiness for sustained partnership. Participating PHCs may therefore differ from other Nigerian PHCs in leadership engagement, community support, accessibility, and implementation feasibility. Accordingly, the reported geographic reach—29 adopted PHCs across nine states and three geopolitical zones—describes the selected program sites and is not nationally representative. The reported service reach of 20,813 visits is further limited to pilot PHCs in Ogun, Edo, Abia, and Imo States with complete 2022 utilization records and should not be generalized to all 29 adopted PHCs or to PHCs nationally.

6. Conclusions

The Adopt-A-Primary Health Center Initiative demonstrates the feasibility of a diaspora nurse-led model for strengthening primary health care systems in Nigeria. By integrating infrastructure rehabilitation, equipment support, workforce development, community engagement, and strengthening health information, the initiative provides a practical framework for supporting sustainable PHC improvement within existing public health systems.

The program illustrates how professional nursing organizations can move beyond episodic humanitarian outreach to support long-term institutional strengthening and community health system development. Through strategic partnerships among diaspora nurses, local healthcare providers, community stakeholders, and government agencies, the initiative has established a potentially scalable model for promoting PHC revitalization and advancing progress toward Universal Health Coverage. Future research should evaluate the model using standardized implementation, workforce, service utilization, quality, and population health indicators to determine its effectiveness, scalability, and broader applicability.

Ethical Considerations

The initiative was conducted as a programmatic quality-improvement and health-systems-strengthening activity; no identifiable patient-level data were collected or reported. The available records do not indicate whether the responsible institution required or issued formal ethics approval, a written quality-improvement or non-research determination, or equivalent authorization. Program activities were undertaken in collaboration with facility leadership, community representatives, and relevant government stakeholders.

Consent for Publication

Publication authorization for the named facilities and identifiable site images must be confirmed in writing by the appropriate facility, community, governmental, and organizational authorities. The manuscript records reviewed do not document this authorization; the final submission should state the authorizing parties, scope of permission, and date once verified.

Availability of Data and Materials

The datasets generated and/or analyzed during the current study are not publicly available because they consist primarily of organizational implementation records but may be available from the corresponding author upon reasonable request and organizational approval.

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Author Contributions

GOE conceived the manuscript and led program implementation. EI, EO, NM, TT, SA, and IZA contributed to program implementation, manuscript development, critical revisions, and approval of the final version. All authors reviewed and approved the final manuscript.

Conflicts of Interest

The authors declare no competing interests.

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Appendix

Supplementary program details are presented in the appendix in the following order: the roster of adopted facilities in **Table A1**, the seven domain-specific monitoring and evaluation tables, and a representative rehabilitation image in **Figure A1**.

Table A1. Adopted PHCs with facility-level details.

#	Primary Health Center	Local Government Area	State	NANNNA Members
1	Ogbuebulle Primary Health Center	Ikwuano	Abia State	Dr. Ngozi Mbibi, RN
2	Ndoro Ward 3 Primary Health Center	Ikwuano -Umuahia	Abia State	Dr. Ngozi Mbibi, RN
3	Ekeoba Primary Health Center	Umuahia North	Abia State	Dr. Charity Enwere, RN
4	Dr T.A. Orji Primary Health Center	Ikwuano	Abia State	Dr. Ruth Ifediora, RN
5	Ikot Ekpene Primary Health Center	Ikot Ekpene	Akwa Ibom State	Dr. Itawan James, RN
6	Uga Ward 1 Primary Health Center	Umuolu, Uga, Aguata	Anambra State	Dr. Teresa Okolo, RN,
7	Ezira Primary Health Center	Orumba South	Anambra State	Dr. Sandra Anyoha, RN
8	Umuoji Model Primary Health Center	Idemili North	Anambra State	Ms. Stella Okonkwo, RN
9	Umueze Anam Primary Health Center	Anambra West	Anambra State	Dr. Sandra Anyoha, RN
10	Ehor Primary Health Center	Uhunmwode	Edo State	Dr. Grace Ogiehor-Enoma, RN
11	Ugbiyokho Community Primary Health Center	Uhunmwode	Edo State	Dr. Grace Ogiehor-Enoma, RN
12	Okabere Community Primary Health Center	Ikpoba Okha	Edo State	Mr. Benjamin Okpeseiyi, RN
13	Ukhiri Community Primary Health Center	Ikpoba Okha	Edo State	Ms. Mercy Ekpoudom, RN
14	Igbekhue Primary Health Center	Orhionmwon	Edo State	Dr. Izoduwa Asoro, RN,
15	Oghada Primary Health Center	Uhunmwode	Edo State	Dr. Rufina Noragbon, RN
16	Ipoti Primary Health Center	Ijero	Ekiti State	Dr. Folake Adalakun, RN
17	Odo Ogba Basic Health Center	Igbara Odo Ekiti	Ekiti State	Dr. Wuraola Adesinasi, RN
18	Ezinihitte Primary Health Center	Ezinihitte Mbaise	Imo State	Dr. Emilia Iwu, RN
19	Nnarambia Ahiara Health Center	Ahiazu Mbaise	Imo State	Dr. Emilia Iwu, RN
20	Isiekenesi Primary Health Center	Ideato South	Imo State	Dr. Felicia Ikebube, RN
21	MDG Egbuoma Health Center	Egwe/Egbuoma, Oguta	Imo State	Dr. Dorothy Nwanonyiri
22	Avuvu Health Center	Ikeduru	Imo State	Dr. Julia Ugorji, RN
23	Italapo Primary Health Center	Ijebu-Ode	Ogun State	Ms. Titilola Turton, RN
24	Iwade-Oke Primary Health Center	Ijebu-Ode	Ogun State	Ms. Titilola Turton, RN
25	Aiyepe Primary Health Center	Odogbolu	Ogun State	Dr. Esther Oshunluyi, RN
26	Iregun Primary Health Center	Ikenne	Ogun State	Tayo Sosan, RN
27	Ogbagi Primary Health Center	Akoko Northwest	Ondo State	Dr. Oluyemisi Awodiya, RN
28	Ola Primary Health center	Ejigbo	Osun State	Dr. Victoria Odesina, RN
29	Ife Odan Primary Health center	Ejigbo	Osun State	Dr. Victoria Odesina, RN

Proposed Monitoring and Evaluation Framework for Future Implementation of the Adopt-A-PHC Initiative

Domain 1: Infrastructure and facility functionality

Indicator	Definition	Data Source	Frequency
PHCs renovated	Number of PHCs completing planned renovation activities	Project reports	Quarterly
Facility functionality score	Percentage of infrastructure requirements meeting established standards	Assessment checklist	Annually
Functional water supply	Facilities with reliable water access	Facility assessment	Semiannually
Functional power source	Facilities with reliable power support	Facility assessment	Semiannually

Domain 2: Equipment and Service Readiness

Indicator	Definition	Data Source	Frequency
Essential equipment availability	Percentage of required equipment available and functioning	Equipment inventory	Quarterly
Maternal health equipment availability	Facilities with delivery bed, fetal monitor, infant scale, and supplies	Facility inventory	Quarterly
Equipment utilization rate	Percentage of supplied equipment actively used for service delivery	Facility reports	Semiannually

Domain 3: Workforce Development

Indicator	Definition	Data Source	Frequency
Health workers trained	Number of PHC personnel participating in training activities	Attendance records	Quarterly
Mentorship sessions conducted	Number of mentoring or coaching encounters	Program reports	Quarterly
Provider competency improvement	Pre/post training assessment scores	Training evaluations	Annually
Staff retention rate	Percentage of trained staff remaining at facility	Human resource records	Annually

Domain 4: Health Information Systems

Indicator	Definition	Data Source	Frequency
Complete patient records	Percentage of charts meeting documentation standards	Chart audits	Quarterly
Monthly reports submitted on time	Percentage of required reports submitted by deadline	Facility reports	Monthly
Data quality score	Accuracy and completeness of facility data	Data audits	Semiannually
Referral tracking completion rate	Percentage of referrals documented and followed up	Referral registers	Quarterly

Domain 5: Service Delivery and Utilization

Indicator	Definition	Data Source	Frequency
Monthly patient visits	Total outpatient visits per month	Facility registers	Monthly
Antenatal attendance	Number of antenatal visits	ANC records	Monthly
Immunization coverage	Number of children receiving scheduled vaccinations	Immunization registers	Monthly
Hypertension clinic attendance	Number of patients attending chronic disease clinics	Clinic records	Monthly

Domain 6: Community Engagement

Indicator	Definition	Data Source	Frequency
Community meetings conducted	Engagement meetings with stakeholders	Meeting minutes	Quarterly
Ward committee participation	Number of ward committee meetings attended	Committee reports	Quarterly
Health education sessions delivered	Community outreach activities conducted	Program reports	Quarterly
Community satisfaction score	Perceptions of PHC quality and accessibility	Community surveys	Annually

Domain 7: Sustainability

Indicator	Definition	Data Source	Frequency
Active local partnerships	Number of collaborating community and government partners	Partnership records	Annually
Facility maintenance plan in place	Presence of documented maintenance procedures	Facility review	Annually
Local resource contributions	Financial or in-kind community contributions	Financial records	Annually
Sustainability score	Composite measure of governance, maintenance, staffing, and financing	Sustainability assessment tool	Annually

Sample Rehabilitation Picture (Figure A1)

Infrastructure rehabilitation of Ugbiyokho Community Primary Health Center, Uhunmwode Local Government Area, Edo State, Nigeria.



Figure A1. Infrastructure rehabilitation of Ugbiyokho Community Primary Health Center, Uhunmwode Local Government Area, Edo State, Nigeria. Representative before-and-after photographs demonstrate improvements implemented through the NANNNA Adopt-A-Primary Health Center (Adopt-A-PHC) Initiative, including facility renovation, exterior refurbishment, replacement of windows and doors, environmental improvements, and upgrading of interior clinical spaces to support safer and more functional primary health care service delivery.