REPORT

GHANA HARMONIZED HEALTH FACILITY ASSESSMENT

QUALITY OF CARE SURVEY

2025

November 2025

Foreword

The quality of health services is one of the most important determinants of health outcomes and a critical pillar in Ghana's pursuit of Universal Health Coverage (UHC) and the health-related Sustainable Development Goals (SDGs). While previous assessments have measured whether services are available and facilities are ready, the true test lies in whether clients actually receive care that meets clinical standards.

The Ghana Harmonized Health Facility Assessment (G-HHFA) was introduced in 2021 to generate nationally representative data on service availability, readiness, and management. Building on this foundation, the 2025 Quality of Care (QoC) module represents a significant milestone in our journey. For the first time at national scale, routine client records across six priority programme areas, antenatal care, malaria in children under five, HIV testing services, antiretroviral therapy, prevention of mother-to-child transmission, and tuberculosis, were systematically reviewed to measure provider adherence to clinical standards of care.

The findings are striking. They reveal that while Ghana has expanded access to essential health services, quality gaps persist across facilities, regions, and population groups. These gaps translate into missed opportunities for timely diagnosis, correct treatment, counselling, and follow-up. At the same time, areas of strong performance confirm that high-quality care is achievable when systems at the primary health care level are properly resourced, supervised, and supported.

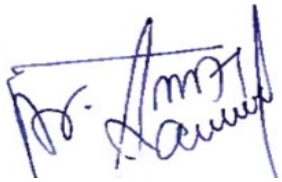
This report comes at a defining moment in our health sector. Under the resetting agenda, the Government of Ghana and the Ghana Health Service are rolling out critical reforms to strengthen primary health care at all levels. These include the introduction of Free Primary Health Care (PHC) at the point of delivery to eliminate financial barriers, the scale-up of Preferred Provider Networks (PPNs) and Model Health Centres to improve coordination, efficiency, and quality, and investments in digital health innovations, supply chain systems, and the health workforce.

The QoC findings provide a timely compass to guide these reforms and to ensure that the expansion of service coverage is matched by improvements in quality and equity.

By combining data on availability, readiness, and quality, Ghana now possesses one of the most comprehensive health facility evidence bases in the region. This positions the country as a leader in health system monitoring and provides the foundation for evidence-based policy, planning, and resource allocation.

On behalf of the Ghana Health Service, I wish to acknowledge the Ministry of Health, the World Health Organization, development partners, civil society, and our regional and district teams for their invaluable contributions. Above all, I extend my deepest appreciation to the health workers and facility managers whose daily efforts make these reforms possible and whose commitment is essential to improving the quality of care.

As we reflect on these findings, let us reaffirm our shared commitment: that every Ghanaian, regardless of location or background, has access to care that is not only available and affordable, but consistently of the highest quality.



DR SAMUEL KABA AKORIYEA
DIRECTOR GENERAL
GHANA HEALTH SERVICE

Statement by the World Health Organization

The World Health Organization commends the Government of Ghana, the Ministry of Health, and the Ghana Health Service for their leadership in implementing the Quality of Care Records Review Module of the Harmonized Health Facility Assessment (HHFA). This milestone reflects Ghana's continued commitment to strengthening health systems and improving the quality of services delivered to every person, everywhere.

The Quality of Care Records Review Module, developed by WHO and adapted for Ghana, provides a structured approach to measuring adherence to evidence-based clinical standards. Through the review of client records across key service areas, including antenatal care, malaria, HIV and tuberculosis, it enables health authorities to assess not only service availability but also the quality of care processes that underpin effective, safe and people-centered health services.

This initiative aligns with WHO's global agenda for improving the quality of essential health services and for strengthening the routine measurement of service delivery performance. It demonstrates how standardised methodologies such as the HHFA can be adapted to national contexts to produce actionable data that inform policy and drive improvements in primary health care and service delivery.

Importantly, the findings contribute to understanding and addressing inequities in service quality. By highlighting variations in care processes across facility types, regions and populations, the assessment provides critical evidence for reducing disparities and ensuring that all people, regardless of where they live or their socioeconomic status, receive care of the same high standard.

The assessment also exemplifies effective collaboration between national institutions, technical experts and partners. Through joint training, field implementation and analysis, the process has strengthened national capacity to collect, interpret and use facility-level data for decision-making.

With funding and technical support from WHO, made possible through the contribution of the United Kingdom Foreign, Commonwealth and Development Office (UKFCDO), this assessment has generated valuable national evidence to guide policy, planning and quality improvement. The collaboration demonstrates WHO's core mission of supporting countries to generate and use reliable data to improve health outcomes and accelerate progress towards Universal Health Coverage.

WHO reaffirms its commitment to continue working with Ghana and partners to translate these findings into action and to ensure that every woman, man and child receives the quality of care they deserve.

DR FIONA BRAKA
COUNTRY REPRESENTATIVE, GHANA
WORLD HEALTH ORGANIZATION

Statement by the United Kingdom's Foreign, Commonwealth and Development Office (FCDO)

The United Kingdom (UK) is proud to partner with the Ministry of Health, Ghana Health Service and the World Health Organization to expand the 2022 Harmonized Health Facility Assessment (HHFA) to include the Quality of Care Records Review Module. This means that, for the first time, Ghana has a comprehensive and validated national picture of the quality of care delivered in Ghana. This ensures that the HHFA informs action not only on enhancing the readiness and availability of health services delivered to Ghanaians, but also their quality.

Improving quality of care, alongside increasing service coverage and ensuring financial protection, is fundamental to the achievement of universal health coverage. As the 2018 Lancet Commission on High-Quality Health Systems stated, quality of care should be available to all - including the poor, the less educated, adolescents, those with stigmatised conditions, and those at the edges of health systems, such as people in prisons. Without quality, trust in the health system diminishes and health outcomes are compromised.

This collaboration fully aligns with the UK's commitment to work with our partners on building resilient, equitable and accountable health systems. The use of data and evidence to inform policy ensures that investments translate into better outcomes for people. This assessment represents an important step in helping to identify where improvements are most needed and where good practice can be replicated. This evidence base is critical in delivering on the objectives set out in Ghana's National Healthcare Quality Strategy and Universal Health Coverage Roadmap, and ultimately Ghana's ambition of health sovereignty.

The UK congratulates Ghana on this significant achievement, which once again demonstrates Ghana's leadership in taking an evidence-based approach to strengthening its health systems. We look forward to continued collaboration with the Ministry of Health, Ghana Health Service, the World Health Organization and other partners to apply this evidence to improve health outcomes and ensure that no one is left behind.

Terri Sarch

DR. TERRI SARCH
DEVELOPMENT DIRECTOR, BRITISH HIGH COMMISSION ACCRA
FOREIGN, COMMONWEALTH AND DEVELOPMENT OFFICE OF THE UNITED KINGDOM

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LIST OF ABBREVIATIONS

ACT/ACTs	Artemisinin-based Combination Therapy.
ANC	Antenatal Care
ART	Antiretroviral Therapy
CHAG	Christian Health Association of Ghana
CHN	Community Health Nurse
CHPS	Community-based Health Planning and Services
CHWs	Community Health Workers
CRVS	Civil Registration and Vital Statistics
CSO	Civil Society Organisation
CSPro	Census and Survey Processing System
DHIMS2	District Health Information Management System
DHMT	District Health Management Team
DP	Development Partners
EmONC	Emergency Obstetric and Newborn Care
EMR	Electronic Medical Records
eTracker	Electronic Tracker
FBO	Faith-Based Organization
FCDO	Foreign, Commonwealth and Development Office
FDA	Food and Drugs Authority
GhILMIS	Ghana Integrated Logistics Management Information System
GHS	Ghana Health Service
G-HHFA	Ghana Harmonized Health Facility Assessment
GSS	Ghana Statistical Service

HeFRA	Health Facilities Regulatory Agency
HHFA	Harmonized Health Facility Assessment
HIV/TB	HIV and Tuberculosis (co-infection)
HMIS	Health Management Information System
HRIMS	Human Resource Information Management System
HTM	HIV, TB and Malaria
HTS	HIV Testing Services
IMCI	Integrated Management of Childhood Illness
IPT	Isoniazid Preventive Therapy.
IPTp	Intermittent Preventive Treatment of malaria in pregnancy
IYCF	Infant and Young Child Feeding
LMIS	Logistics Management Information System
M&E	Monitoring and Evaluation
MCH	Maternal and Child Health
MFL	Master Facility List
MMDAs	Metropolitan, Municipal and District Assemblies
MoH	Ministry of Health
NACP	National AIDS Control Programme
NHIA	National Health Insurance Authority
NHIS	National Health Insurance Scheme
NHRC	Navrongo Health Research Centre
NoP	Networks of Practice
PHC	Primary Health Care
PLWHA	People Living with HIV/AIDS

PMTCT	Prevention of Mother-to-Child Transmission
PPMED	Policy, Planning, Monitoring and Evaluation Division
PrEP	Pre-exposure Prophylaxis
QoC	Quality of Care
RDD	Research Development Division
RDT	Rapid Diagnostic Test
SARA	Service Availability and Readiness Assessment
SDG	Sustainable Development Goals
SDI	Service Delivery Indicators
SOPs	Standard Operating Procedures
TB	Tuberculosis
ToT	Training of Trainers
UHC	Universal Health Coverage
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WB	World Bank
WHO	World Health Organization

Executive Summary

The Ghana Harmonized Health Facility Assessment (HHFA) Quality of Care (QoC) Record Review was undertaken to provide a nationally representative picture of the extent to which health providers adhere to clinical standards of care. Unlike earlier HHFA modules that assessed service availability and readiness, the QoC module focuses directly on patient care processes by reviewing clinical records across priority service areas. This approach generates unique evidence on the actual quality of services delivered in health facilities, complementing existing information systems and household surveys.

The executive summary presents the key findings of the assessment, highlighting patterns in provider adherence to standards of care, variations across regions and facility types, and priority gaps that require policy and programmatic attention. These results are intended to guide national and subnational decision-makers, development partners, and programme managers in strengthening service delivery and advancing Ghana's commitment to Universal Health Coverage.

Antenatal Care

It is evident that, even though services exist in the facilities, both the HHFA (47%) and DHIS2 (54%) data has shown that just about half of women book ANC early.

Most facilities in both datasets [HHFA (99%), DHIS2 (85%)] have demonstrated high performance in achieving ANC fourth visits. Despite the remarkably good percentage, only 29% (HHFA) and 44% (DHIS2) had clients making at least eight visits. This can be attributed to transport cost, long waiting times, client-lost to follow-up, inflexible clinic days and competing priorities for women.

Malaria

Nationally, Ghana has achieved commendable adherence to malaria treatment protocols, with 97% of confirmed cases receiving anti-malarial prescriptions, 96% being prescribed an artemisinin-based combination therapy (ACT), and 92% receiving the correct dosage. These high rates reflect the strength of Ghana's health system and the effective implementation of national malaria guidelines.

However, approximately 14% of malaria diagnoses were made without a documented positive test, which undermines the "test-before-treat" policy and raises concerns about presumptive treatment and/or data quality. The Ahafo Region, regional hospitals, and urban facilities had

the highest percentages of undocumented diagnoses, indicating urgent need for targeted quality improvement interventions. Furthermore, while rapid diagnostic tests (RDTs) are widely and appropriately used in primary-level facilities, the use of microscopy, considered the gold standard remains concentrated in hospitals and urban settings.

Clinical documentation is another critical area of concern. Although documentation of symptoms, physical examination, and temperature is generally strong, anaemia assessment, an essential component of malaria severity evaluation, is poorly documented in over half of clients. Regional, facility-level, and urban-rural disparities were evident, with CHPS compounds and rural areas consistently underperforming compared with other categories. These findings are particularly concerning given the high prevalence of malaria-associated anaemia in children under five.

Similarly, the documentation of danger signs indicating severe malaria was inconsistent. While fever was recorded in 93% of clients, asking the caregiver about signs of severe illness, such as convulsions or loss of consciousness, was only documented in 20% of clients. This gap compromises early detection of life-threatening malaria cases and limits timely referrals. Capacity-building is required to ensure appropriate history-taking and to emphasise recording of both negative and positive findings for potential life-threatening complications.

While Ghana's national malaria treatment performance is strong, the findings highlight the need for targeted interventions to address diagnostic and/or documentation shortfalls, particularly in underserved and high-burden regions. Strengthening provider capacity, improving documentation and supervision systems, and scaling up microscopy at referral levels are recommended to enhance diagnostic accuracy, ensure timely identification of severe cases, and close the remaining quality and equity gaps in malaria care.

HIV HTS, ART and PMTCT

This section presents an assessment of the quality of HIV services across Ghana, focusing on HIV testing, antiretroviral therapy (ART), viral load monitoring, prevention of mother-to-child transmission (PMTCT), and tuberculosis (TB) screening among people living with HIV.

HIV Testing and Prevention:

- Nearly all tested clients (99%) had a recorded HIV test result, and 95% of clients received their results.

- However, only 71% of clients received post-test counselling, and condom distribution is extremely low (4% of clients), especially in primary care and rural settings.

Linkage to Treatment:

- 82% of HIV-positive clients were successfully linked to ART care. However, nearly 1 in 5 clients lacked documentation of linkage, risking loss to follow-up.

ART Quality and Monitoring:

- 90% of ART clients had a documented confirmed HIV diagnosis before treatment, and in 97% of clients national ART guidelines were followed. The 10% of clients without a documented confirmed diagnosis is of significant concern.
- Viral load monitoring is critically low: only 27% clients had a documented viral load test at 12 months, and just 10% had an undetectable viral load at last measurement.
- TB screening and preventive therapy for people living with HIV remain inadequate.

PMTCT (Prevention of Mother-to-Child Transmission):

- Documentation of partner testing (24%), newborn prophylaxis (56%), early infant diagnosis (29%), and infant preventive therapy (40%) is low.
- Nutrition counselling for HIV-exposed infants is documented in just 31% of clients.

Achieving the UNAIDS 95-95-95 targets and eliminating mother-to-child transmission require urgent, targeted policy action to close service delivery gaps, strengthen health systems, and ensure equitable access to high-quality HIV services nationwide.

Tuberculosis

Nationally, 71% of TB clients were diagnosed based on one positive sputum result using the Xpert MTB/Rif test. This compares favourably with Global trend of 62%; the annual Programme performance is 76% in 2024 (WHO Global TB Report 2024)

Among TB client records assessed, 48% had their household contacts documented and 43% of clients had all household contacts screened for TB. Western North documented 97% in both household contacts and screening of the same while Upper East showed significant gaps, with only 14% documented and screened.

Nationally, 12% of client recorded assessed documented TB clients who tested positive for HIV. This underscores the importance of integrated TB-HIV services to ensure timely diagnosis, treatment, and follow-up for co-infected individuals.

Regional variation was substantial. In Savannah region, 60% of TB clients assessed tested positive for HIV, followed by North East (34%), Eastern (17%), and Ashanti (19%). In contrast, Upper West (1%), Bono East (3%), and Northern (3%) reported the lowest rates. These variations may reflect differences in HIV prevalence, testing coverage, or data completeness across regions.

This report underscores the need for a coordinated effort to enhance TB services across Ghana, ensuring equitable access to high-quality care and improving outcomes for all patients, particularly co-infected TB/HIV.

Introduction

The Government of Ghana has made Universal Health Coverage (UHC) a national priority, guided by the National Health Policy (2020) and the UHC Roadmap (2020 - 2030). These strategies emphasise equitable access to quality services, with primary health care (PHC) as the foundation. Key reforms such as the Networks of Practice (NoPs) and Model Health Centres are being rolled out to expand coverage and strengthen the quality of care across the country.

For decision-making, Ghana draws on multiple health data sources, including routine HMIS, household surveys, civil registration and vital statistics, and facility assessments. While these sources provide important information on service availability, coverage, and outcomes, they have not systematically measured the quality of care delivered to clients. In particular, routine systems track service utilisation but not whether care provided aligns with clinical standards.

To address this gap, Ghana adopted the WHO Harmonized Health Facility Assessment (HHFA), which provides a globally standardised approach to assessing service availability, readiness, management, and quality. The first G-HHFA, conducted in 2021, focused on availability, readiness, and management. These results provided critical insights into infrastructure, staffing, and commodities but could not fully capture how well care was delivered.

In March 2025, Ghana implemented the HHFA Quality of Care (QoC) record review, completing the fourth HHFA module. This survey systematically assessed provider adherence to national and international clinical standards by reviewing routine client records in six priority programme areas:

- Antenatal care (ANC)
- Malaria case management in children under five
- HIV Testing Services (HTS)
- Antiretroviral Therapy (ART)
- Prevention of Mother-to-Child Transmission (PMTCT)
- Tuberculosis (TB) services

The QoC survey was nationwide, covering all 16 regions and 261 districts, and assessed 1,651 facilities out of 1,756 sampled (95 percent completion rate).

By focusing on process measures - such as whether ANC clients received blood pressure checks and IPTp, whether febrile children were tested before treatment, or whether HIV-positive clients were enrolled and monitored - the QoC module provides evidence on the actual content and quality of care received by Ghanaians. This complements the first HHFA's findings on availability and readiness, producing a comprehensive picture of facility performance.

The 2025 QoC report therefore provides Ghana with a robust, standardised evidence base to:

- Benchmark adherence to clinical standards across service areas and facility types.
- Identify equity gaps in the quality of care by region, ownership, and rural–urban location.
- Inform PHC reforms such as the Networks of Practice and the roll-out of Model Health Centres.
- Support national and subnational accountability towards achieving UHC by 2030.

Country Profile

Ghana is located in West Africa, bordered by Côte d'Ivoire to the west, Burkina Faso to the north, Togo to the east, and the Atlantic Ocean to the south. It covers approximately 238,535 km², with ecological zones ranging from coastal savannahs to forest belts and northern savannahs.

According to the Ghana Statistical Service (GSS) 2021 Population and Housing Census, Ghana's population was 30.8 million. The population is projected to reach approximately 33.5 million by 2025, with an annual growth rate of about 2.1 percent (GSS, 2022). Administratively, the country is divided into 16 regions and 261 Metropolitan, Municipal, and District Assemblies (MMDAs), which serve as the basis for local governance, planning, and resource mobilisation.

Ghana is a multi-ethnic, multilingual, and multi-religious society. The largest ethnic groups are Akan, Mole-Dagbon, and Ewe. Christianity is the predominant religion, followed by Islam and traditional belief systems (GSS, 2021).

Politically, Ghana is a stable democracy under the Fourth Republic (since 1992), with regular presidential and parliamentary elections held every four years. This stability has supported social and health sector development.

Economically, Ghana experienced robust growth averaging 7 percent between 2017 and 2019. The COVID-19 pandemic slowed growth, but recovery has been steady, with GDP growth projected at about 3.3 percent between 2022 and 2024 (World Bank, 2023). Poverty reduction has slowed, with GSS estimating that about 23.4 percent of the population lived below the national poverty line in 2021.

From a health perspective, Ghana has made gains in coverage of key services, including immunisation, skilled birth attendance, and treatment of infectious diseases. However, disparities remain by geography, socio-economic status, and facility type. These inequities underscore the importance of not only measuring service availability and readiness, but also assessing the quality of care delivered at the point of service, the central purpose of this report.

The Health System in Ghana

Ghana's health system is decentralised and pluralistic, involving public, faith-based, and private providers. The Ministry of Health (MoH) serves as the policy lead, regulator, and steward of the sector, working through more than 25 agencies. The Ghana Health Service (GHS) is the main implementing agency for public service delivery, operating through a hierarchical structure spanning national, regional, district, sub-district, and community levels.

Service Delivery Structure

- Tertiary level: Teaching hospitals and specialised facilities provide advanced referral services, clinical training, and research.
- Secondary level: Regional hospitals serve as referral centres for districts and provide both clinical and public health services.
- Primary level: District hospitals, health centres, clinics, maternity homes, and Community-based Health Planning and Services (CHPS) compounds deliver first-line care.

The CHPS programme remains the frontline strategy for expanding access to essential services. Health centres have been designated as hubs for Networks of Practice (NoPs), an innovation to improve quality, coordination, and efficiency in primary care, with structured linkages to

district hospitals. However, utilisation patterns show that many clients bypass lower-level facilities for hospitals, raising questions about perceptions of quality and the actual services delivered at first-contact points.

Over the past decade, Ghana has conducted a number of health facility assessments, including the Vital Signs Profile assessment, the 2018 CHPS Verification Survey, and the 2020 Emergency Obstetric and Newborn Care (EmONC) survey. These exercises generated valuable insights into service delivery capacity and health system performance. However, each was limited in scope, often focusing on specific service areas or subsets of facilities, and therefore could not provide a fully harmonised and comprehensive picture of the health system.

To address these gaps, Ghana adopted the WHO Harmonized Health Facility Assessment (HHFA) approach. The first HHFA in 2021 measured service availability, readiness, and management practices across the health system, offering robust evidence on whether facilities were equipped with the infrastructure, commodities, and staff needed to deliver essential services. While the 2021 HHFA provided robust evidence on availability and readiness, it did not assess whether the care provided was consistent with clinical standards in practice.

The 2025 Quality of Care (QoC) module was therefore implemented to complement these earlier assessments. By systematically reviewing client records in priority programme areas, the module provides evidence on provider adherence to clinical standards and the actual content of care delivered at the point of service. Together, the availability, readiness, and quality modules of the HHFA offer a uniquely comprehensive evidence base to inform Ghana's efforts to strengthen primary health care, advance the Networks of Practice (NoPs) reform, and accelerate progress toward Universal Health Coverage (UHC).

The structure of Ghana's health system provides the foundation for these assessments. Figure 1.1 illustrates how governance, regulation, and service delivery are organised across national, regional, and district levels, and how public, faith-based, and private providers contribute to care at primary, secondary, and tertiary levels. These arrangements underpin adherence to clinical standards and directly influence the quality of care measured in the 2025 G-HHFA QoC module.

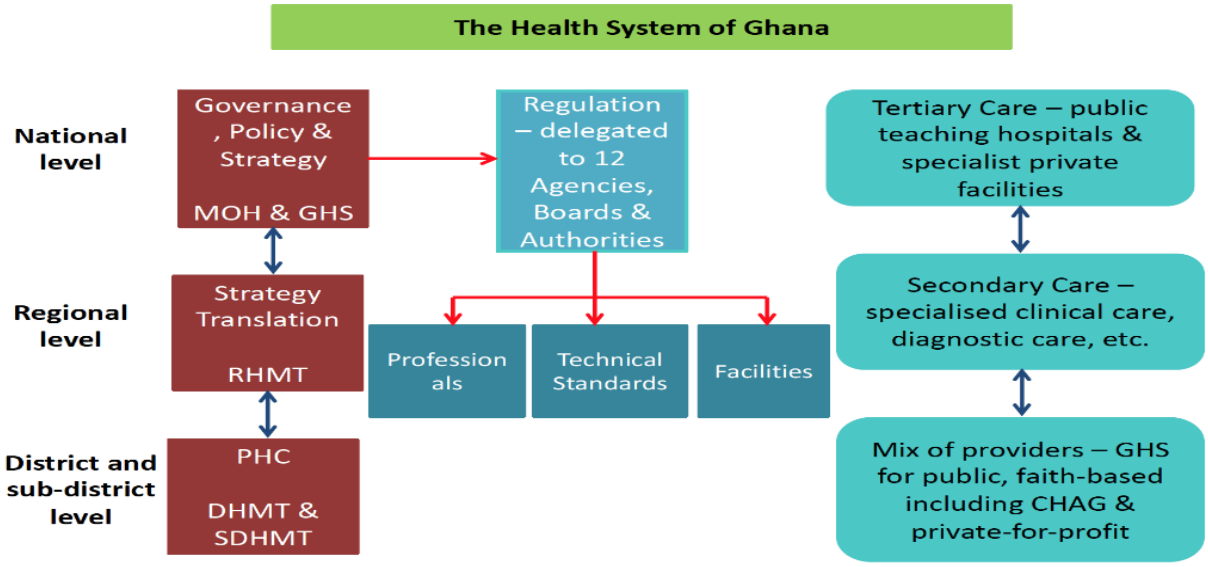

Figure 1.1: *Governance and service delivery structure of Ghana's health system and its relevance to Quality of Care*

Financing

The National Health Insurance Scheme (NHIS) is the primary prepayment mechanism, covering most common conditions. It is complemented by government budget allocations, development partner contributions, and out-of-pocket payments. Despite progress, financial constraints remain a challenge for sustaining quality inputs such as competent staff, functional diagnostics, essential medicines, and supervision.

Quality Governance and Regulation

Quality of care is supported through regulatory and oversight mechanisms:

- The Health Facilities Regulatory Agency (HeFRA) licenses and inspects facilities.
- Professional councils regulate clinical practice and standards.
- The Food and Drugs Authority (FDA) regulate medicines, vaccines, devices, and other medical products.
- The MoH and GHS implement national clinical guidelines, mentorship, supervision, patient safety programmes, and maternal/perinatal death surveillance and response.
- The NHIA contributes through credentialing and clinical audits, introducing purchaser-side levers for quality.

These frameworks ensure that quality measurement is embedded within health system governance. The QoC module provides a structured means to assess how well these policies are translated into routine care delivery.

Health Workforce and Competence

Workforce numbers and distribution remain uneven across regions and levels of care, with persistent shortages in rural and remote facilities. Continuous professional development, supportive supervision, and mentoring are central to sustaining competence and ensuring adherence to clinical standards. Potential gaps in provider competence and workload pressures are reflected in the QoC results, which measure adherence to standards as documented in client records.

Diagnostics, Medicines, and Supplies

Quality care depends on access to essential diagnostics (e.g., malaria testing, haemoglobin testing in ANC, sputum tests for TB), and uninterrupted supply of essential medicines (e.g., ACTs, IPTp, ART). Weaknesses in supply chain management and commodity availability may be a barrier to guideline adherence. The QoC record review helps identify where these bottlenecks translate into gaps in documented client care.

Digital Health and Records Systems

The District Health Information Management System (DHIMS2) is the backbone for routine service reporting, but it primarily tracks volumes and coverage rather than process quality. Increasingly, facilities use programme-specific e-trackers and EMRs (e.g., for ANC, HIV, TB, ART), yet record completeness and consistency vary across facility types. Because the QoC module relies on these records, the quality of documentation is both a constraint and a critical finding in itself.

Equity, Client Experience, and Accountability

Disparities in quality of care exist across regions, urban-rural areas, and facility types. Client perceptions of care, including waiting time, respectful treatment, and privacy, strongly influence health-seeking behaviour and contribute to bypassing of lower-level facilities. While this report focuses on technical process quality, the findings are interpreted alongside broader initiatives to strengthen person-centred and equitable care.

Quality of Care and Information Systems

Ghana has expanded access to health services, but persistent gaps remain in adherence to clinical standards, consistency of documentation, and equity in service delivery. To address these challenges, Ghana adopted the WHO HHFA. The first HHFA in 2021 assessed availability, readiness, and management. The 2025 Quality of Care module completes the HHFA by systematically measuring the actual content of care delivered, using client record reviews across six priority programme areas. Together, these datasets provide a comprehensive and harmonised picture of health system capacity and performance.

Health Information Systems in Ghana

Reliable health information is central to monitoring Ghana's progress towards the health-related Sustainable Development Goals (SDGs) and Universal Health Coverage (UHC). Ghana's health information systems draw on multiple data sources, including population-based surveys, civil registration and vital statistics (CRVS), and administrative and programme data. The WHO SCORE assessment framework has provided a basis for assessing and strengthening these systems.

Health Service Data

The District Health Information Management System (DHIMS2) is the national platform for routine health service reporting, capturing data from both public and private facilities. Reporting is organised across five levels: facility, sub-district, district, regional, and national. All facilities are mandated by the Ghana Health Service and Teaching Hospitals Act, 1996 (Act 525) to report services provided according to an agreed schedule.

- Public and private facilities (including CHPS, health centres, hospitals, maternity homes, and clinics) contribute data.
- Electronic Medical Records (EMRs) and programme-specific e-trackers (e.g., for ANC, HIV, TB, ART) are increasingly in use, though interoperability with DHIMS2 remains uneven.
- Facilities without computers submit verified data manually to the sub-district for entry into DHIMS2.

While DHIMS2 is effective for tracking service volumes and coverage, it provides limited information on clinical process quality, a gap the QoC module directly addresses.

Human Resource Information Management System (HRIMS)

Managed by the GHS Human Resource Division, HRIMS records staff profiles to facilitate promotions, transfers, and workforce planning. The Ministry of Health has introduced an e-portal for recruitment to enhance transparency and equity in staff deployment. Workforce information is also linked to national platforms managed by the Public Service Commission. Distribution, competencies, and supervision of staff are critical determinants of quality of care, and HRIMS data provide a foundation for monitoring these.

Logistics Management Information System (LMIS)

The Ghana Integrated Logistics Management Information System (GhILMIS) supports supply chain monitoring and decision-making. It provides data on medicines, commodities, and supplies, ensuring that essential inputs (e.g., ACTs, IPTp, ART, diagnostics) are available when needed. Reliable LMIS data are key for sustaining adherence to treatment guidelines assessed under the QoC module.

National Health Insurance Information Systems

The National Health Insurance Authority (NHIA) maintains data on scheme membership and claims. These data provide important insights into service utilisation, financial protection, and coverage of the insured population. Through credentialing and clinical audits, NHIA also introduces a financing-linked lever for service quality.

Regulatory Information Systems

Several regulatory agencies generate health sector data:

- Health Facilities Regulatory Agency (HeFRA): maintains registers of licensed public and private facilities under Act 829 (2011).
- Food and Drugs Authority (FDA): produces regulatory data on human and veterinary drugs, food, biological products, and devices under Act 851 (2012). These datasets complement DHIMS2 by providing evidence on compliance, safety, and availability of regulated products and facilities.

Civil Registration and Vital Statistics (CRVS)

The Births and Deaths Registry, established under Act 301 (1965), provides information on vital events. In collaboration with health facilities, the Registry is working to institutionalise real-time reporting of births and deaths, including medical certification of cause of death by attending physicians. Improved CRVS strengthens Ghana's ability to track mortality and complements facility-level service statistics.

Data Governance and Coordination

Data governance is led by the Ministry of Health (MoH), with implementation support from agencies such as GHS. The Centre for Health Information Management (CHIM), housed under the Policy, Planning, Monitoring and Evaluation Division (PPMED) of GHS, manages DHIMS2 access, configuration, and reporting. Access to the national data repository is tightly controlled, and requests for data from external partners are channelled through the Director-General of the GHS and the Director of PPMED.

Routine review mechanisms include quarterly, mid-year, and annual performance reviews, which depend on DHIMS2 outputs. National requirements and indicators are updated annually, with adjustments reflected in the DHIMS2 configuration.

Health Infrastructure Data

According to the DHIMS2 as of August 2025, Ghana had 11,129 health facilities distributed across ownership categories. The majority (8,738) were government-owned, with significant contributions from private (1,906 facilities), faith-based/CHAG providers (346), quasi-government facilities (109), and smaller numbers from other faith-based institutions (16) and mining sector providers (14). The distribution by region and ownership type is shown in Table 1.

Table 1. Health facility distribution in Ghana by ownership, August 2025

Region	Other Faith-Based	Quasi-Government	Government	Private	CHAG	Mines
Ahafo	1		172	18	11	1
Ashanti	5	11	1,331	370	88	1
Bono		5	370	60	28	
Bono East	2		376	54	8	
Central	1	24	716	144	22	
Eastern		3	1,083	122	29	1
Greater Accra	3	39	1,053	728	13	
North East		1	139	7	6	
Northern		7	519	63	16	
Oti			242	9	6	
Savannah			238	8	12	
Upper East		2	611	57	22	
Upper West	2	1	573	14	20	
Volta		1	496	56	22	
Western	1	14	524	146	22	8
Western North	1	1	295	50	21	3
Ghana	**16**	**109**	**8,738**	**1,906**	**346**	**14**

Part 1: Background to the HHFA Quality of Care in Ghana

Rationale

Monitoring progress towards the health-related SDGs and UHC requires reliable, comprehensive, and comparable data. Ghana has built a strong health information system that draws on multiple sources, including population-based surveys (such as the Ghana Demographic and Health Survey, Multiple Indicator Cluster Survey, and Maternal Health Survey), CRVS, and routine health facility reporting through the DHIMS2. Complementary systems, such as the HRIMS, the GhILMIS, the NHIA claims database, and data from regulatory agencies (HeFRA, FDA), provide further insights into workforce, supply chains, financing, and service regulation.

These sources have been invaluable in tracking service coverage and system performance. However, they largely measure inputs, outputs, and coverage, rather than the processes of care that determine whether clients receive services in line with national and international standards. Previous specialised surveys, such as the Service Provision Assessment (SPA), the 2018 CHPS Verification Survey, and the 2020 Emergency Obstetric and Newborn Care (EmONC) survey, generated important insights but were limited in scope and comparability.

The adoption of the WHO HHFA framework marked a turning point. The first G-HHFA in 2021 provided nationally representative data on service availability, readiness, and management practices, helping Ghana identify gaps in infrastructure, commodities, and staffing. Yet, that survey did not capture how well services were delivered in practice.

To address this critical evidence gap, Ghana implemented the 2025 QoC module of the HHFA. The QoC module systematically reviews clinical records across six priority programme areas, antenatal care, malaria in under-fives, HIV services (HTS, ART, PMTCT), and tuberculosis, to assess provider adherence to clinical standards. By focusing on clinical processes such as history-taking, diagnostics, treatment, counselling, and follow-up, the QoC module provides a direct measure of service quality. This module provides robust evidence on the content and quality of care delivered in routine practice, complementing earlier findings on availability and readiness.

The rationale for the QoC module is fourfold:

- To generate nationally representative evidence on process quality, moving beyond inputs to assess whether care is delivered according to standards.

- To strengthen accountability for Ghana's UHC Roadmap and Health Sector Medium-Term Development Plan (HSMTDP 2022-2025) by tracking both coverage and quality.
- To provide critical evidence for the roll-out of NoPs and Model Health Centres, ensuring reforms are anchored in reliable data.
- To align Ghana with the global HHFA framework, ensuring comparability with other countries and reinforcing leadership in health system monitoring.

Together, the availability, readiness, management, and quality modules of the HHFA provide Ghana with a uniquely comprehensive health facility evidence base. By complementing existing information systems with nationally representative data on the content and quality of care, the 2025 G-HHFA QoC module strengthens the foundation for evidence-based policy, investment, and reform, positioning Ghana as a regional leader in health system monitoring and accelerating progress toward UHC.

Background

The Ghana HHFA was first implemented in 2021 to generate nationally representative data on service availability, readiness, and management practices across health facilities. Conducted using a facility audit methodology, this initial survey provided critical insights into whether the health system had the infrastructure, staffing, and commodities required to deliver essential health services. However, it did not assess how well these services were actually delivered to clients.

To address this gap, Ghana implemented the QoC module in 2025 as the fourth and final HHFA module. This module assesses provider adherence to national and international clinical standards through systematic review of routine facility records. Its purpose is to complement availability and readiness findings with robust evidence on the content and quality of care received by clients. By the quality of clinical processes, the QoC survey directly supports Ghana's commitments under UHC, SDG 3.8, and national priorities for accountability and service delivery improvement.

Scope and Design of the G-HHFA QoC

Scope

The QoC module focused on six priority programme areas aligned with Ghana's health sector priorities and the global HIV, TB and Malaria (HTM) agenda, as well as maternal and reproductive health:

- Antenatal care (ANC)
- Malaria case management in children under five
- HIV Testing Services (HTS)
- Antiretroviral Therapy (ART)
- Prevention of Mother-to-Child Transmission (PMTCT)
- Tuberculosis (TB) services

For each area, assessors reviewed client records to evaluate whether providers adhered to clinical standards of care. Documentation of core processes was assessed, including history-taking, physical examination, diagnostic testing, prescribing, counselling, referral, and follow-up. Indicators were drawn from the global HHFA inventory and adapted through national consultations to align with Ghana's clinical guidelines and service delivery context.

The scope of the assessment was national, covering all 16 regions and 261 districts. Data were collected from both public and private facilities across the health system spectrum, including regional and district hospitals, polyclinics, health centres, clinics, maternity homes, CHPS compounds, and NoP hubs. In total, 1,651 facilities were successfully assessed, making this one of the most comprehensive quality-of-care surveys conducted in Ghana to date.

Design

The G-HHFA QoC employed a facility-based, record-review design, nested within the main HHFA facility sample. Results are nationally representative and can be disaggregated by region, facility type, ownership, urban-rural location, and NoP hubs.

Within each facility, trained assessors used the HHFA CSPro tool on tablets to systematically review eligible client records. Eligibility criteria were standardised and validated through a national workshop.

Eligibility Criteria

Eligibility criteria for record selection were developed in line with the global HHFA guidance and adapted to the Ghanaian health system through a national technical workshop. These criteria ensured consistency across facilities and programme areas, while reflecting national clinical guidelines.

The criteria specified the conditions under which client records qualified for review in each service area (such as minimum visits, diagnostic confirmation, or documentation of enrolment and treatment). By standardising these definitions, the survey safeguarded comparability across facilities, regions, and programmes.

The summary of eligibility criteria applied for each service area is presented in Table 2 below:

Table 2. G-HHFA QoC eligibility criteria

	ANC	UNCOMPLICATED MALARIA	PMTCT
Eligibility (included)	• Attended ANC • ≥ 32 weeks pregnant at most recent visit • ≥ 4 ANC visits	• Children < 5 with diagnosis of malaria OR Have received or been prescribed antimalarials	• HIV+ women with at least 4 ANC visits before delivery • Received PMTCT during ANC • Had a live birth • Delivered at least 8 weeks prior to date of survey
Excluded	• < 32 weeks pregnant • < 4 ANC visits	• Children ≥ 5 years • Admitted as inpatient • Referred to different facility based on outpatient malaria diagnosis, or for any other reason	• Women with no PMTCT during ANC • Women with less than 4 ANC visits before delivery
Source docs for sampling	• Electronic Medical Record System (EMRs) e.g. LHIMS, MCH E-tracker, etc. • ANC client register for facilities with no EMRs or MCH E-tracker	• EMRs (LHIMS, etc.) • Consulting room register for facilities with no EMRs	• EMRs / eTracker • ANC register for facilities with no EMRs or MCH E-tracker (must contain HIV test results)
Sample start	• Start from **28 February 2025**	• Start from **28 February 2025**	• Start from **30 June 2024**
Sample end	• September 2024 (last included month)	• September 2024 (last included month)	• January 2024 (last included month)
Source docs for data extraction	• EMRs or MCH eTracker • MCH record book (MCHRB) for facilities with no EMRs or MCH eTracker. • If 5 sample folders cannot be obtained, extend selection process to Child Welfare Clinic (CWC) for MCH record book	• EMRs (LHIMS etc.) • Consulting room register • Client folder • Lab register • Pharmacy register	• EMRs / eTracker • Registers: ANC, Child health and nutrition, HTC, PNC, Delivery, Community infant and young child feeding, High viral load register
	HIV TESTING SERVICES	**ART (same for < 15 except age)**	**TB**
Eligibility (included)	• HIV test performed • HIV test results documented • Positive or negative result	• Current ART client • Age ≥ 15 years • On national first line ART regimen • Completed at least 6 months of ART	• Pulmonary TB • Age ≥ 15 years • On national first line treatment regimen • On treatment for at least 6 months (may include clients who completed full course of treatment)
Excluded		• Clients lost to follow up or died	• Dropped out or died before completing treatment • Referred to a different facility for treatment • Restarted TB treatment after a relapse.
Source docs for sampling	• HTC register	• EMR (ART eTracker) • ART client register for facilities with no eTracker	• Facility TB treatment register
Sample start month	• Start from **28 February 2025**	• Start from **31 July 2024**	• Start from **31 July 2024**
Sample end month	• September 2024 (last included month)	• January 2024 (last included month)	• January 2024 (last included month)
Source docs for data extraction	• HTC register	• ART eTracker • ART client register • HTC register • Initial assessment form	• Facility TB treatment register • Register of presumed TB patients • Patient card • Register of TB contact investigation and TB preventive therapy

These criteria were applied consistently across all sampled facilities to ensure that the records reviewed were representative of routine clinical practice.

Sampling facilities and survey weights for the QoC Survey

Sampling for the QoC survey relied upon the random sample list for the HHFA facility audit survey in 2021. This section of the report describes all the health facilities that were included in the final facility list for the QoC survey uploaded into the CSPro application.

Methodology

To arrive at the sample listings of 1752 facilities used in the QoC survey (Table 1), all of the random sample of facilities without NOPs in the 2021 HHFA survey were carried over to the QoC survey list (1193). The list was further updated with all 420 Hubs (Table 2). Out of the 420 Hubs, 195 Hubs (Table 3) were sampled and paired with 196 Spokes (Table 4). However, an additional 139 Spokes were added to the list as they were not sampled originally. This adds up to the total sample list of facilities of 1752 as in Table 1.

The number of facilities surveyed is presented on Tables 5,6,7 and 8 below. Of the total 1752 facilities, 1641 were surveyed (Table 5). The remaining 111 facilities were either closed or not found. The number of Hubs sampled is 411 with 9 of them not surveyed (Table 6). Similarly, only 190 out of 195 and 172 out of 196 sampled Hubs and Spokes were surveyed (Tables 7 and Table 8 respectively).

Sample weighting

As was carried out in the 2021 HHFA survey, the sample weights for the QoC survey were based on an updated sampling frame of health facilities (10,630) from the DHIMS platform as shown below on Table 9.

The previous sampled list of facilities included all Regional and District Hospitals and Polyclinics selected a priori. However, Health Centres, Clinics and CHPS compounds were randomly sampled proportional to their respective regional distribution.

Following the survey guidelines, the sampling weights were determined as a ratio based on the total number of facilities, by region and type, and the numbers surveyed.

Sample Size and Sampling Procedure

The QoC survey employed a two-stage sampling design to ensure national representativeness and precision at the facility level.

Stage 1: Facility Selection

A total of 1,752 facilities were sampled, of which 1,651 were successfully assessed, reflecting a 95 percent completion rate. The sampling frame was based on the DHIMS2 Master Facility List, with supplementation from programme-specific registers.

- **Regional and district hospitals:** All 16 regional hospitals and 139 district hospitals were purposively included because of their central role in referral and comprehensive service delivery.
- **Polyclinics and NoP hubs:** All 63 polyclinics and 604 NoP hubs were fully included, recognising their unique role in integrated and urban service delivery.
- **Other facility types:** A representative sample of health centres, CHPS compounds, clinics, maternity homes, and private hospitals was drawn to ensure diversity across ownership, location, and service type.

This sampling approach ensured inclusion of first-contact community-based service points (CHPS), intermediate-level primary care providers (health centres), community-level private facilities (clinics and maternity homes), and higher-level referral facilities (district and regional hospitals).

Table 3. Facility counts by type

Facility Type	Number
Regional hospitals	16
District hospitals	139
Polyclinics	63
NoP hubs	604
Health centres	233
CHPS compounds	392
Clinics	201
Maternity homes	72
Private hospitals	32
Total sampled	**1,752**
Total assessed	**1,651**

Stage 2: Client Record Selection

Within each sampled facility, assessors identified eligible client records based on the nationally standardised criteria (see Table 2). Records were drawn from multiple sources, including registers, patient files, and electronic trackers (e.g., ANC registers, ART e-Tracker, HTS registers, TB treatment cards).

For each service area, ten eligible records were listed using systematic random sampling, with a coin toss applied to determine the starting point. From this list, five records per service area were extracted and reviewed. If selected records were unavailable, replacements were drawn from the remaining eligible records, and reasons for replacement were documented to minimise bias.

The facility was the unit of analysis. While data were abstracted at the client level, results are presented as facility-level averages, weighted and aggregated to generate regional and national estimates. (The indicator prefix, however, remains "percentage of clients…")

This approach yielded a balanced dataset across regions, facility types, ownership categories, and urban-rural locations, ensuring robust representativeness.

Sample Size Determination

Sample size determination for the 2025 G-HHFA QoC module was guided by the need to generate nationally representative estimates, while also ensuring sufficient precision for comparisons across facility types, ownership, regions, and urban-rural strata.

Key considerations included:

- Expected proportions for core indicators such as ANC clients receiving blood pressure checks or malaria cases with diagnostic confirmation before treatment.
- Desired margin of error of ±5 percentage points at the national level.
- Design effect to account for clustering of records within facilities.
- Anticipated non-response, including closed facilities and missing records.
- Operational feasibility, balancing statistical requirements with fieldwork resources.

Based on these assumptions, the final design included:

- 1,752 facilities sampled, of which 1,651 were successfully assessed (95% completion rate).
- Ten records listed per service area per facility, with five extracted for review, yielding tens of thousands of records across the six programme areas.

This approach ensured that the dataset was both statistically robust and operationally feasible, providing high-quality evidence for national monitoring and programme planning.

Facility Categories

The 2025 G-HHFA Quality of Care (QoC) module assessed facilities across the full spectrum of Ghana's health system to ensure representativeness and capture differences in the quality of service delivery.

- **Hospitals:** Regional and district hospitals were included in the Quality of Care assessment to capture service delivery at the secondary level of Ghana's health system. These hospitals serve as referral points for health centres, clinics, and CHPS compounds and are responsible for providing a broader range of outpatient and inpatient services. Their inclusion made it possible to assess adherence to national standards of care and the quality of clinical processes in settings with greater diagnostic and treatment capacity, contributing to a more complete understanding of quality across different levels of service delivery.
- **Health centres**: Present in nearly every district, health centres form the backbone of primary care delivery. They were sampled to assess quality at the core of first-line service delivery, including outpatient care, maternal and child health, and communicable disease management.
- **Clinics and maternity homes**: Both public and private clinics and maternity homes were included to reflect the diversity of community-level service delivery and the significant role of private providers, especially in maternal and reproductive health.
- **Community-based Health Planning and Services (CHPS) compounds**: As Ghana's first-contact community-based service points, CHPS compounds are critical for assessing adherence to standards at the most decentralised level, where many clients initiate care.
- **Networks of Practice (NoP) hubs**: All designated NoP hubs were fully included, recognising their importance in Ghana's new hub-and-spoke service delivery model. Assessing these facilities provides critical evidence to guide the implementation and scale-up of integrated, networked primary health care.

Together, these categories ensured that the survey captured the full continuum of service delivery, from the most decentralised community units to intermediate-level hubs and referral facilities.

Data Collection and Analysis

Instrument for Data Collection

The QoC questionnaires were adapted from the global HHFA tool and aligned with Ghana's clinical guidelines and programme priorities. Each sub-questionnaire included eligibility filters, sampling instructions, and structured fields for record abstraction.

Ghana-specific questions were added during the national adaptation workshop and coded distinctly from the core international indicators.

The questionnaires were programmed into the Census and Survey Processing System (CSPro) data collection application and deployed on tablets. This electronic platform enabled real-time data entry, built-in skip logic and validation checks, GPS verification of facilities, and daily synchronisation with central servers for quality monitoring.

Fieldwork Implementation

Data collection was carried out across all 16 regions by trained assessors, supported by regional supervisors and a central coordination team. Daily supervision, electronic dashboards, and remote troubleshooting ensured adherence to protocols and consistency in data capture.

The table 4 below summarises the regional distribution of facility closures and facilities assessed. Of the 1,752 facilities sampled, 1,651 were successfully assessed, while 101 were closed or non-functional at the time of the survey.

Table 4. Spatial distribution of facilities assessed by region

Region	Facility closed	Facilities assessed
Ahafo	3	33
Ashanti	11	217
Bono	1	81
Bono East	3	70
Central	2	147
Eastern	10	221
Greater Accra	31	168
North East	1	34
Northern	2	109
Oti	3	52
Savannah	2	45
Upper East	22	83
Upper West	0	90
Volta	3	115
Western	3	120
Western North	4	66
Total	**101**	**1,651**

Analytical Approach

All data were synchronised daily and subsequently cleaned, validated, and analysed using the HHFA Indicator Inventory and Analysis Platform. The platform contains standardised definitions, computation logic, and templates, ensuring consistency with international HHFA outputs while reflecting Ghana's adapted indicators.

Facility-level adherence scores were computed, weighted, and aggregated to generate regional and national estimates. Outputs included standardised tables, graphs, and maps disaggregated by facility type, managing authority, urban-rural location, and NoP hubs.

HHFA QoC Questionnaire Structure

The structure of the QoC questionnaires reflected Ghana's health sector priorities and the global HIV, TB, and Malaria (HTM) agenda. The module was adapted from the global HHFA tool to align with national clinical guidelines and comprised six service-specific record review sub-questionnaires covering ANC, malaria in children under five, HIV HTS, ART, PMTCT, and TB.

Each sub-questionnaire was designed to assess provider adherence to clinical standards of care through systematic review of routine client records. Core domains included:

- History-taking and physical examinations
- Laboratory investigations
- Treatment and preventive interventions
- Counselling and referrals
- Documentation and follow-up

The instruments incorporated eligibility filters, systematic sampling protocols, and structured fields for record abstraction. Source documents included registers, patient files, and electronic trackers such as the ANC register, ART e-tracker, HTS register, and TB treatment cards.

This structured design enabled the generation of standardised and comparable quality-of-care indicators across services, facilities, and regions. By focusing on the content and quality of care processes, the QoC questionnaires provided robust evidence on whether clients received care consistent with Ghana's clinical standards and international benchmarks.

Recruitment and Training of the Survey Team

The successful implementation of the G-HHFA Quality of Care (QoC) module required a well-structured, multidisciplinary team supported by strong governance arrangements. Oversight was provided through a Steering Committee and Technical Coordinating Committee comprising the Ghana Health Service (GHS), Ministry of Health (MoH), WHO, CHAG, development partners (USAID, World Bank, UKFCDO), and other stakeholders. These committees ensured technical guidance, stakeholder buy-in, and alignment with sector priorities.

Team Composition

A multidisciplinary national survey team was constituted to oversee the management and implementation of the G-HHFA QoC survey. The team brought together technical expertise in survey methodology, clinical practice, public health, data management, and programme coordination. The composition included:

- **Survey Manager and Assistant**: Appointed by the Director of PPMED, responsible for day-to-day coordination, planning and troubleshooting during implementation.
- **Statistician**: Designed the sampling framework, mapped facilities across regions, and provided technical oversight for analysis.
- **Data Managers and Analysts (5)**: Experts in software development and health information management who supervised the CSPro data system, ensured secure data storage, oversaw daily synchronisation, and supported cleaning and analysis.
- **CSPro Expert**: An international consultant recruited by WHO to configure the CSPro application, manage synchronisation, and provide remote support during data collection and analysis.
- **National Supervisors**: Drawn from MoH, GHS leadership, and key programmes, who conducted spot-checks and ensured accountability.
- **Team Leads**: Health Information Officers selected from among assessors, who coordinated facility entry, liaised with facility managers, assigned sections of the questionnaire, and ensured data synchronisation.
- **Data Collectors/Assessors**: Doctors, public health officers, and health information officers nominated by Regional Directors of Health Services. They were formally designated as “assessors” to underscore their professional responsibility as reviewers of clinical records and judges of adherence to care standards.

- **Facilitators**: Three facilitators from WHO and seven from GHS with expertise in clinical care, public health, health planning, and health information management. They led the training of assessors and reinforced methodological and ethical standards.

This team structure reflected a deliberate balance between international technical support and national ownership, ensuring capacity-building within Ghana's health system.

Training of Field Workers

Prior to deployment, a national training-of-trainers (ToT) workshop was conducted to ensure a common understanding of the QoC module, strengthen technical skills, and build capacity for high-quality data collection. The training was cascaded to team leads and assessors to standardise practices across all regions.

Key training components included:

- Module objectives and methodology: Orientation to the purpose, scope, and design of the QoC module.
- Questionnaire familiarisation: Detailed review of the six sub-questionnaires, domains of care assessed, and Ghana-specific adaptations.
- Eligibility criteria and sampling protocols: Guidance on applying inclusion rules consistently across facilities, linked to the national eligibility criteria (Figure 2).
- Data abstraction skills: Practical sessions with role-plays, simulations, and supervised exercises using ANC, malaria, HIV, TB, and ART registers to replicate real field conditions.
- Use of CSPro tablets: Training on logging in, skip logic, error prompts, daily synchronisation, and troubleshooting common technical issues.
- Quality assurance procedures: Emphasis on monitoring replacement cases, documenting reasons for missing data, and applying validation checks.
- Ethical safeguards: Reinforcement of confidentiality protocols, including destruction of sampling lists after use and assurance that no personal identifiers were removed from facilities.

Practical exercises reinforced assessors' ability to correctly identify eligible records, extract data without bias, and ensure completeness of documentation. Lessons from the pre-test were integrated into the curriculum, improving questionnaire flow and enhancing assessors' proficiency in real facility settings.

By the end of the training, assessors were fully equipped with standard operating procedures, quick reference guides, and troubleshooting manuals, and had completed simulated field visits to prepare them for national deployment.

Data Assessors

Assessors were central to the QoC module. Unlike previous surveys where data collectors simply extracted facility information, the QoC survey required assessors to act as professional reviewers of clinical records. Their role involved:

- Applying eligibility criteria to identify appropriate client records.
- Judging adherence to clinical standards, completeness of documentation, and reliability of extracted data.
- Documenting replacements and reasons for missing or incomplete records.
- Ensuring confidentiality and data integrity at all times.

The training and redefinition of their role as *assessors* elevated expectations of professional responsibility and enhanced the credibility of the dataset. Despite challenges such as difficult terrain, transport delays, and inconsistent record-keeping practices, assessors ensured that a high-quality, nationally representative dataset was generated.

Practical exercises reinforced assessors' ability to correctly identify eligible records, extract data without bias, and ensure completeness of documentation. Feedback from pre-tests was integrated into the training curriculum, improving both the flow of questionnaires and the assessors' proficiency.

Role of Assessors

Assessors were central to the QoC survey. Beyond data entry, they applied clinical and public health expertise to evaluate provider adherence to standards as reflected in routine records. Their work was often carried out under challenging conditions, such as difficult terrain, transport delays, and poor documentation practices. Nonetheless, their contributions were critical in producing a high-quality, nationally representative dataset on quality of care in Ghana.

Pre-testing of Questionnaire and Editing of Pre-tested Questionnaire

Before the nationwide roll-out, the QoC questionnaire was adapted from the global HHFA tool to the Ghana context.

Ghana-specific items were added, coded distinctly, and aligned with HHFA numbering to ensure comparability while addressing local programme priorities. Skip logic, response options, and sequencing were carefully reviewed and verified.

A pilot pre-test was then conducted in selected facilities using the CSPro application on tablets. The objectives of the pre-test were to:

- Assess the functionality, flow, and clarity of the adapted questionnaire in real-world facility settings.
- Test the sampling procedures and eligibility criteria to ensure they could be applied consistently across facilities.
- Evaluate assessors' proficiency in using CSPro on tablets, applying skip logic, and synchronising data.
- Identify operational challenges, such as record availability, facility entry, and coordination with staff.

The pre-test provided valuable lessons. Feedback from assessors and supervisors highlighted areas where question wording required clarification, additional examples were needed, or skip logic needed refinement. It also confirmed the importance of reinforcing practical training on record sampling and data abstraction.

As a result, several refinements were made:

- Wording adjustments were introduced to reduce ambiguity and improve flow.
- Training materials were updated with additional instructions and case examples.
- CSPro programming was revised to correct skip errors, strengthen validation checks, and enhance synchronisation reliability.

Through this iterative process, the questionnaire and training package were strengthened, ensuring that the national survey was both technically sound and operationally feasible. The pre-test thus served as a critical bridge between the adaptation of the tool and its deployment, directly improving the quality of data collected in the 2025 QoC survey.

Data Management and Quality Assurance Procedures

A multi-tiered system of data management and quality assurance was embedded throughout the implementation of the QoC module to ensure accuracy, reliability, and completeness of the dataset. Quality safeguards were applied at every stage, from field-level data collection to centralised processing and validation.

At the field level, regional supervisors monitored assessors daily, conducting spot-checks within facilities to verify correct application of sampling protocols and consistency of record abstraction. The use of CSPro tablets added a further layer of assurance, with built-in skip logic, error prompts, and range checks to minimise data entry errors in real time.

At the national level, daily data synchronisation from tablets to central servers enabled continuous monitoring. A live dashboard provided real-time updates on survey progress, including submissions, inconsistencies, and facility completion rates, disaggregated by region, facility type, and ownership. This visibility allowed rapid feedback to field teams and timely corrective action where required. National data managers also monitored data security, oversaw synchronisation processes, and resolved technical challenges as they arose.

Independent oversight was provided by WHO technical experts, who reviewed workflows, verified sampling consistency, and validated uploaded data.

Following fieldwork, the dataset underwent a structured process of cleaning and alignment with the HHFA indicator inventory. This final stage included duplicate checks, reconciliation of inconsistencies, and standardisation across programme areas. Only after this process was the dataset locked for analysis.

Through this layered approach, combining local supervision, digital safeguards, national monitoring, and international technical oversight, the QoC survey achieved one of the most robust facility-level datasets ever generated in Ghana, providing a credible foundation for evidence-based policy and planning.

Data Processing and Storage

All data collected through the QoC module were uploaded daily onto secure central servers hosted at the Policy, Planning, Monitoring and Evaluation Directorate (PPMED) of the Ghana Health Service. Access was strictly controlled to ensure data confidentiality and integrity.

Data processing followed a structured, multi-step approach:

- GPS validation: Verification of facility coordinates against the national DHIMS2 Master Facility List to confirm correct location of surveyed facilities.
- Classification corrections: Standardisation of facility type, ownership, and managing authority to align with official classifications.
- Adjustment for closed or non-functional facilities: Identification and coding of facilities that were closed, destroyed, or otherwise non-operational during fieldwork, ensuring accurate denominator counts.
- Weighting: Application of sampling weights to adjust for the survey design and ensure representativeness across regions, facility types, ownership categories, and urban–rural strata.

To strengthen the reliability of the dataset, a dedicated data processing and validation workshop was held with participation from the GHS, WHO Ghana, WHO AFRO, national supervisors, and data managers. This exercise confirmed completeness, corrected inconsistencies, and established final cleaning rules prior to analysis.

Through these procedures, the dataset was standardised, validated, and locked, providing a high-quality evidence base for subsequent analysis.

Data Analysis

Analysis of the QoC dataset was conducted using the HHFA Data Analysis Platform. This platform provided standard definitions, computation logic, and templates to ensure comparability with global HHFA outputs, while also allowing for Ghana-specific adaptations.

Facility-level weighted estimates were produced for all indicators, accounting for the survey design and ensuring representativeness across regions, facility types, ownership, and urban–rural strata. Outputs were generated as standardised tables, graphs, and maps, which served as the foundation for descriptive and comparative analyses.

The analytical approach focused on four key dimensions:

- National and regional adherence patterns: Measuring the extent to which providers followed clinical standards across service areas and geographic regions.
- Equity gaps: Comparing results by region, managing authority, and urban–rural classification to highlight disparities in quality of care.
- Facility performance variations: Assessing differences across facility types, from CHPS compounds to regional hospitals, to understand where gaps are most pronounced.

By combining these dimensions, the analysis offered a nuanced picture of service delivery in Ghana. It not only identified where care was available but also assessed whether care met the required standards, thereby providing actionable evidence to inform policy reforms, resource allocation, and accountability for UHC.

Ethical Considerations

The G-HHFA QoC module involved a systematic review of client records but did not include direct interaction with patients. All data collection adhered to national ethical standards and WHO guidance. Personal identifiers were never extracted from records or uploaded onto electronic devices. Sampling lists containing client names were destroyed immediately after record selection to protect confidentiality. Data were stored on secure servers at PPMED, with controlled access limited to authorised personnel. These safeguards ensured that the survey maintained the highest levels of privacy and ethical integrity while generating robust evidence.

Limitations of the QoC Module

While the 2025 G-HHFA QoC module provides one of the most comprehensive assessments of clinical quality in Ghana, certain limitations should be acknowledged. First, the survey relied on routine documentation in client records; as such, incomplete or inconsistent entries may underestimate the actual care provided. Second, the module was designed to assess adherence to standards of care but did not capture patient-reported outcomes or perceptions of quality. Despite these constraints, the survey offers a nationally representative and methodologically rigorous evidence base on the quality of routine service delivery, complementing existing data on service availability and readiness.

Part 2: Findings of the G-HHFA Quality of Care Assessment

General service availability

The Quality of Care (QoC) record review was implemented in all sampled health facilities nationwide. For each programme area, data collection proceeded only where the service was available in the facility, as determined by the filter questions in the QoC questionnaire. Table 5 presents the number and percentage of facilities offering services in each programme area. Overall, service availability was highest for malaria (95.4%) and antenatal care (87.3%), followed by tuberculosis (63.7%) and HIV-related services. While 73.0% of facilities provided PMTCT services, fewer offered HIV testing (60.7%) or ART (32.9%), reflecting the typical referral structure within Ghana's health system.

Table 5: Service availability across programme areas among the facilities in the sample

Service Area	Facilities Offering Service	Percentage (%)
ANC	1433	87.3
Malaria	1565	95.4
HIV PMTCT	1198	73.0
HIV Testing	996	60.7
HIV ART	540	32.9
TB	1046	63.7

Availability of outpatient and inpatient services

Table 1.1.1.1. presents the distribution of outpatient and inpatient services among the facilities assessed. The data reflect responses from 1,641 facilities.

Ninety nine% of facilities assessed offer outpatient services. This finding is consistent across all regions, with values ranging from 98 to 100%. Inpatient services are available in 14% of assessed facilities.

Facility type is a key determinant of inpatient service availability. Based on the facility types assessed, inpatient services are expected in regional, district and other general hospitals, some polyclinics and clinics. Regional and district hospitals recorded 100 and 98 percent inpatient service availability, respectively. Other general hospitals and polyclinics also show high availability, at 85 and 94 percent.

The observed variation in inpatient service availability across hospital categories reflects inconsistencies in facility classification and naming conventions. Some districts lack officially designated district hospitals, while certain private or lower-level facilities identify themselves as hospitals, and others function as de facto district hospitals without formal designation. According to policy standards, only 138 facilities nationally meet the criteria for district hospitals, which partly explains the differences observed. However, as expected inpatient services are limited in health centres (13 percent), clinics (36 percent) and CHPS compounds (1 percent), which form the backbone of primary care.

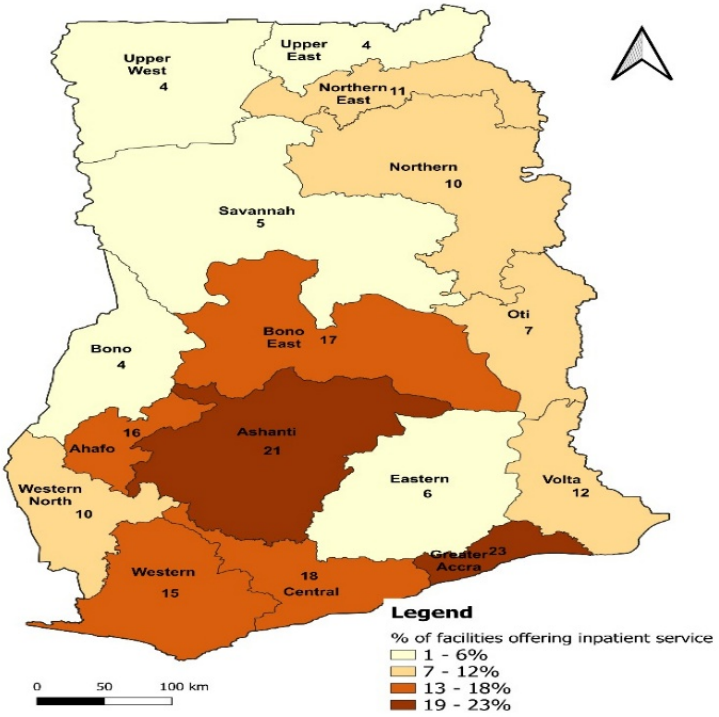

Figure 1.1: Availability of Inpatient Services across regions among facilities assessed

Across all facility managing authorities, results for any outpatient service are high, ranging from 99 to 100%, while higher proportions of nongovernmental facilities offered inpatient services compared with the Government/public category. A higher percentage of urban facilities were observed to offer inpatient services due to the predominant number of hospitals in urban areas, compared to rural areas where facility types are predominantly health centres and CHPS.

Understanding the HHFA QoC results

The following programme-specific sections present discussions of the results of the HHFA quality of care record review survey. The results are displayed as indicators in tables, graphs and/or maps. Detailed tables are found in the Annex.

The HHFA quality of care indicators are expressed as "Percentage of clients with…"

Note that in all the standard HHFA quality of care tables, "N" represents the number of facilities in which the programme-specific record reviews were conducted and not the number of records assessed.

Based on the findings in the five individual client records assessed for each technical programme in each facility, a facility average is calculated for each indicator. National level indicator averages are then calculated based on the averages across all facilities. Similarly, indicator averages are also calculated by stratifier. Note that in the HHFA quality of care tables, the indicator is always "Percentage of clients…" and not "Percentage of facilities" (as in the readiness tables of the HHFA facility audit survey).

For each of the six technical areas assessed, analysis of the survey data has produced an overall quality table ("Quality of X services"). This table represents the key service components that each client should receive. Each component is reflected by an indicator.

In addition to the overall quality table, there are also further tables with indicators of other quality-related aspects of the service. Selected graphs and maps are also used to highlight specific findings.

Antenatal Care (ANC)

Quality of ANC services

Table 2.1.1.1. presents the quality of ANC services across health facilities in Ghana, based on data from 1,427 facilities nationwide.

The indicators measured include early ANC initiation (first contact before 16 weeks' gestation), frequency of ANC contacts (at least four and at least eight), and provision of essential services during ANC visits, such as blood pressure measurement, anaemia screening, syphilis and HIV testing, iron and folic acid supplementation, and deworming.

Women and girls should report to the health facility as soon as they miss their menstruation for assessment, diagnosis and initiation of care. Fig.1.2, however, shows that only 47% of women initiated ANC during the first trimester, despite nearly all women receiving at least four ANC contacts during the pregnancy (99%).

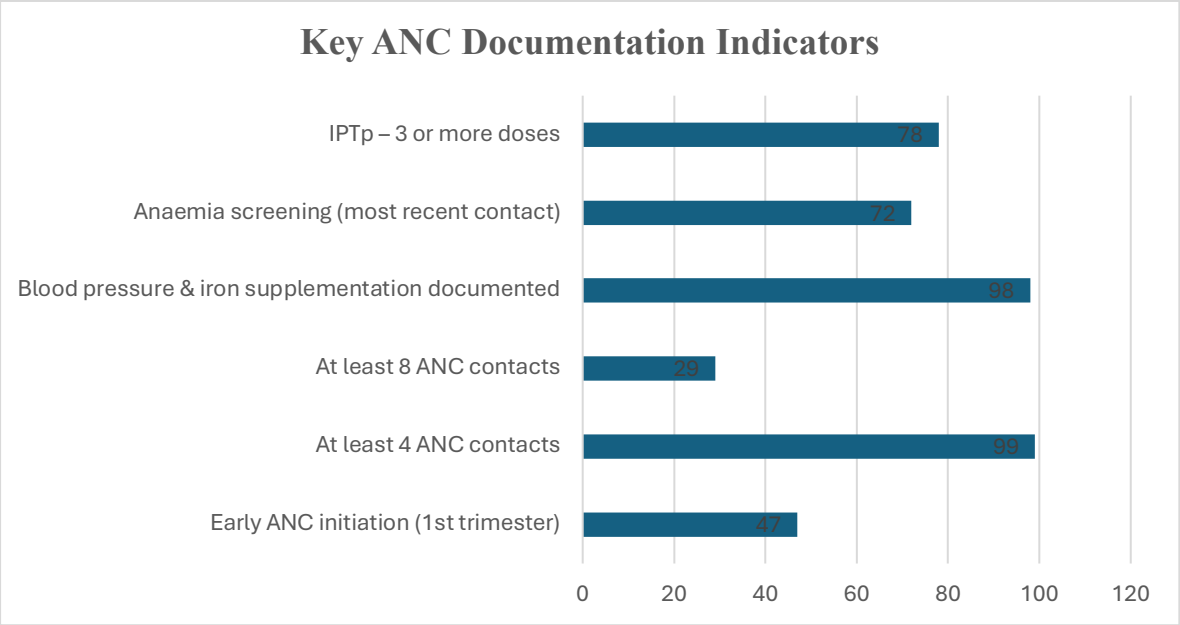

Fig. 1.2 Key ANC documentation Indicators

It is evident that, even though services exist in the facilities, both the HHFA (47%) and DHIS2 (54%) data reveal that just about half of women book ANC early. Both HHFA (99%) and DHIS2 (85%) data sets also show high performance in ANC fourth visits. Uptake of eight or more contacts was limited to 29% (HHFA) and 44% (DHIS2), reflecting challenges in adherence to WHO's updated ANC guidelines.

Performance of other indicators was generally high, with blood pressure measurement and iron supplementation reaching 98%. Anaemia screening at most recent contact (72%) and deworming (74%) were less consistent, while HIV and syphilis testing exceeded 90%, though occasional shortages of HIV test kits may explain slight differences in uptake (DHIMS2).

While the survey assessed anaemia screening at most recent ANC contact (Fig 1.3), Ghana guidelines do not require anaemia screening at each contact.

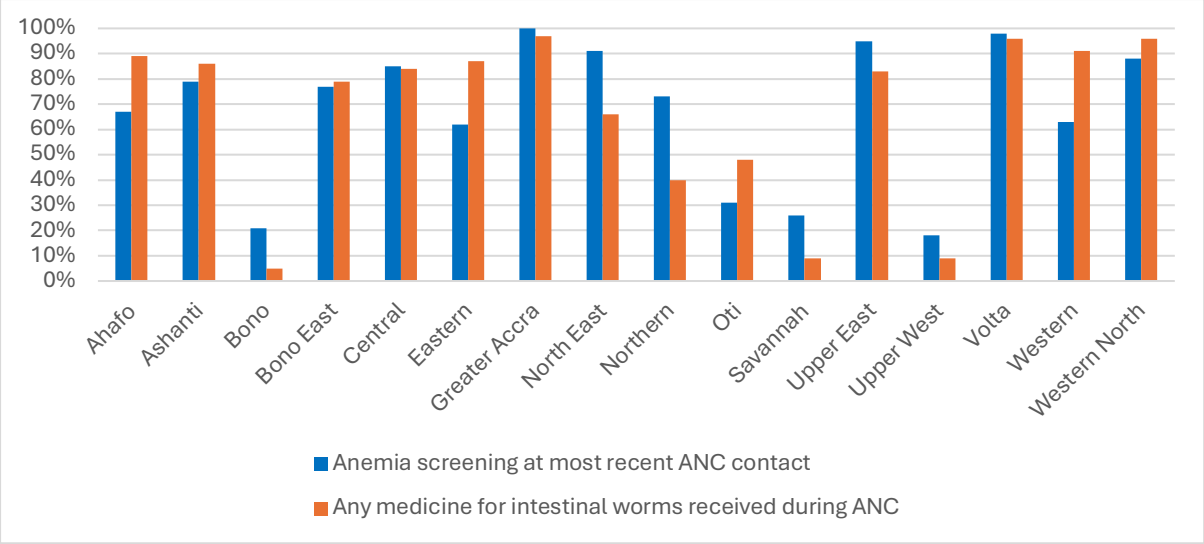

Figure 1.3: Anaemia screening and intestinal worm medication during ANC

DHIS2 data show that pregnant women with haemoglobin checked at 36 weeks in DHIS2 is 98%, reflecting a high level of adherence to Ghana guidelines.

Delayed initiation of ANC is shaped by knowledge, cultural, financial, and health system barriers. Many women are unaware of the need to start care in the first trimester, often waiting until pregnancy is visible or after quickening (GSS, GHS, & ICF, 2023). Cultural secrecy, linked to fears of witchcraft, stigma, or miscarriage, particularly affects adolescents and unmarried women (Exavery et al., 2013). Although ANC is free, indirect costs such as transport and time away from work discourage early visits, especially in rural areas (Ganle et al., 2014). Long waiting times, staff shortages, particularly midwives at CHPS facilities, and weak diagnostic capacity further reduce motivation for timely care (Mugo et al., 2018). Perceptions of need also influence decisions, as multiparous women often delay because of prior experience, while adolescents face additional barriers of stigma and lack of family support (Nyarko et al., 2022). These factors together explain persistent delays in early ANC initiation.

In Table 2.1.1.1 regional and facility-type disparities highlight inequities in ANC service delivery. Oti (71% and Upper West (69%) reported the highest levels of early initiation, while North East (23%) and Bono (24%) lagged significantly. Similarly, uptake of eight or more contacts ranged from just 6% in North East to 54% in Bono East. Anaemia screening was particularly low in Bono (21%), Savannah (26%), and Upper West (18%), while Volta and Greater Accra achieved more than 90%. Deworming varied from as low as 5% in Bono to 97% in Greater Accra.

With respect to facility type, regional hospitals documented higher rates of early initiation (71%) and eight or more contacts than district hospitals, CHPS and health centres (52, 56 and 47% respectively). Further studies should be conducted into the reason why women are initiating ANC at higher levels of care rather than at primary healthcare facilities. On the other hand, clients with at least four contacts exceeded 90% across all facility types, reflecting the expansion of CHPS compounds and community-based maternal health services.

These findings suggest that while Ghana has achieved a very high level of basic contacts and selected interventions among registered ANC clients, major gaps remain in early initiation and deworming services.

Client care process for IPTp

Table 2.1.1.2 presents the Quality of ANC processes related to intermittent preventive treatment for malaria in pregnancy (IPTp) and malaria prevention through insecticide-treated nets (ITNs). The table includes data from 1,427 facilities and focuses on three key indicators: the percentage of ANC clients who received three doses of IPTp, the timing of the first IPTp dose (after 16 weeks' gestation), and the receipt of ITNs or vouchers during ANC. While generally encouraging, the results also highlight mixed performance across the regions of Ghana, reflecting both progress and persistent challenges.

At the national level, 88% of ANC clients received the first IPTp dose after 16 weeks' gestation, suggesting that initiation is widely integrated into routine ANC services. While timely initiation does not necessarily translate into completion of all required doses, 78% of ANC clients received at least three doses (IPTp3), a percentage consistent with Ghana's malaria-in-pregnancy policy targets. This is supported by findings from the Kintampo Health Research Centre, which demonstrate that IPTp3+ provides the strongest protection against placental malaria, maternal anaemia, and low birth weight, with little marginal gain beyond three doses (Hommerich et al., 2019; Desai et al., 2018).

Regional disparities, however, remain substantial. Documented receipt of IPTp3 among ANC clients was exemplary in Volta (97%), Bono East (86%), and Eastern (84%), but lagged in Savannah (55%), Ahafo (64%), and Bono (65%), suggesting challenges linked to sulfadoxine-pyrimethamine (SP) stock-outs, poor documentation, and inconsistent ANC attendance (GSS, GHS, & ICF, 2023).

ITN or voucher distribution showed similar variation: while Oti (97%), Eastern (93%), and North East (93%) achieved high values, Bono recorded only 7%, a striking gap pointing to potentially weak supply chains, documentation errors, or poor integration of malaria prevention into ANC.

At the facility level, health centres, polyclinics, and CHPS compounds achieved the highest percentages of IPTp3 (72–82%) and ITN distribution (73–91%) among ANC clients, underscoring their effectiveness as community-level entry points for preventive interventions.

To address these challenges, programmatic focus should be directed toward strengthening adherence to IPTp protocols, reinforcing provider training, and ensuring timely follow-up visits to support IPTp completion. Supply chain improvements for SP and ITNs are critical, particularly in regions showing low results in the assessment. Enhanced monitoring and supportive supervision can identify bottlenecks and strengthen accountability, while community engagement is essential to encourage early initiation and adherence to ANC attendance schedule. By bridging these structural and behavioural gaps, Ghana can consolidate the gains of IPTp and significantly reduce the burden of malaria in pregnancy.

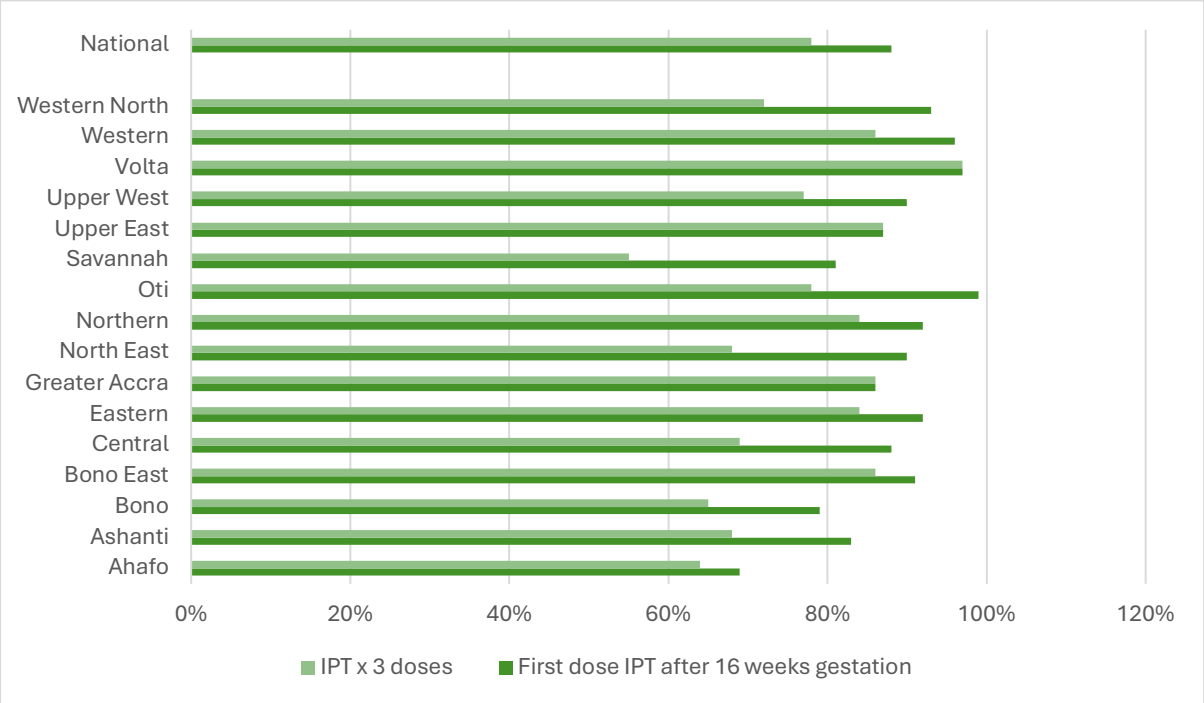

Figure 1.4: Regional Percentages of ANC clients with 3 IPTp doses and First IPTp after 16 weeks' gestation

HIV HTS, ART and PMTCT

This section presents analyses of the documentation of the quality of HIV-related services provided in all levels of health facilities in the country, focusing on HIV Testing Services (HTS), Antiretroviral Therapy (ART) and Prevention of Mother-to-Child Transmission (PMTCT). These records of HIV services provided in the health facilities were accessed at the ART clinics, ANC and Maternity and Laboratory units.

All indicators analysed reflect services in line with the national policy goals: 95% of people living with HIV should know their status, 95% of those diagnosed should be linked to care, and 95% of those on treatment should achieve viral suppression.

Quality of HIV Testing Services

The table is based on data from 997 facilities and assesses four key indicators: documentation of HIV test results, client receipt of results, provision of post-test counselling and condoms received.

Nationally, 99% of clients tested for HIV had their test results recorded and 95% of these clients were documented as having received their results. However, only 71% of HTS clients received post-test counselling and only 4% received condoms.

Service quality in post-test counselling at the regional and district hospitals was high with 99% and 88% respectively. However, documentation of condoms received was still low in these higher-level facilities, 20% and 11% respectively. Seventy percent (70%) of CHPS compounds and 67% health centres, which serve large rural populations, showed documentation for counselling and very low documentation of condoms received (less than 5%). Only 11% of the 997 facilities had documentation for all four indicators reviewed for quality of HTS.

The survey findings are consistent with other studies across sub-Saharan Africa that have reported high levels of testing uptake and results receipt, largely due to the expansion of provider-initiated testing and counselling (UNAIDS,2022, Hensen et al 2016). The findings also align well with the 2022 Ghana Demographic and Health Survey which showed that “nearly all of those who were ever tested received the test results” (Ghana Demographic and Health Survey, 2022)

The limited integration of prevention services into HTS delivery may reduce opportunities for risk reduction and linkage to care. The gaps in post-test services from this assessment have earlier been identified by the national program and has introduced revised data collection tools that ensure the systematic monitoring of post-test prevention services, including counselling and condom distribution.

Table 2.2.1.1. Quality of HIV testing services

Percentage of HTS clients with:

	HIV test results recorded	HIV test results received	Post-test counselling received	Condoms received	N
National	99%	95%	71%	4%	997
Facility type					
Regional Hospital	99%	100%	99%	20%	16
District Hospital	100%	99%	88%	11%	128
Health Centre	99%	91%	67%	5%	424
Other general Hospital	100%	99%	77%	5%	74
Clinic	98%	90%	76%	4%	86
Polyclinic	100%	97%	83%	14%	58
CHPS	100%	96%	70%	2%	211

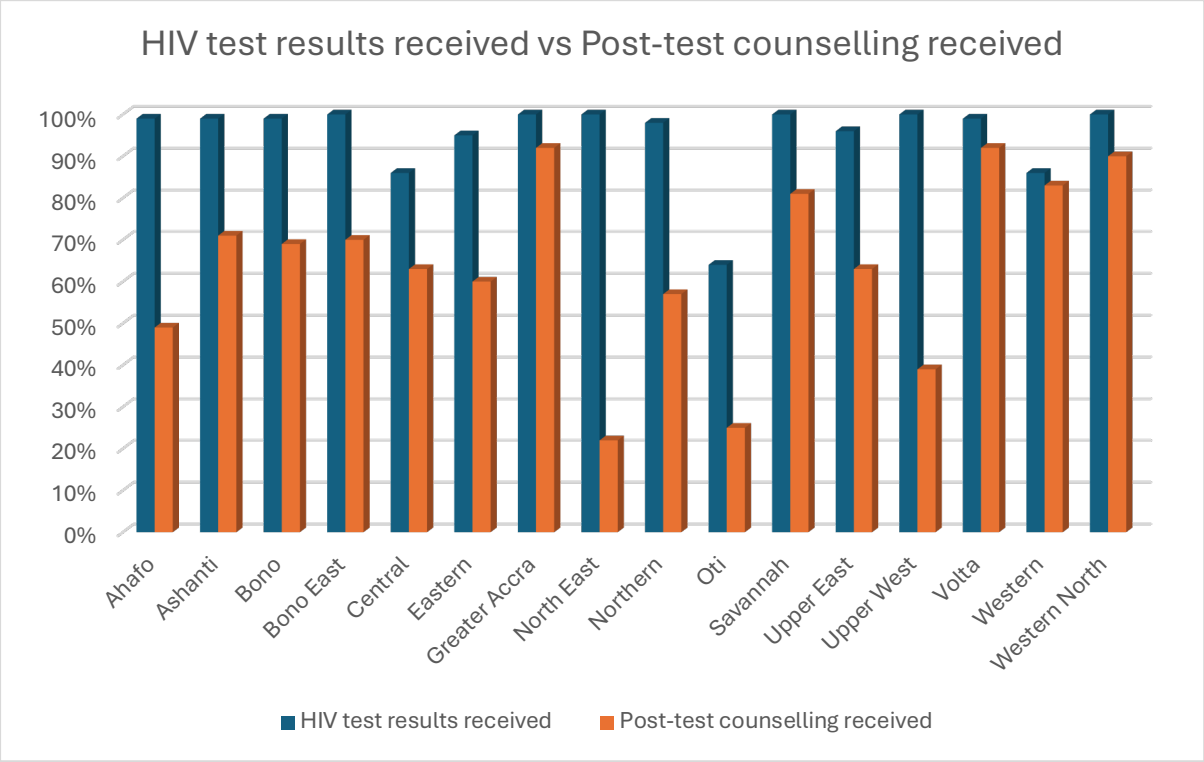

Figure 2.1: HTS Clients with HIV Test Results Vs HTS Clients with Post-Test Counselling Received, by region

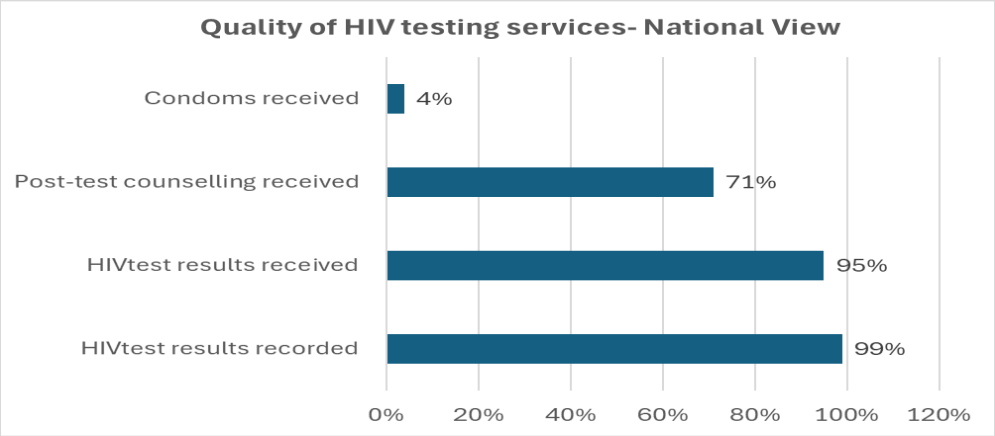

Figure 2.2: Quality of HIV Testing Services, National Level

HIV Positive Clients Enrolled to Care

Table 2.2.1.2 presents the proportion of HIV-positive clients referred to and enrolled in HIV care.

Among the 997 facilities in which the HTS record review was conducted, some clients tested HIV positive in 427 facilities. Among these clients, 82% were referred to or admitted to ART care and support. This number aligns with a global fund commissioned study which showed a linkage to care rate of above 80% for the country.

The gap of almost 20% of HIV positive clients with no documentation of linkage to care and support hinders the national efforts towards ending the HIV epidemic.

To close this gap, urgent action is needed to strengthen referral and linkage to care mechanisms. This includes training providers on linkage procedures and integrating referral tracking into routine monitoring. District health directorates should be supported to coordinate with ART centers and ensure all HIV testing sites including community-based testing activities, have a seamless transition from testing to treatment.

Quality of ART services

Table 2.2.2.1 summarizes the quality of ART services across 540 ART sites in Ghana. Seven key indicators were assessed, focusing on ART initiation, monitoring, and continuity of care. Nationally, 90% of ART clients received a confirmatory HIV test before treatment initiation. Confirmatory HIV test in this case refers to the use of the national three test algorithm. Also, 97% of clients were placed on first line ART regimens aligned with national guidelines.

However, only 6% of clients had a CD4 level measurement before starting ART. ARV adherence status was recorded in 66% of clients. In 35% of clients, viral load testing at six months was documented. Testing for ARV drug resistance was documented in only 14% of clients. Only 18% of clients had documentation of standard screening for TB symptoms at the most recent clinical visit. Standard screening in this case refers to assessment for cough, fever and weight loss. However, in 87% of clients, TB status (active, latent, or negative) was recorded.

Poor documentation practices may in part account for the 10% of clients in which a confirmatory HIV test before treatment initiation was not recorded. This finding aligns with previous monitoring exercises by the NACP, which also identified challenges with documentation and occasional deviations from the national testing algorithm, raising concerns about potential misdiagnosis and its impact on treatment outcomes (NACP, 2022).

Low viral load testing at six months (36%) highlights challenges with adherence to monitoring protocols for clients initiated on ART.

The documented ARV adherence of 66% found in this survey aligns with the 70% reported in a systematic review and meta-analysis of ART adherence in Ghana, which is below the 95% recommended by WHO and UNAIDS for effective viral suppression. Evidence suggests that differentiated service delivery models and psychosocial support interventions can improve adherence (Grimsrud et al., 2020; Ankrah et al., 2021).

The low percentage of clients with standard screening for TB symptoms could reflect both poor documentation as well as substandard care by service providers.

The National TB control Programme in 2023 reported incomplete records at ART clinics as part of findings from their site level monitoring, due to workload, weak supervision, and failure to record negative screenings (NTP Report, 2023). The WHO (2021) has emphasised that consistent documentation is essential for early detection among ART clients and progress toward the End TB Strategy, underscoring the need for provider training, supportive supervision, and electronic records.

To improve ART quality, national programs should enhance training and supervision on adherence and viral load monitoring, and TB screening.

Access to standardised data collection tools limits some of the findings; hence, there is a need to strengthen data systems for tracking clinical milestones and outcomes to ensure universal access to quality ART services. Strengthening patient-centered support remains essential for Ghana to meet the 95-95-95 targets.

2.2.2.1. Quality of ART services

Percentage of facilities with ART clients with:

	Confirmatory HIV test before initiating ART	ART regimen according to national guidelines	Cotrimoxazole (CTX) prophylaxis according to national guidelines	Viral load measured at 6 months on ART	Adherence status recorded at most recent clinical visit	Standard screening for TB recorded at most recent clinical visit	TB status recorded at most recent clinical visit	n
National	90%	97%	56%	35%	66%	18%	87%	540

Viral Load Monitoring

Table 2.2.2.2 presents indicators related to viral load monitoring among clients receiving ART. The analysis is based on data from 540 ART sites and focuses on two key measures: the percentage of ART clients who had a viral load test at 12 months and those with undetectable viral load at their most recent measurement.

Nationally, only 27% of ART clients had a documented viral load test at 12 months and only 10% of clients had an undetectable viral load at their most recent viral load test.

The survey revealed substantial regional variation in viral load testing at 12 months (Fig, 2.3). Western North (96%), Western (79%) and Ahafo (53%) achieved the highest results, Central (9%) and Upper East showing the lowest values for this indicator. The percentage of ART client with undetectable viral ranged from 0% in Upper East to 34% in Ahafo.

These findings underscore critical gaps in viral load monitoring across Ghana's ART program at the time of the survey. The manual transmission of viral load testing results, in practice at the time of the survey, has now been replaced with an electronic viral load data management system. It is expected that the effective implementation of this system will help improve the quality of viral load monitoring.

The country continues to experience barriers to viral load testing such as sub-optimal sample referral system, shortage of reagents, capacity of service providers to collect and label samples properly. The national programs must prioritise addressing these gaps to ensure quality of viral load monitoring. Training and mentorship for clinical staff should emphasise the importance of viral load testing and interpretation.

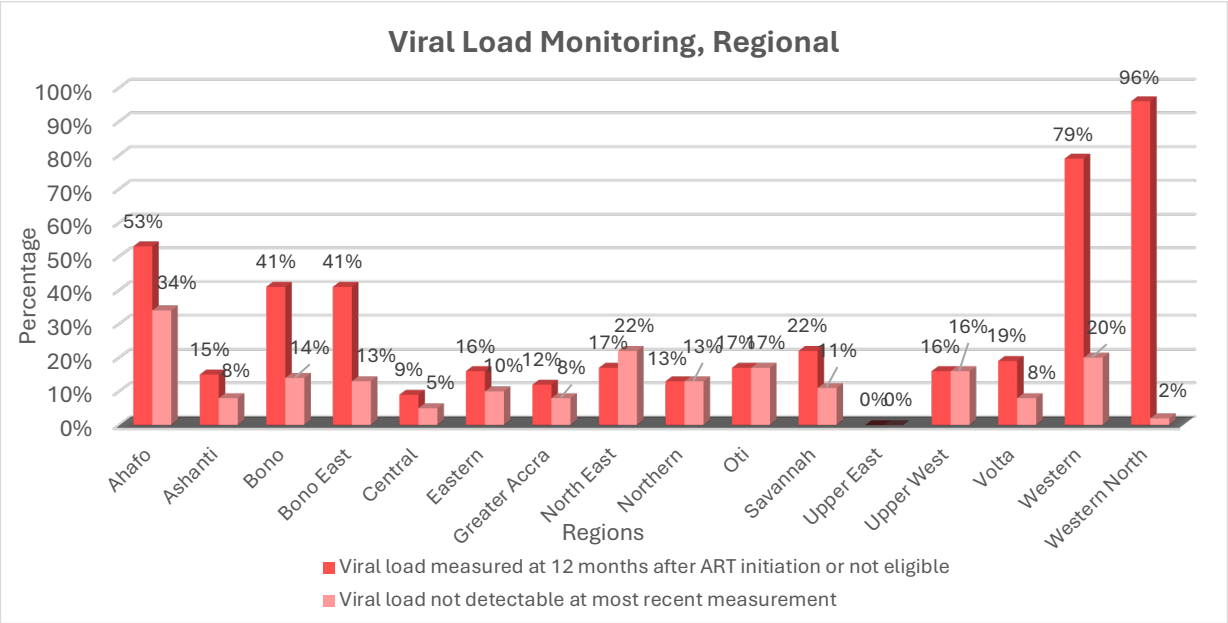

Figure 2.3: Viral Load Measuring at the Regional Level

TB symptom screening, and TB Preventive Therapy

Table 2.2.2.3 presents the status of TB symptom screening, TB preventive therapy and TB exposure among clients receiving ART. The table is based on data from 540 facilities and assesses five indicators related to TB symptom screening, and preventive therapy.

Amongst the ART client records assessed, 76% had documented the cough status of clients, half had documentation of fever status (50%) while 54% and 32% had documentation for weight loss and TB exposure status respectively. Only 17% of clients were documented as being eligible for and receiving TB Preventive Therapy (TPT) with isoniazid.

These findings highlight persistent gaps in TB symptom screening, and preventive treatment among ART clients in Ghana. As reported earlier under quality of ART services, documentation of TB status is high (87%) despite low screening for TB symptoms (18%). This suggests that health care providers may be neglecting to assess for early signs of TB among ART clients.

The low percentage of ART clients (17%) receiving TB preventive therapy substantiates the low TPT coverage (69%) among PLHIV reported from program data for 2024.

To address these gaps, national programs should strengthen TB-HIV service integration by ensuring adherence to routine symptom screening, timely diagnosis, and access to TB preventive therapy. Training and supervision should emphasize the importance of comprehensive TB assessment during ART visits.

2.2.2.3. TB screening and treatment status among ART clients

Percentage of ART clients with:

	Cough status recorded at most recent visit	Fever status recorded at most recent visit	Weight loss status recorded at most recent visit	TB exposure status recorded at most recent visit	Eligibility for and receiving INH preventive treatment	n
National	76%	50%	54%	32%	17%	540
Facility type						
Regional Hospital	76%	46%	49%	40%	24%	16
District Hospital	85%	54%	56%	44%	26%	132
Health Centre	73%	50%	48%	38%	18%	248
Other general Hospital	81%	64%	67%	41%	17%	40
Clinic	81%	52%	53%	22%	21%	21
Polyclinic	86%	65%	66%	30%	18%	55
CHPS	65%	32%	54%	10%	4%	28

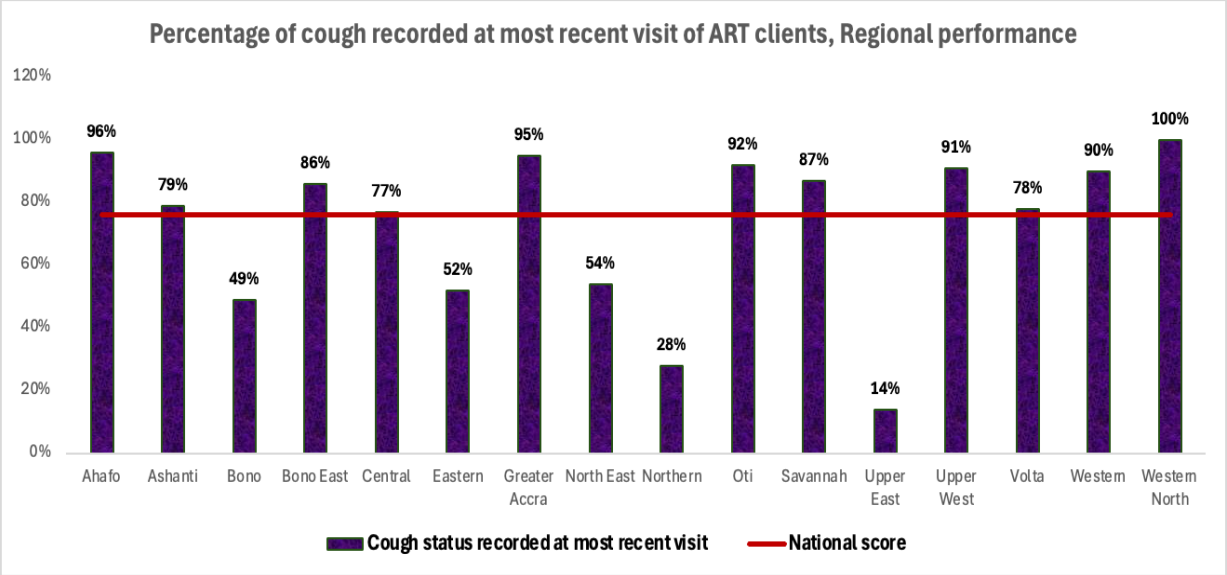

Figure 2.4: Cough recorded at most recent visit of ART Clients, by Regional

Preventing Mother-To-Child Transmission of HIV

Table 2.2.3.1 presents the quality of services for the prevention of PMTCT across health facilities. The table is based on data from 1,197 facilities and assesses six key indicators related to maternal and infant HIV care, including partner testing, prophylaxis for HIV exposed infants, early infant diagnosis, result communication, and cotrimoxazole preventive therapy (CPT) for infants.

The findings highlight notable gaps in documentation, and by implication quality, of PMTCT services reviewed by this survey. Twenty-four percent (24%) of PMTCT client records documented the partner's HIV status or offering HIV testing to the partner, while 56% of the client records had documentation that newborns received timely ARV prophylaxis. Early infant diagnosis (EID) was recorded as provided for 29% of PMTCT clients, while 31% of records documented caregivers' receipt of EID results. Documentation of CPT initiation for infants was low (40%).

These findings highlight persistent gaps in PMTCT service delivery in Ghana. It is important to note that Regional and district-level facilities showed higher levels of documentation for newborn prophylaxis and testing compared to health centres and CHPS compounds. While this is encouraging, as the majority of deliveries occur at these higher-level facilities, it is essential to improve the quality of PMTCT at all levels to ensure equitable access. The low percentage of PMTCT clients with partner HIV testing is a significant hindrance to the country's elimination efforts. Partner notification and testing are pivotal not only to PMTCT but to the attainment of the UNAIDS/WHO first 95 targets.

The national programmes should prioritise and improve the quality of PMTCT services by addressing the gaps highlighted through this survey. There is a need for innovative and integrated capacity building and supervision? for healthcare workers, as well as ensuring that supply chain efficiency, and that data collection tools and systems are in place for monitoring and evaluation of PMTCT indicators.

Table 2.2.3.1. Quality of PMTCT services

Percentage of PMTCT clients with:

	Partner HIV status recorded or note indicating test was offered	Newborn receiving ARV prophylaxis within 3 days of birth	Infant's HIV test (NAT or PCR) done within 8 weeks of birth and test result available	Infant HIV test result returned to caregiver	Infant started cotrimoxazole preventive therapy (CPT) within 8 weeks of birth	n
National	24%	56%	29%	31%	40%	1,197
Facility Type						
Regional Hospital	36%	88%	74%	73%	72%	16
District Hospital	31%	84%	53%	58%	72%	132
Health Centre	20%	50%	20%	20%	34%	501
Other general Hospital	37%	76%	49%	49%	62%	93
Clinic	24%	45%	31%	30%	45%	92
Polyclinic	40%	89%	52%	59%	69%	58
CHPS	12%	26%	0%	6%	0%	305

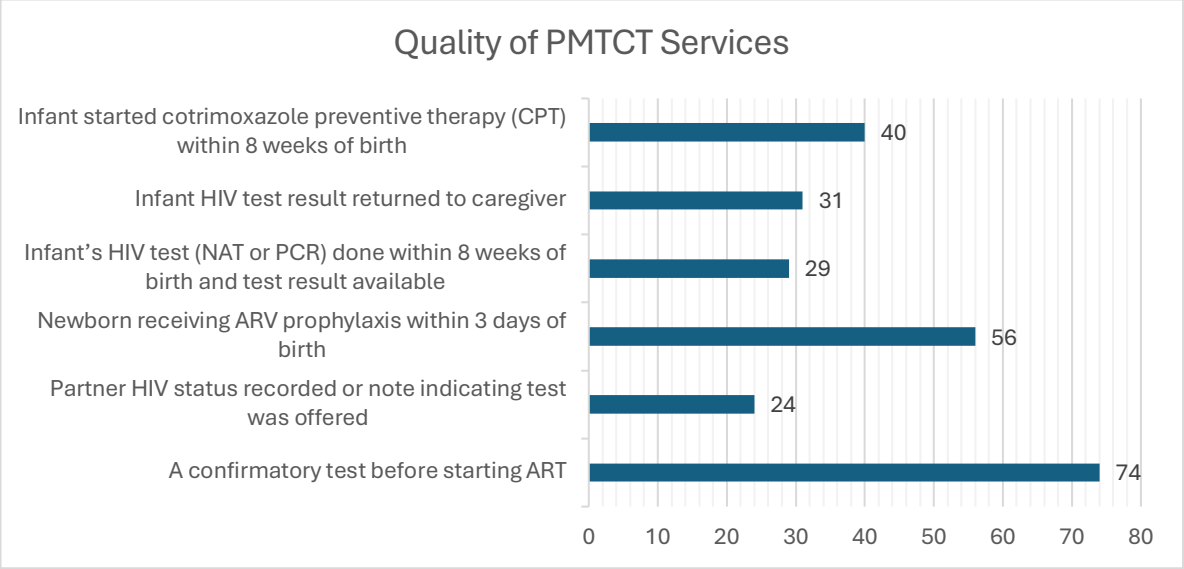

Figure 2.5: Quality of PMTCT Services, National

Maternal HIV treatment during pregnancy and delivery

Table 2.2.3.2 presents the status of HIV treatment during pregnancy and delivery among pregnant women enrolled in PMTCT services in Ghana. The table is based on data from 1,197 facilities and assesses three key indicators: the percentage of clients who had initiated life-long ART prior to attending ANC, the proportion who received ARVs during delivery or were already on life-long ART at the time of delivery, and the viral load status of clients.

Fifty-eight percent (58%) of PMTCT clients were already on life-long ART before attending ANC, while 68% of clients received ARVs during delivery or were already on ART at the time of delivery. Viral load status was documented for only 26% of PMTCT clients, similar to the non-pregnant population in tables 2.2.2.1 and 2.2.2.2 above.

These figures suggest gaps in documentation and by inference quality of care relating to PMTCT services and calls for urgent intervention. However, the 58% of facilities reporting pregnant women on ART before ANC is encouraging as it denotes the progressive maturity of the PMTCT program with more women on ART before pregnancy

2.2.3.2. Maternal HIV treatment during pregnancy and delivery

Percentage of facilities with PMTCT clients with:

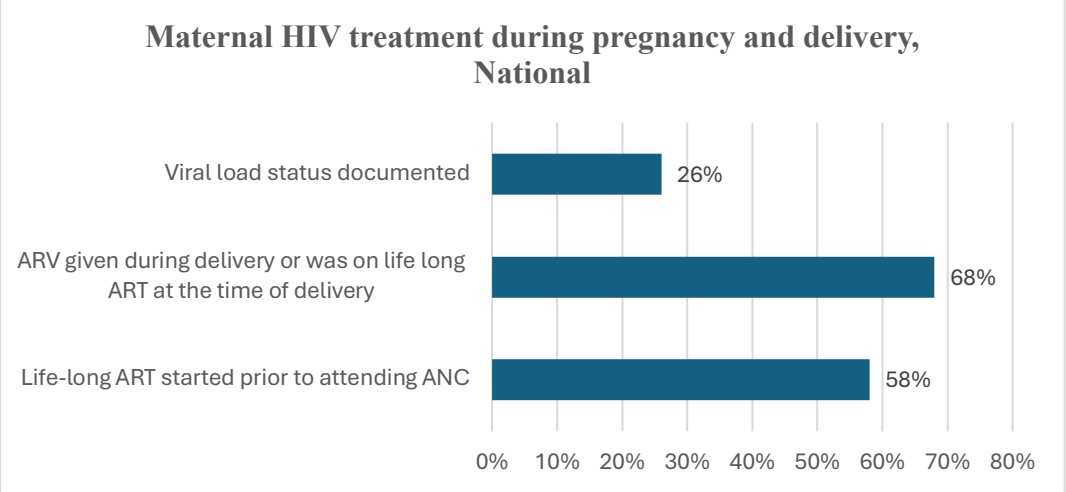

Figure 2.6: Maternal HIV Treatment during Pregnancy and Delivery, National

Exposed infant nutrition at most recent visit

Table 2.2.3.4 presents the documentation of infant feeding practices and caregiver counselling on Infant and Young Child Feeding (IYCF) among clients enrolled in PMTCT) services. The table is based on data from 1,197 facilities and assesses two key indicators: documentation of infant feeding practices at the last visit, and whether caregivers received IYCF counselling.

Across the country, IYCF practices were documented for 35% of PMTCT clients at their last visit, while 31% documented that caregivers received IYCF counselling. These figures may indicate limited integration of nutrition counselling and monitoring into PMTCT services, despite its importance for HIV-exposed infants. This may compromise infant health and increase the risk of HIV transmission through inappropriate feeding practices.

To improve the quality of PMTCT services, national programmes must act on the gaps identified in this survey through a comprehensive strategy that combines innovative capacity-building for health workers, and improved data systems for real-time tracking and evaluation of PMTCT indicators.

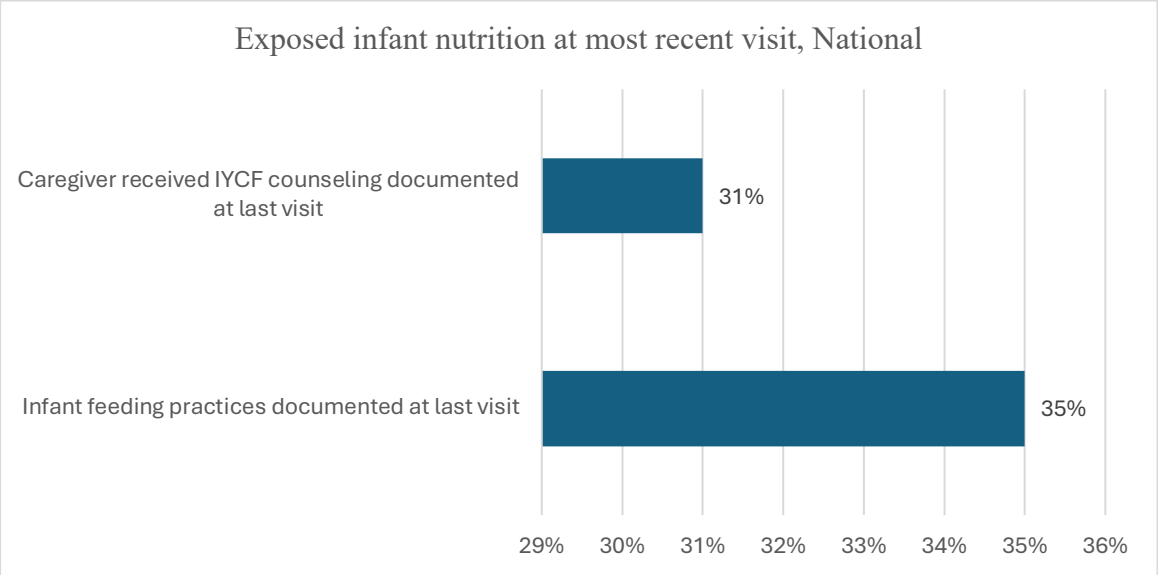

Figure 2.7: Exposed infant nutrition at most recent visit

Tuberculosis (TB)

This section presents updated findings on the quality of TB services across health facilities in Ghana, based on data collected from 1,046 facilities nationwide. Table 2.3.1.1, presents documentation of nine key service quality indicators, including correct treatment regimen, timeliness of treatment initiation, adherence to drug collection schedules, sputum monitoring at key treatment milestones, symptom tracking, HIV status documentation, and treatment outcomes.

Nationally, 98% of TB clients received the appropriate treatment regimen, 49% were initiated on treatment within seven days of diagnosis and 87% achieved successful treatment outcomes. Documentation of sputum monitoring was suboptimal from the onset of treatment and declined over the course of treatment, with 56% of clients monitored at month two, 48% at month five and 46% at month 6 (last month) of treatment. Symptom tracking at each clinical visit was recorded in 45% of cases. HIV status was documented in 89% of clients. Programme reports indicate that 93% of TB patients knew their HIV status in 2024 (National TB Programme Annual report 2024).

Across managing authorities, government and public facilities achieved 98% correct treatment regimen and 89% HIV status documentation, while NGO/private facilities recorded 100% for both treatment regimen and drug collection timeliness. Mission and faith-based facilities achieved 98% correct treatment regimen and 96% treatment success, while quasi-government and university facilities recorded 100% treatment regimen and 100% treatment success.

By facility type, regional hospitals recorded 94% for correct TB treatment regimen and 98% for HIV status documentation. District hospitals achieved 99% and 93% respectively for these same indicators. Health centres recorded 98% for treatment accuracy and 87% for HIV documentation, while clinics achieved 92% and 76%. Polyclinics recorded 98% and 97% respectively. Community-based Health Planning and Services (CHPS) facilities maintained 99% accuracy in treatment regimen but recorded lower sputum monitoring results 39% at the second month, 30% at the fifth month, and 18% at the last month of treatment.

Across locations, urban, rural, and peri-urban facilities maintained similar patterns in correct treatment regimen (96-99%) and HIV documentation (86-90%), with variation in sputum monitoring between 49 and 69%.

Among service hubs, both hub and non-hub facilities recorded 98% correct treatment regimen, with minor differences across other indicators, including sputum monitoring and treatment success.

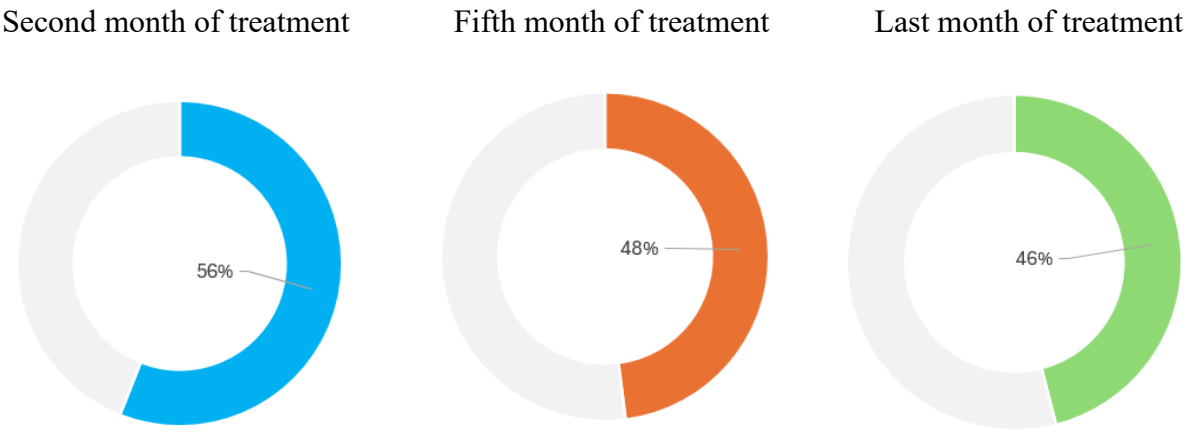

Figure 3.1: National average for TB clients with Sputum monitoring results recorded

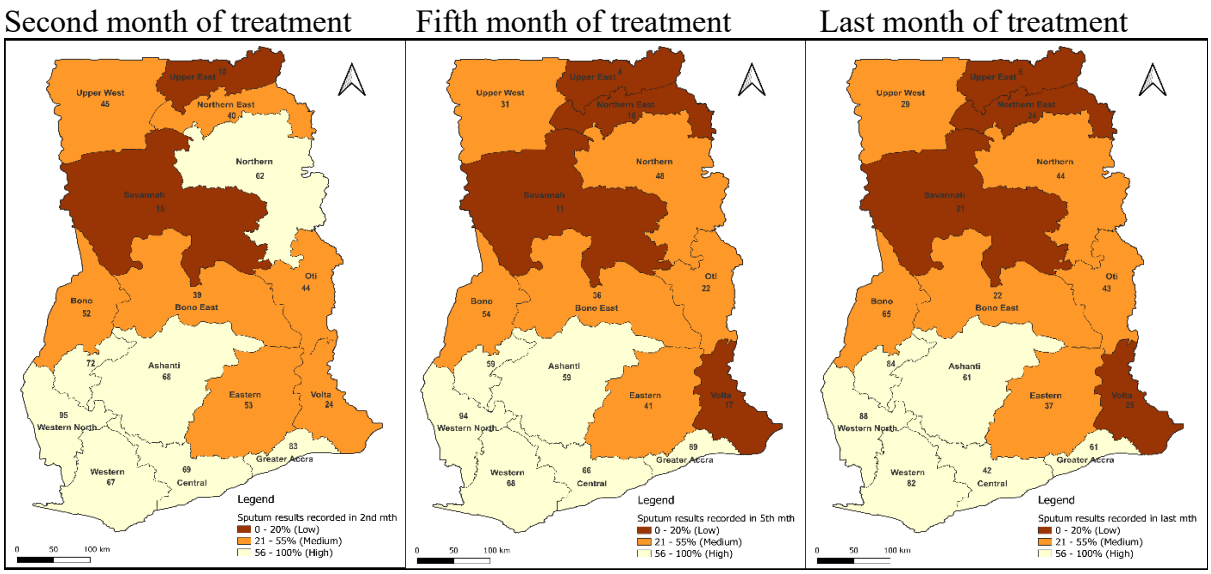

Figure 3.2: TB clients with Sputum monitoring results recorded by regions

Basis for diagnosis

Table 2.3.1.2 presents data on the basis for TB diagnosis among clients across 1,046 health facilities. Nationally, 71% of TB clients were diagnosed based on one positive sputum result using the Xpert MTB/Rif test.

At the regional level, documentation of TB clients diagnosed based on one positive sputum result varied across regions. North East and Northern regions recorded documentation levels of 100% and 96% respectively, while Bono and Western regions recorded 31% and 35% respectively.

The national policy provides for the use of the Xpert MTB/Rif test for all presumed TB patients as the primary diagnostic tool, with sputum smear microscopy used for treatment monitoring. One sputum sample is required for diagnosis, and sputum sample transport systems are in place to ensure access to Xpert MTB/Rif testing. Improved documentation of diagnostic services at the facility level is essential to accurately reflect service delivery quality and processes.

2.3.1.2. Basis for diagnosis

Percentage of TB clients with diagnosis based on:

	1 positive sputum result	n
National	71%	1,046
Region		
Ahafo	97%	22
Ashanti	77%	124
Bono	31%	55
Bono East	98%	36
Central	42%	83
Eastern	83%	182
Greater Accra	90%	66
North East	100%	27
Northern	96%	90
Oti	84%	50
Savannah	92%	26
Upper East	89%	41
Upper West	37%	86
Volta	85%	73
Western	35%	55
Western North	43%	30
Managing authority		
Government/public	73%	931
NGO/private	100%	33
Mission/faith-based	54%	75
Quasi government/university	39%	7
Facility type		
Regional Hospital	79%	16
District Hospital	70%	132
Health Centre	70%	498
Other general Hospital	53%	56
Clinic	67%	54
Polyclinic	69%	61
CHPS	82%	229
Urban/Rural | /Per-urban		
Urban	69%	302
Rural	71%	591
Per-urban	74%	153
Hubs		
Not Hubs	71%	691
Hubs	70%	355

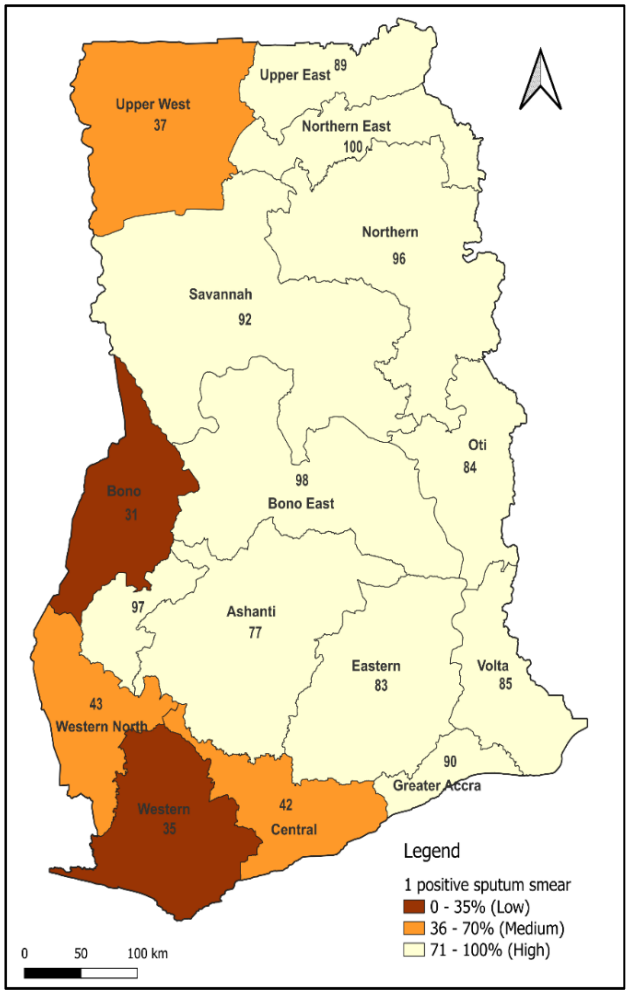

Figure 3.3: Regional Map of TB clients with one positive sputum smear

Screening of Contact Persons

Table 2.3.1.3 presents data on the documentation and screening of household contacts of TB clients across 1,046 health facilities. The analysis covers two indicators: the proportion of TB clients with a documented list of household contacts and the proportion of TB clients with all household contacts screened for TB.

Nationally, 48% of TB clients had a documented list of household contacts, and 43% had all household contacts screened for TB.

At the regional level, the proportions of TB clients with documented household contacts and those with all household contacts screened for TB varied across regions. Central Region recorded 36% and 21%, respectively, while Oti Region recorded 32% and 29%. Ahafo Region recorded 76% for both indicators, and Western North Region recorded 97% for both.

Contact tracing and screening activities are an integral part of TB control and are conducted through health facilities and district health directorates. Documentation and screening figures reflect the extent of implementation of these activities across service delivery points. Strengthening documentation systems, enhancing provider capacity for contact management, and ensuring adequate resources for household screening are essential to sustain and expand contact tracing coverage within the TB program.

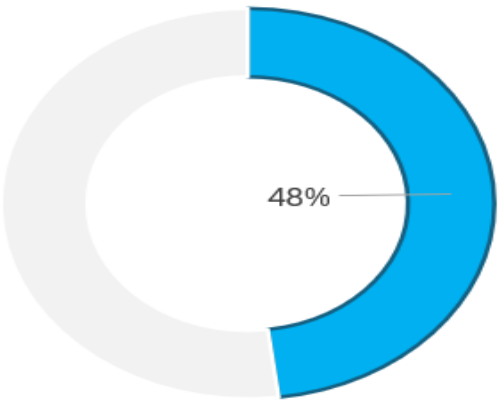

Figure 3.4: National average TB clients with a list of with All household contacts documented

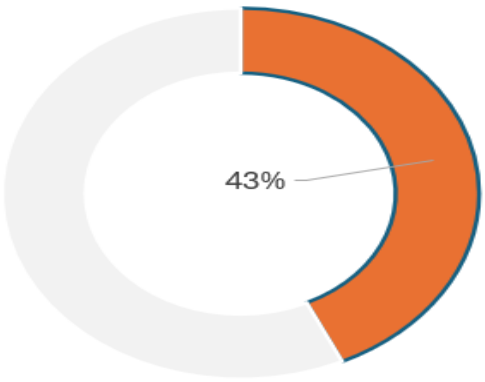

Figure 3.5 National average TB clients household contacts screened for TB

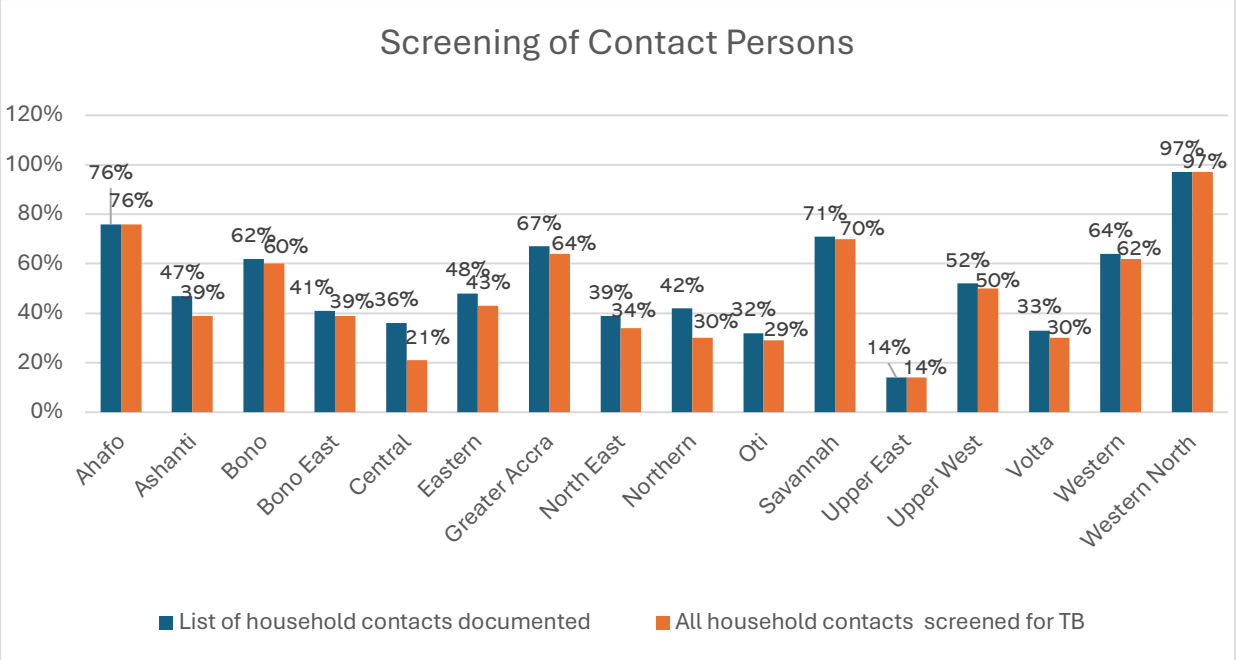

Figure 3.6: Screening of Conac Persons

Patients with HIV/TB Co-infection

Data from 1,046 health facilities show that 12% of TB clients tested positive for HIV. The Savannah Region documented a notably high co-infection rate (60%), which may reflect the limited number of reporting facilities and the concentration of TB/HIV management services in referral hospitals. The North East Region recorded 34%, Eastern 17%, and Ashanti 19%, while Bono East and Northern Regions each recorded 3%, and Upper West 1%. The national HIV testing coverage among TB clients is 93%, as reported in the 2024 TB Programme Annual Report. This pattern underscores the importance of reviewing subnational case distribution to better understand regional variations in TB/HIV co-infection.

These findings indicate the presence of HIV/TB co-infection across all levels of care and emphasise the importance of maintaining integrated TB-HIV services to support diagnosis, treatment, and follow-up for affected clients. Routine HIV testing, prompt linkage to ART, and accurate documentation remain critical for improving outcomes and ensuring comprehensive case management.

2.3.1.4. Patients with HIV/TB co-infection

Percentage of TB clients tested for HIV and:

	With a positive HIV test result	N
National	12%	1,046
Region		
Ahafo	6%	22
Ashanti	19%	124
Bono	13%	55
Bono East	3%	36
Central	7%	83
Eastern	17%	182
Greater Accra	10%	66
North East	34%	27
Northern	3%	90
Oti	6%	50
Savannah	60%	26
Upper East	4%	41
Upper West	1%	86
Volta	8%	73
Western	10%	55
Western North	14%	30
Managing authority		
Government/public	13%	931
NGO/private	0%	33
Mission/faith-based	11%	75
Quasi government/university	22%	7
Facility type		
Regional Hospital	12%	16
District Hospital	11%	132
Health Centre	9%	498
Other general Hospital	10%	56
Clinic	10%	54
Polyclinic	13%	61
CHPS	20%	229

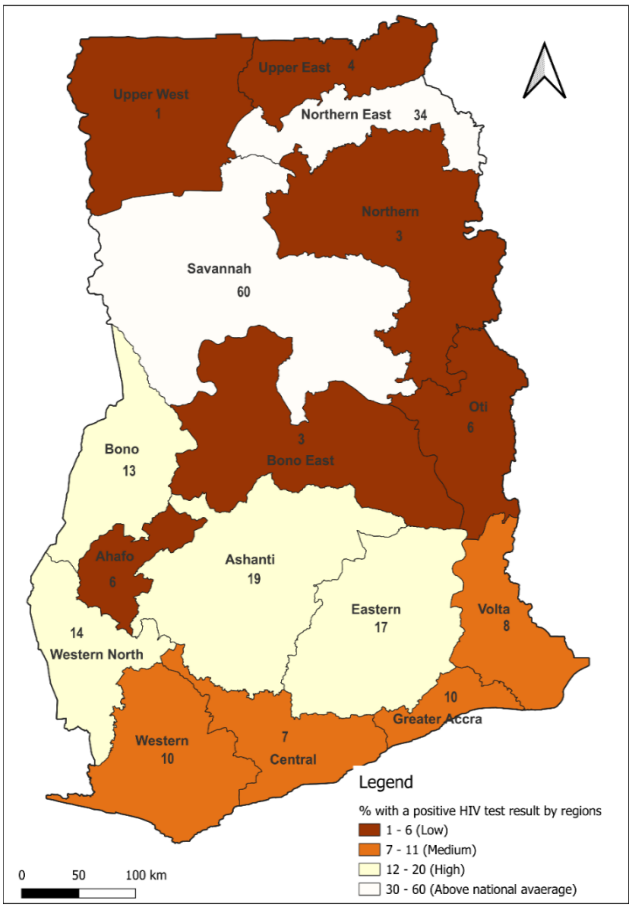

Figure 3.7: Regional Distribution of Patients with HIV/TB Co-infection

Malaria

Quality of Uncomplicated Malaria Services for children under 5

This section presents analyses of the quality of care for uncomplicated malaria in children under five, drawing from a review of 1,562 health facilities (Table 2.4.1.1). The assessment evaluates the documentation of four essential clinical actions for suspected malaria cases in children under five: documentation of client-reported symptoms, a physical examination, temperature measurement, and an assessment for anaemia.

Nationally, health facilities in Ghana exhibited strong documentation of foundational clinical assessment practices for children presenting with symptoms of malaria. A high percentage of clients records documented client-reported symptoms (98%), physical examinations (94%), and temperature measurements (91%). These findings indicate broad adherence to standard clinical protocols at the initial assessment stage; however, a shortfall was noted in the documentation of anaemia assessment, an important clinical measure in malaria severity evaluation. Anaemia assessments were recorded in 46% of clients, exposing a crucial gap in the quality of malaria care.

Anaemia is not only a common comorbidity with malaria but also a leading contributor to child morbidity and mortality in Ghana. According to the 2019 Ghana Malaria Indicator Survey, 66% of children under five who tested positive for malaria were also anaemic (GSS, 2020). Recent analyses show that despite some progress, anaemia prevalence remains high, with 48.9% of children under five affected in 2022 (Osborne et al., 2024). Strong associations between anaemia and malaria have been documented, especially among children aged 6 - 23 months, those in rural areas, and children from poorer households (Aheto et al., 2023; Peprah et al., 2024). Hence, failing to assess and document anaemia in malaria cases undermines clinical care quality and delays timely interventions.

Documentation performance for anaemia assessment varied considerably across regions. ranging from 83% in Oti to just 36% - 40% in other regions.

By managing authority, public/government facilities demonstrated high documentation for symptoms, physical exams, and temperature (each above 90%) but lagged in anaemia assessment (44%). Private/NGO and mission/faith-based facilities had higher anaemia documentation percentages (60% and 64%, respectively).

This disparity likely stems from the facility composition within each ownership category. Public facilities include a large number of CHPS compounds, which are community-based, lower-tier facilities with limited diagnostic capacity. Meanwhile, private and mission facilities tend to be hospitals or clinics.

Facility-level differences were also observed. CHPS compounds, although matching higher-level facilities in documenting symptoms, physical examinations, and temperature (≥90%), had much lower percentages of clients with anaemia assessment (41%). In comparison, district hospitals, polyclinics, and health centres documented anaemia more frequently (54%–64% of clients).

Documentation of Client-Reported Symptoms

Table 2.4.1.2 presents documentation of client-reported symptoms for suspected malaria cases for children under five, focusing on symptoms of fever, anaemia (e.g., fatigue), and convulsions or loss of consciousness.

Nationally, symptoms of fever were documented in 93% of children under five with suspected malaria. This is in line with national protocols and reflects adequate initial clinical screening for malaria cases (Yahaya et al., 2024; NMEP 2024). However, this sharply contrasts with the documentation of danger signs, including symptoms of anaemia (29%) and asking the caregiver about convulsions or loss of consciousness (20%).

These findings highlight a critical quality-of-care gap. While fever documentation is almost universal, the failure to consistently ask about and document symptoms of fever, anaemia, and convulsions or loss of consciousness undermines the ability of health workers to recognize and manage uncomplicated malaria cases for children under five. As emphasized by the Integrated Management of Newborn and Childhood Illnesses (IMNCI) guidelines, documenting danger signs is essential to ensure timely referral and reduce mortality risks (WHO, 2021).

Western North recorded 98% of clients with documentation of fever symptoms, 80% for anaemia and 52% for convulsions or loss of consciousness, being the region with the highest proportions across all three items. Upper East and Oti documented symptoms of anaemia in only 2% and 5% of clients respectively and convulsions or loss of consciousness in 0% and 1% respectively.

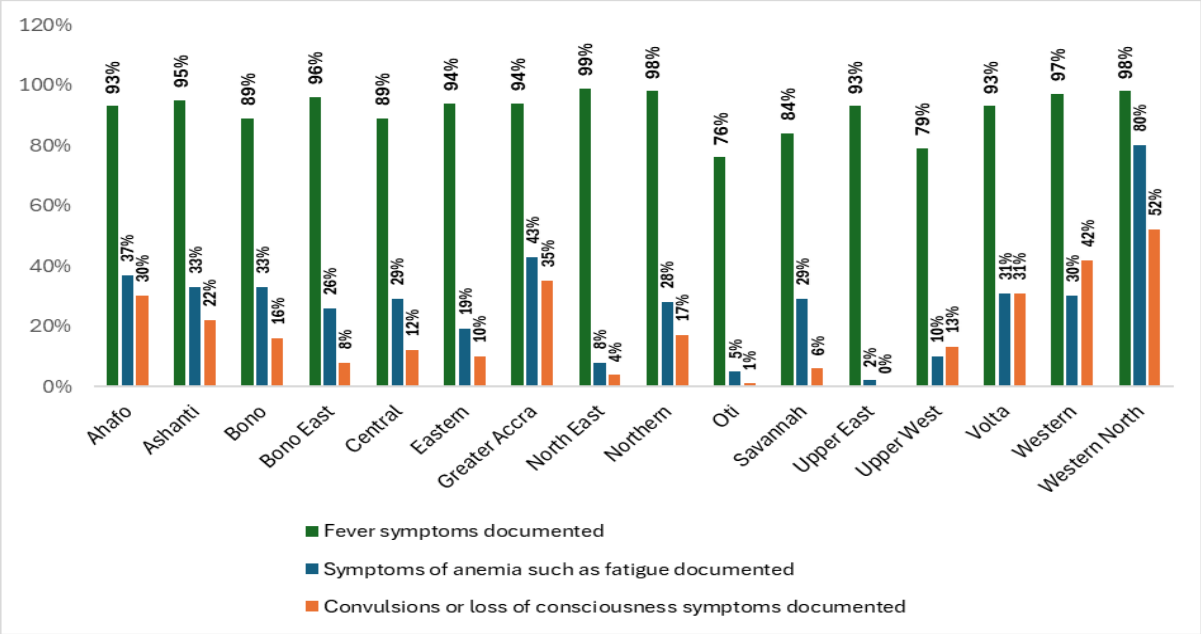

Figure 4.1: Documentation of client-reported symptoms among suspected under-five malaria cases

Diagnostic Testing Services

Table 2.4.1.3 presents the diagnostic methods used for suspected malaria cases in children under five, including diagnosis via Rapid Diagnostic Test (RDT), blood smear microscopy, an unspecified blood test, or diagnosis without documentation of a positive test.

According to national guidelines, every suspected malaria case is expected to be confirmed through laboratory testing before treatment with appropriate antimalarial medication is initiated, if the test result is positive. This test-before-treat policy aims to ensure accurate diagnosis and effective treatment. In Ghana, malaria diagnosis typically relies on two primary methods: Rapid Diagnostic Tests (RDTs) and microscopy. Microscopy is considered the gold standard for malaria diagnosis due to its high accuracy in detecting malaria parasites.

About 85% of suspected malaria cases are confirmed with a parasitological test: 73% via rapid diagnostic tests (RDTs) and 12% via microscopy. However, approximately 14% of diagnoses were made without a documented positive blood test, indicating either presumptive treatment or failures in record-keeping. The 14% of unconfirmed diagnoses is a concern, because treating without laboratory confirmation can lead to unnecessary side effects, and mismanagement of non-malaria febrile illness.

Sub-national analysis show variation in diagnostic approaches depending on facility ownership, type, locality, and region. Government and public facilities rely heavily on RDTs, with 79% of cases tested via RDT and only 7% through microscopy (NMEP, 2024). Conversely, NGO and private facilities show an inverse trend, with 49% of diagnoses confirmed through microscopy and 28% via RDTs. This is likely due to better lab infrastructure in the private sector whiles government facilities may have easy access to RDT.

Facility type also plays a central role. At the community level, CHPS compounds predominantly use RDTs, with 85% of diagnoses confirmed through this method and 3% through microscopy. This is consistent with the NMEP policy, which emphasizes RDT use at lower-level facilities and gradually expands microscopy to all levels (NMEP, 2024). Higher-level facilities such as hospitals and polyclinics report microscopy in between 49% and 57% of clients, reflecting their improved lab capacity. However, regional hospitals had the highest proportion (31%) of clients with unconfirmed diagnoses, suggesting possible lapses in record-keeping in these high-volume environments (Dinko et al., 2016).

Also, rural facilities rely primarily on RDTs, with 83% of diagnoses made using RDTs and only 5% via microscopy. In urban settings, 43% clients were diagnosed using RDTs and 35% using microscopy.

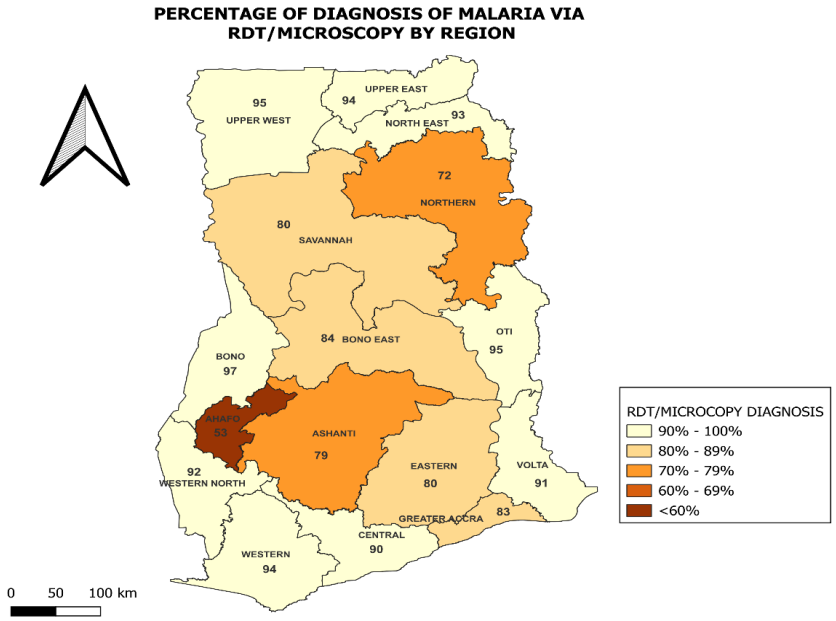

Figure 4.2: Percentage of suspected malaria cases diagnosed via RDT and Microscopy by Region,

Malaria Treatment

Table 2.4.1.4 shows the quality of malaria treatment services for suspected cases in children under five across 1,562 facilities. It assesses three key indicators: the percentage of children prescribed any anti-malarial medicine, the percentage provided with ACT, and the percentage who received ACT at the correct dosage according to national treatment guidelines.

According to national policy, antimalarial treatment is only provided to confirmed malaria cases, at the appropriate dose. ACTs are designated as the first-line treatment for uncomplicated malaria.

Ghana's national performance in malaria treatment for children under five is commendably high. Among malaria clients under five years of age, 97% had an antimalarial prescribed, , 96% received ACT, and in 92% ACT was prescribed at the correct dosage. This reflects strong adherence to Ghana's national malaria treatment protocols and aligned with WHO standards.

Despite the national performance, there are some subnational disparities in treatment quality in relation to correct dosing. While ACT prescriptions remain uniformly high across Ghana's regions, typically ranging between 90% and 100%, the accuracy of dosage was low in two regions: Upper West R recorded the lowest correct dosage rate at 68% and Savannah at 79%. In contrast, most other regions achieved dosage adherence rates above 90%.

Facility type also plays a role in treatment quality. Polyclinics demonstrated the highest percentage of clients with correct dosage (97%), followed by CHPS compounds and health centres, which performed well in ACT prescription but showed moderate gaps in dosage correctness (Aryeetey et al., 2023). Interestingly, regional hospitals, despite being better-resourced, recorded the lowest correct dosage at 91%. Reasons for these findings should be explored.

Geographic locality, however, does not appear to significantly affect treatment quality once care is accessed. Across urban, peri-urban, and rural settings, dosage adherence remained consistently high, ranging from 92% to 94%. The relatively uniform performance across localities suggests that once children reach a health facility, they are likely to receive comparable care, regardless of urban or rural location.

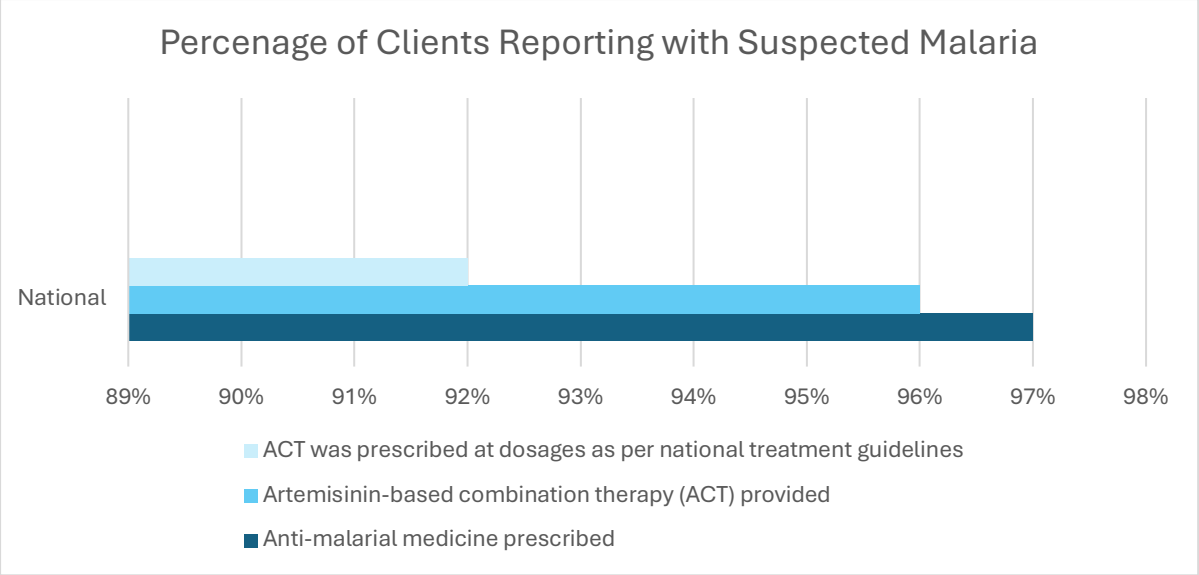

Figure 4.3: Client Reporting with Suspected Malaria

Key Recommendations

Antenatal Care

- Late booking reduces opportunities for screening, prevention, and timely care. Cultural beliefs, lack of awareness, financial and distance barriers, and limited provider emphasis on early booking are contributing factors.
- To improve ANC quality and outcomes, Ghana should prioritize community education and engagement to promote early initiation, particularly in low-performing regions. Culturally sensitive approaches, including adolescent-friendly interventions and collaboration with community leaders, can address secrecy and stigma. Male involvement campaigns and incentive packages for early booking could be considered. Indirect costs can be mitigated through outreach services and transport support in rural areas.
- The gap in completing recommended ANC contacts (4^{th} and 8^{th} visits) is linked to factors such as transport costs, long waiting times, client loss to follow-up, inflexible clinic schedules, and competing priorities. These challenges can be addressed through strengthening interventions that reduce travel and opportunity costs (e.g., outreach and home visits), extending clinic hours to accommodate working women, and ensuring regular follow-up to support continuity of care.
- Strengthening service delivery at the primary level is crucial; this includes posting more midwives to CHPS compounds and health centers, ensuring reliable commodity supply, expanding diagnostic capacity, and strengthening supervision and data quality assurance. Finally, moving beyond contact coverage to ensuring comprehensive ANC service delivery will be essential for improving maternal and newborn health outcomes nationwide.

Malaria

- Reinforce IMCI Protocols: Provide regular training and mentorship focused on probing for and documenting danger signs, including anaemia symptoms and convulsions.
- Leverage NoP Hubs: Use higher-performing facilities to mentor surrounding CHPS compounds and clinics, promoting standardized symptom assessment protocols.
- Strengthen routine Audits: Conduct monthly audits to ensure that all fever cases are screened for danger signs, with immediate action taken when such signs are present.

- Invest in Low-Performing Areas: Allocate resources and supervisory support to the lowest-performing regions and rural facilities, helping to close the equity gap and improve survival outcomes.
- Target facilities with high rates of undocumented diagnoses; particularly in the Ahafo region, regional hospitals, and urban centers for in-depth investigation. This should focus on identifying whether gaps are due to presumptive treatment, workflow challenges, or documentation failures.
- Leverage the NoP model to organize quarterly quality improvement circles centered on diagnostic accuracy. These sessions should include refresher training on both RDT and microscopy use, regular proficiency assessments, and enhanced feedback mechanisms between laboratories and clinical teams to ensure test results are accurately recorded
- Emphasize proper documentation practices during all supervision and training visits. Simplify data entry workflows and consider introducing digital tools or visual checklists to reduce undocumented test results at all levels. Support facilities in streamlining processes to minimize the burden of documentation, especially in high-volume settings.
- Maintain a differentiated diagnostic strategy by facility level: continue using RDTs as the primary diagnostic tool in lower-level facilities, while prioritizing and strengthening microscopy capacity in referral hospitals and Hub sites. Consider expanding microscopy services to mid-level facilities gradually, consistent with NMEP policy, to enhance diagnostic accuracy and reduce regional disparities.
- Strengthen Provider Capacity: Prioritize refresher training, on-the-job coaching, and the distribution of job aids focused specifically on the importance and methods of anaemia assessment (e.g., checking for palmar pallor) for all frontline providers.
- Target Underperforming Areas: Focus supportive supervision and resources on regions with the lowest completion rates for the assessment bundle, specifically the North East, Central, and Savannah regions.
- Improve Primary-Level Care: Targeted support is essential for CHPS compounds and rural facilities to ensure that anaemia screening is systematically integrated into routine malaria case management at the first point of care for most children.
- Enhance Documentation Systems: Integrate simple checklists or prompts for all four assessment components into client folders and electronic health registers or e-tracker to make comprehensive documentation easier and more consistent for healthcare workers.

HIV HTS, ART and PMTCT

1. **Strengthen Post-Test Prevention Services**

- Scale up post-test counselling and condom distribution, especially in CHPS compounds and health centres.
- Ensure full implementation of revised HIV testing registers and train healthcare workers on documentation and prevention service delivery.

2. **Improve Linkage to HIV Care**

- Establish robust referral and tracking systems to ensure all HIV-positive clients are linked to ART services.
- Support district health directorates to coordinate with ART centers and community-based testing sites for seamless transitions.

3. **Enhance ART Service Quality**

- Improve documentation of confirmatory HIV testing and adherence to national ART guidelines.
- Address gaps in viral load monitoring by strengthening sample referral systems, reagent supply, and provider capacity.
- Promote differentiated service delivery models and psychosocial support to improve ART adherence.

4. **Integrate TB Screening and Preventive Therapy**

- Ensure routine TB symptom screening and documentation during ART visits.
- Expand access to isoniazid preventive therapy (IPT) and train providers on TB-HIV integration protocols.
- Target support to underperforming regions and facility types.

5. **Strengthen PMTCT Services**

- Improve documentation and delivery of partner testing, newborn ARV prophylaxis, early infant diagnosis, and cotrimoxazole preventive therapy.
- Enhance viral load monitoring for pregnant women and integrate HIV services into antenatal care platforms.
- Address disparities in service quality across facility types to ensure equitable access.

6. **Integrate Nutrition Counselling into PMTCT**

- Train providers on infant and young child feeding (IYCF) protocols.
- Improve documentation and delivery of nutrition counselling during routine PMTCT visits.

7. **Invest in Data Systems and Health Worker Capacity**

- Expand use of electronic data systems (e.g., HIV e-tracker) for viral load and service monitoring.
- Provide ongoing training, supervision, and mentorship to improve documentation and service quality.

8. **Ensure Supply Chain Efficiency**

- Strengthen procurement and distribution systems for condoms, PrEP, TB preventive therapy, and viral load reagents.

Tuberculosis

To address the identified gaps and strengthen TB service quality in Ghana, the following actions are recommended:

- Improve monitoring protocols for sputum and symptom tracking through training and data system investments.
- Ensure consistent use of rapid diagnostic tools like GeneXpert.
- Incorporate contact tracing into routine TB care, focusing on training providers and improving documentation systems.
- Provide targeted interventions in underperforming regions such as Upper West, Savannah, Bono East, North East, and Oti, and in lower-level facilities, particularly CHPS compounds and rural health centres.
- Ensure routine HIV testing for all TB patients and strengthen referral systems for ART initiation.

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ANNEX

1. General service availability among facilities surveyed

1.1.1.1. Availability of outpatient and inpatient services

Percentage of facilities offering:

	Any outpatient services	Any inpatient services	N
National	99%	14%	1,641
Region			
Ahafo	100%	16%	33
Ashanti	99%	21%	215
Bono	99%	4%	81
Bono East	99%	17%	70
Central	98%	18%	146
Eastern	98%	6%	221
Greater Accra	99%	23%	168
North East	100%	10%	34
Northern	100%	11%	110
Oti	100%	7%	52
Savannah	100%	5%	45
Upper East	100%	4%	83
Upper West	100%	4%	90
Volta	100%	12%	115

Western	100%	15%	112
Western North	100%	10%	66
Managing authority			
Government/public	99%	5%	1,312
NGO/private	100%	55%	214
Mission/faith-based	99%	61%	105
Quasi government/university	100%	49%	10
Facility type			
Regional Hospital	100%	100%	16
District Hospital	100%	98%	134
Health Centre	99%	13%	594
Other general Hospital	100%	85%	145
Clinic	98%	36%	199
Polyclinic	98%	94%	63
CHPS	100%	1%	490
Urban/Rural /Per-urban			
Urban	98%	39%	481
Rural	100%	5%	926
Per-urban	100%	21%	234
Hubs			
Not Hubs	99%	14%	1,228
Hubs	98%	11%	413

2. Clinical quality of care

2.1. Antenatal care

2.1.1. Antenatal care

2.1.1.1. Quality of ANC services

Percentage of ANC clients with:

	First ANC contact in the first trimester (before 12 weeks of gestation)	At least four ANC contacts during the pregnancy	At least eight ANC contacts during the pregnancy	Blood pressure measured at most recent ANC contact	Anaemia screening at most recent ANC contact	Screening for syphilis received during ANC	Counselling and testing for HIV received during ANC	Iron and folic acid tablets received at most recent ANC contact	Any medicine for intestinal worms received during ANC	n
National	47%	99%	29%	98%	72%	92%	91%	98%	74%	1,427
Region										
Ahafo	44%	100%	28%	100%	67%	91%	99%	100%	89%	30
Ashanti	48%	100%	27%	99%	79%	97%	95%	100%	86%	195
Bono	24%	99%	21%	95%	21%	91%	88%	98%	5%	67
Bono East	51%	100%	54%	98%	77%	99%	99%	97%	79%	62
Central	43%	100%	30%	95%	85%	92%	87%	97%	84%	123
Eastern	56%	100%	38%	97%	62%	96%	95%	96%	87%	189
Greater Accra	43%	100%	30%	100%	100%	96%	86%	100%	97%	132
North East	23%	100%	6%	100%	91%	77%	88%	96%	66%	33

Northern	27%	100%	18%	99%	73%	89%	82%	98%	40%	103
Oti	71%	100%	28%	99%	31%	90%	97%	94%	48%	48
Savannah	37%	100%	13%	100%	26%	66%	80%	99%	9%	43
Upper East	44%	100%	39%	97%	95%	79%	87%	100%	83%	73
Upper West	69%	100%	31%	98%	18%	84%	89%	95%	9%	82
Volta	50%	99%	35%	100%	98%	93%	96%	100%	96%	99
Western	55%	98%	33%	99%	63%	96%	97%	99%	91%	87
Western North	42%	88%	13%	99%	88%	100%	92%	100%	96%	61
Managing authority										
Government/public	46%	99%	27%	98%	71%	91%	91%	98%	73%	1,168
NGO/private	52%	100%	41%	100%	91%	95%	85%	99%	85%	152
Mission/faith-based	48%	99%	38%	98%	66%	93%	93%	98%	70%	100
Quasi government/university	52%	85%	32%	94%	54%	100%	95%	100%	47%	7
Facility type										
Regional Hospital	71%	99%	56%	99%	86%	95%	93%	100%	80%	16
District Hospital	52%	100%	47%	99%	75%	98%	95%	99%	81%	132
Health Centre	51%	99%	34%	99%	70%	95%	93%	98%	72%	580
Other general Hospital	55%	100%	41%	98%	81%	94%	90%	99%	78%	122

Clinic	50%	99%	37%	99%	81%	96%	89%	99%	80%	129
Polyclinic	51%	100%	41%	100%	79%	95%	92%	98%	74%	60
CHPS	45%	99%	25%	98%	71%	90%	90%	98%	73%	388
Urban/Rural / Per-urban										
Urban	50%	100%	38%	98%	77%	96%	90%	98%	72%	401
Rural	47%	99%	26%	98%	69%	91%	91%	98%	71%	817
Per-urban	46%	100%	34%	99%	81%	93%	93%	99%	87%	209
Hubs										
Not Hubs	47%	99%	29%	99%	73%	91%	90%	99%	73%	1,025
Hubs	49%	99%	33%	97%	70%	96%	95%	98%	78%	402

2.1.1.2. Quality of ANC services (Ghana Specific indicators)

Percentage of ANC clients with:

	Counselling on Diet and Nutrition\Anaemia\IFA Sup	Counselling on: Danger Signs in Pregnancy	Counselling on: Pregnancy Induced Hypertension	Counselling on: Signs for labour and Progress of Delivery	Counselling on: Family Planning	Counselling in: Mother to Child Transmission of HIV	Documentation that the foetal heartbeat was listened to at each ANC visit after 28weeks	n
National	78%	68%	57%	65%	54%	73%	96%	1,427
Region								
Ahafo	93%	94%	93%	93%	89%	94%	90%	30
Ashanti	87%	82%	57%	75%	52%	82%	99%	195
Bono	9%	5%	5%	5%	4%	6%	97%	67
Bono East	76%	56%	37%	40%	14%	60%	99%	62
Central	63%	59%	47%	58%	55%	53%	95%	123
Eastern	82%	70%	57%	64%	42%	75%	94%	189
Greater Accra	97%	70%	69%	75%	87%	98%	100%	132
North East	91%	86%	78%	77%	85%	79%	91%	33
Northern	85%	80%	60%	72%	54%	68%	99%	103
Oti	22%	15%	14%	12%	8%	8%	94%	48
Savannah	9%	8%	8%	8%	6%	77%	94%	43
Upper East	100%	100%	100%	100%	100%	99%	100%	73
Upper West	25%	12%	7%	7%	0%	8%	90%	82
Volta	98%	75%	54%	73%	32%	83%	99%	99
Western	96%	90%	90%	91%	78%	93%	91%	87
Western North	100%	100%	100%	100%	99%	100%	88%	61

Managing authority								
Government/public	77%	68%	57%	65%	55%	72%	96%	1,168
NGO/private	87%	72%	62%	71%	59%	86%	95%	152
Mission/faith-based	69%	60%	48%	56%	37%	67%	98%	100
Quasi government/university	54%	50%	34%	52%	45%	50%	100%	7
Facility type								
Regional Hospital	86%	79%	74%	75%	65%	85%	96%	16
District Hospital	82%	74%	61%	64%	48%	77%	99%	132
Health Centre	73%	64%	52%	58%	45%	68%	96%	580
Other general Hospital	79%	67%	56%	63%	46%	76%	98%	122
Clinic	84%	70%	59%	68%	56%	82%	95%	129
Polyclinic	72%	57%	51%	51%	51%	76%	98%	60
CHPS	77%	68%	58%	66%	57%	72%	96%	388
Urban/Rural /Per-urban								
Urban	79%	71%	59%	65%	49%	75%	97%	401
Rural	75%	66%	58%	65%	55%	70%	96%	817
Per-urban	90%	72%	52%	66%	56%	87%	97%	209
Hubs								
Not Hubs	78%	69%	58%	66%	55%	73%	96%	1,025
Hubs	77%	62%	51%	60%	48%	71%	97%	402

2.1.1.3. Client care process for IPTp

Percentage of ANC clients with:

	IPT x 3 doses	First dose IPT after 16 weeks' gestation	ITN or voucher received during ANC	n
National	78%	88%	85%	1,427
Region				
Ahafo	64%	69%	69%	30
Ashanti	68%	82%	82%	195
Bono	65%	78%	7%	67
Bono East	86%	91%	77%	62
Central	69%	88%	91%	123
Eastern	84%	90%	93%	189
Greater Accra	86%	86%	80%	132
North East	68%	90%	93%	33
Northern	84%	89%	87%	103
Oti	78%	99%	97%	48
Savannah	55%	81%	83%	43
Upper East	87%	87%	89%	73
Upper West	77%	88%	93%	82
Volta	97%	97%	94%	99
Western	86%	95%	93%	87
Western North	72%	93%	90%	61

Managing authority				
Government/public	79%	88%	86%	1,168
NGO/private	77%	83%	77%	152
Mission/faith-based	70%	84%	74%	100
Quasi government/university	48%	61%	63%	7
Facility type				
Regional Hospital	76%	84%	78%	16
District Hospital	78%	87%	77%	132
Health Centre	82%	91%	84%	580
Other general Hospital	72%	78%	73%	122
Clinic	78%	88%	79%	129
Polyclinic	82%	90%	91%	60
CHPS	78%	88%	87%	388
Urban/Rural / Per-urban				
Urban	80%	86%	78%	401
Rural	78%	88%	87%	817
Per-urban	76%	85%	81%	209
Hubs				
Not Hubs	78%	87%	85%	1,025
Hubs	82%	91%	81%	402

2.2. HIV

2.2.1. HIV testing and counselling

2.2.1.1. Quality of HIV testing services

Percentage of HTS clients with:

	HIV test results recorded	HIV test results received	Post-test counselling received	Condoms received	n
National	99%	95%	71%	4%	997
Region					
Ahafo	100%	99%	49%	0%	27
Ashanti	100%	99%	71%	1%	107
Bono	100%	99%	69%	2%	39
Bono East	100%	100%	70%	1%	49
Central	99%	86%	63%	1%	108
Eastern	100%	95%	60%	3%	155
Greater Accra	99%	100%	92%	4%	123
North East	100%	100%	22%	0%	19
Northern	100%	98%	57%	0%	14
Oti	100%	64%	25%	0%	48
Savannah	100%	100%	81%	10%	17

Upper East	96%	96%	63%	7%	61
Upper West	100%	100%	39%	0%	36
Volta	100%	99%	92%	18%	75
Western	100%	86%	83%	3%	70
Western North	99%	100%	90%	8%	49
Managing authority					
Government/public	100%	95%	71%	4%	839
NGO/private	100%	94%	73%	3%	84
Mission/faith-based	96%	92%	75%	4%	69
Quasi government/university	100%	100%	100%	6%	5
Facility type					
Regional Hospital	99%	100%	99%	20%	16
District Hospital	100%	99%	88%	11%	128
Health Centre	99%	91%	67%	5%	424
Other general Hospital	100%	99%	77%	5%	74
Clinic	98%	90%	76%	4%	86
Polyclinic	100%	97%	83%	14%	58
CHPS	100%	96%	70%	2%	211

Urban/Rural / Per-urban					
Urban	100%	95%	74%	7%	293
Rural	99%	95%	70%	3%	553
Per-urban	99%	96%	75%	4%	151
Hubs					
Not Hubs	99%	95%	73%	4%	693
Hubs	99%	94%	63%	2%	304

2.2.1.2. Additional care process for HIV positive clients

Percentage of HIV positive clients with:

	Referral to HIV care and enrolment	n
National	12%	997
Region		
Ahafo	7%	27
Ashanti	13%	107
Bono	2%	39
Bono East	3%	49
Central	4%	108
Eastern	3%	155
Greater Accra	30%	123
North East	12%	19
Northern	13%	14
Oti	2%	48
Savannah	5%	17
Upper East	0%	61
Upper West	5%	36
Volta	3%	75
Western	17%	70
Western North	19%	49
Managing authority		

Government/public	10%	839
NGO/private	20%	84
Mission/faith-based	20%	69
Quasi government/university	36%	5
Facility type		
Regional Hospital	34%	16
District Hospital	30%	128
Health Centre	11%	424
Other general Hospital	20%	74
Clinic	21%	86
Polyclinic	35%	58
CHPS	8%	211
Urban/Rural / Per-urban		
Urban	22%	293
Rural	9%	553
Per-urban	14%	151
Hubs		
Not Hubs	12%	693
Hubs	11%	304

2.2.1.3. Additional care process for HIV positive clients _ Table

Percentage of HIV positive clients with:

	Documented referral to HIV care and enrolment	Documented Positive HIV Client referred /Admitted to ART or Care	Documented Positive HIV Client enrolled to ART or Care and Support	n
National	70%	82%	70%	427
Region				
Ahafo	94%	96%	94%	14
Ashanti	62%	72%	62%	65
Bono	15%	25%	15%	18
Bono East	51%	80%	51%	17
Central	61%	79%	61%	35
Eastern	57%	69%	57%	39
Greater Accra	77%	88%	77%	86
North East	82%	83%	82%	11
Northern	83%	83%	83%	10
Oti	43%	54%	43%	16
Savannah	76%	94%	76%	7
Upper East	47%	47%	47%	3
Upper West	68%	88%	68%	14
Volta	77%	77%	77%	23
Western	72%	89%	72%	46
Western North	92%	92%	92%	23

Managing authority				
Government/public	71%	83%	71%	336
NGO/private	67%	80%	67%	45
Mission/faith-based	65%	72%	65%	43
Quasi government/university	100%	100%	100%	3
Facility type				
Regional Hospital	93%	100%	93%	14
District Hospital	87%	88%	87%	91
Health Centre	67%	75%	67%	170
Other general Hospital	60%	74%	60%	40
Clinic	73%	85%	73%	42
Polyclinic	90%	94%	90%	42
CHPS	70%	84%	70%	28
Urban/Rural / Per-urban				
Urban	69%	82%	69%	179
Rural	67%	81%	67%	175
Per-urban	81%	83%	81%	73
Hubs				
Not Hubs	73%	87%	73%	300
Hubs	60%	64%	60%	127

2.2.2. Antiretroviral therapy

2.2.2.1. Quality of ART services

Percentage of ART clients with:

	Confirmatory HIV test before initiating ART	CD4 level measured before initiating ART	ART regimen according to national guidelines	Cotrimoxazole (CTX) prophylaxis according to national guidelines or client not eligible	Viral load measured at 6 months on ART	Adherence status recorded at most recent clinical visit	Testing for ARV drug resistance	Standard screening for TB recorded at most recent clinical visit	TB status recorded at most recent clinical visit	n
National	90%	6%	97%	56%	35%	66%	14%	18%	87%	540
Region										
Ahafo	98%	0%	98%	64%	76%	90%	0%	28%	100%	15
Ashanti	100%	2%	97%	65%	16%	81%	5%	22%	96%	61
Bono	65%	4%	93%	45%	51%	45%	10%	29%	79%	27
Bono East	88%	3%	100%	64%	48%	65%	2%	0%	91%	15
Central	90%	8%	95%	52%	6%	73%	1%	11%	81%	62
Eastern	79%	0%	84%	43%	19%	59%	1%	9%	53%	63
Greater Accra	100%	8%	100%	51%	41%	57%	22%	6%	100%	70
North East	100%	5%	93%	24%	28%	71%	0%	0%	88%	18
Northern	95%	1%	99%	76%	17%	72%	0%	11%	81%	22
Oti	100%	1%	98%	42%	15%	93%	0%	20%	97%	27

Savannah	98%	0%	100%	33%	24%	47%	2%	5%	100%	13
Upper East	25%	0%	100%	26%	0%	10%	0%	1%	57%	24
Upper West	87%	0%	99%	47%	10%	80%	86%	7%	97%	14
Volta	98%	0%	99%	52%	21%	84%	1%	12%	84%	41
Western	98%	3%	98%	82%	86%	69%	27%	28%	98%	40
Western North	99%	50%	100%	98%	95%	97%	73%	99%	98%	28
Managing authority										
Government/public	88%	6%	96%	54%	33%	64%	14%	17%	86%	467
NGO/private	100%	30%	100%	77%	77%	83%	47%	24%	100%	10
Mission/faith-based	96%	2%	98%	61%	32%	73%	6%	16%	90%	58
Quasi government/university	100%	8%	100%	73%	64%	69%	21%	48%	100%	5
Facility type										
Regional Hospital	99%	1%	98%	45%	34%	69%	8%	20%	86%	16
District Hospital	94%	6%	98%	65%	39%	73%	9%	24%	95%	132
Health Centre	91%	4%	96%	57%	33%	68%	11%	19%	83%	248
Other general Hospital	96%	11%	99%	60%	54%	79%	25%	25%	96%	40
Clinic	93%	0%	99%	73%	43%	61%	6%	8%	92%	21
Polyclinic	98%	6%	100%	54%	36%	66%	14%	12%	92%	55

CHPS	75%	10%	94%	37%	21%	48%	21%	10%	78%	28
Urban/Rural / Per-urban										
Urban	93%	3%	97%	61%	39%	73%	8%	20%	91%	202
Rural	85%	7%	96%	51%	31%	62%	16%	19%	83%	255
Per-urban	97%	9%	97%	59%	40%	62%	22%	10%	92%	83
Hubs										
Not Hubs	92%	8%	96%	57%	37%	68%	14%	19%	88%	348
Hubs	86%	4%	97%	54%	34%	62%	15%	15%	85%	192

2.2.2.2. CD4 and viral load additional indicators

Percentage of ART clients with:

	Viral load measured at 12 months on ART or not eligible	Viral load not detectable at most recent measurement	n
National	27%	10%	540
Region			
Ahafo	53%	34%	15
Ashanti	15%	8%	61
Bono	41%	14%	27
Bono East	41%	13%	15
Central	9%	5%	62
Eastern	16%	10%	63
Greater Accra	12%	8%	70
North East	17%	22%	18
Northern	13%	13%	22
Oti	17%	17%	27
Savannah	22%	11%	13
Upper East	0%	0%	24
Upper West	16%	16%	14
Volta	19%	8%	41
Western	79%	20%	40
Western North	96%	2%	28

Managing authority			
Government/public	26%	9%	467
NGO/private	29%	22%	10
Mission/faith-based	26%	15%	58
Quasi government/university	59%	14%	5
Facility type			
Regional Hospital	31%	21%	16
District Hospital	37%	18%	132
Health Centre	28%	8%	248
Other general Hospital	39%	16%	40
Clinic	22%	15%	21
Polyclinic	22%	13%	55
CHPS	10%	0%	28
Urban/Rural | /Per-urban			
Urban	29%	17%	202
Rural	28%	7%	255
Per-urban	21%	5%	83
Hubs			
Not Hubs	28%	12%	348
Hubs	24%	6%	192

2.2.2.3. TB screening and treatment status

Percentage of ART clients with:

	Cough status recorded at most recent visit	Fever status recorded at most recent visit	Weight loss status recorded at most recent visit	TB exposure status recorded at most recent visit	Active TB and currently enrolled in TB treatment	Active TB and not currently enrolled in TB treatment	TB diagnosed and TB treatment completed while on ART	Eligibility for and receiving INH preventive treatment	n
National	76%	50%	54%	32%	0%	0%	0%	17%	540
Region									
Ahafo	96%	34%	45%	95%	0%	0%	0%	23%	15
Ashanti	79%	37%	51%	63%	0%	0%	0%	31%	61
Bono	49%	43%	43%	35%	0%	0%	0%	25%	27
Bono East	86%	36%	30%	14%	2%	0%	0%	35%	15
Central	77%	62%	65%	17%	1%	0%	0%	10%	62
Eastern	52%	43%	36%	13%	0%	0%	0%	6%	63
Greater Accra	95%	67%	86%	7%	0%	0%	0%	2%	70
North East	54%	51%	47%	2%	0%	0%	0%	3%	18
Northern	28%	26%	25%	52%	0%	0%	0%	4%	22
Oti	92%	83%	64%	37%	0%	0%	0%	4%	27
Savannah	87%	70%	34%	30%	0%	0%	0%	0%	13
Upper East	14%	4%	4%	4%	0%	0%	0%	25%	24
Upper West	91%	46%	37%	14%	1%	0%	0%	20%	14
Volta	78%	22%	18%	71%	3%	0%	0%	34%	41
Western	90%	42%	47%	40%	2%	0%	0%	26%	40
Western North	100%	100%	100%	99%	0%	0%	0%	42%	28

Managing authority									
Government/public	74%	46%	51%	30%	1%	0%	0%	16%	467
NGO/private	96%	93%	93%	27%	0%	0%	0%	19%	10
Mission/faith-based	76%	55%	60%	40%	0%	0%	0%	17%	58
Quasi government/university	100%	79%	79%	48%	0%	0%	0%	43%	5
Facility type									
Regional Hospital	76%	46%	49%	40%	3%	0%	0%	24%	16
District Hospital	85%	54%	56%	44%	1%	0%	0%	26%	132
Health Centre	73%	50%	48%	38%	0%	0%	0%	18%	248
Other general Hospital	81%	64%	67%	41%	0%	0%	0%	17%	40
Clinic	81%	52%	53%	22%	2%	0%	0%	21%	21
Polyclinic	86%	65%	66%	30%	0%	0%	0%	18%	55
CHPS	65%	32%	54%	10%	0%	0%	0%	4%	28
Urban/Rural | /Per-urban									
Urban	80%	54%	57%	41%	1%	0%	0%	23%	202
Rural	70%	45%	50%	31%	1%	0%	0%	16%	255
Per-urban	82%	55%	60%	18%	0%	0%	0%	7%	83
Hubs									
Not Hubs	80%	51%	60%	35%	0%	0%	0%	17%	348
Hubs	70%	47%	45%	27%	1%	0%	0%	16%	192

2.2.3. Preventing mother-to-child transmission of HIV

2.2.3.1. Quality of PMTCT services

Percentage of PMTCT clients with:

	Partner HIV status recorded or note indicating test was offered	A confirmatory test before starting ART	Newborn receiving ARV prophylaxis within 3 days of birth	Infant's HIV test (NAT or PCR) done within 8 weeks of birth and test result available	Infant HIV test result returned to caregiver	Infant started cotrimoxazole preventive therapy (CPT) within 8 weeks of birth	n
National	24%	74%	56%	29%	31%	40%	1,197
Region							
Ahafo	19%	100%	77%	60%	61%	60%	21
Ashanti	17%	79%	69%	20%	26%	38%	143
Bono	4%	18%	5%	5%	5%	5%	67
Bono East	17%	96%	88%	32%	48%	72%	25
Central	55%	99%	93%	55%	67%	89%	77
Eastern	6%	95%	55%	25%	38%	26%	177
Greater Accra	54%	91%	89%	74%	78%	86%	98
North East	26%	95%	58%	15%	15%	33%	33
Northern	40%	95%	28%	10%	11%	2%	103
Oti	5%	100%	44%	9%	12%	36%	48
Savannah	0%	100%	64%	13%	13%	27%	14

Upper East	64%	100%	100%	100%	100%	100%	59
Upper West	0%	42%	12%	3%	3%	4%	82
Volta	17%	97%	79%	19%	24%	46%	101
Western	47%	79%	99%	60%	46%	82%	86
Western North	76%	64%	56%	50%	53%	56%	63
Managing authority							
Government/public	21%	74%	53%	25%	27%	36%	1,002
NGO/private	29%	81%	76%	46%	55%	55%	96
Mission/faith-based	31%	63%	56%	37%	34%	50%	93
Quasi government/university	94%	88%	100%	71%	71%	100%	6
Facility type							
Regional Hospital	36%	96%	88%	74%	73%	72%	16
District Hospital	31%	88%	84%	53%	58%	72%	132
Health Centre	20%	74%	50%	20%	20%	34%	501
Other general Hospital	37%	70%	76%	49%	49%	62%	93
Clinic	24%	74%	45%	31%	30%	45%	92
Polyclinic	40%	93%	89%	52%	59%	69%	58
CHPS	12%	59%	26%	0%	6%	0%	305

Urban/Rural | /Per-urban							
Urban	26%	70%	63%	36%	41%	51%	336
Rural	22%	73%	46%	20%	21%	27%	691
Per-urban	27%	86%	75%	42%	40%	57%	170
Hubs							
Not Hubs	26%	72%	60%	32%	36%	43%	847
Hubs	20%	77%	45%	19%	17%	34%	350

2.2.3.2. Maternal HIV treatment during pregnancy and delivery

Percentage of PMTCT clients with:

	Life-long ART started prior to attending ANC	ARV given during delivery or was on lifelong ART at the time of delivery	n
National	58%	68%	1,197
Region			
Ahafo	80%	77%	21
Ashanti	82%	78%	143
Bono	42%	6%	67
Bono East	80%	96%	25
Central	80%	100%	77
Eastern	59%	82%	177
Greater Accra	35%	100%	98
North East	90%	95%	33
Northern	51%	59%	103
Oti	29%	58%	48
Savannah	68%	87%	14
Upper East	100%	100%	59
Upper West	28%	33%	82
Volta	58%	98%	101
Western	83%	99%	86
Western North	55%	56%	63

Managing authority			
Government/public	56%	65%	1,002
NGO/private	73%	86%	96
Mission/faith-based	57%	73%	93
Quasi government/university	58%	100%	6
Facility type			
Regional Hospital	76%	93%	16
District Hospital	63%	91%	132
Health Centre	61%	63%	501
Other general Hospital	61%	82%	93
Clinic	69%	59%	92
Polyclinic	56%	94%	58
CHPS	42%	46%	305
Urban/Rural | /Per-urban			
Urban	55%	65%	336
Rural	59%	64%	691
Per-urban	62%	90%	170
Hubs			
Not Hubs	55%	70%	847
Hubs	65%	64%	350

2.2.3.3. Maternal postpartum care

Percentage of PMTCT clients with:

	Viral load status documented	n
National	26%	1,197
Region		
Ahafo	84%	21
Ashanti	7%	143
Bono	2%	67
Bono East	49%	25
Central	15%	77
Eastern	11%	177
Greater Accra	65%	98
North East	53%	33
Northern	1%	103
Oti	17%	48
Savannah	13%	14
Upper East	100%	59
Upper West	7%	82
Volta	17%	101
Western	82%	86
Western North	34%	63
Managing authority		

Government/public	24%	1,002
NGO/private	28%	96
Mission/faith-based	29%	93
Quasi government/university	79%	6
Facility type		
Regional Hospital	54%	16
District Hospital	45%	132
Health Centre	19%	501
Other general Hospital	40%	93
Clinic	27%	92
Polyclinic	34%	58
CHPS	6%	305
Urban/Rural | /Per-urban		
Urban	27%	336
Rural	22%	691
Per-urban	36%	170
Hubs		
Not Hubs	28%	847
Hubs	20%	350

2.2.3.4. Exposed infant nutrition at most recent visit

Percentage of PMTCT clients with:

	Infant feeding practices documented at last visit	Caregiver received infant and young child feeding (IYCF) counselling documented at last visit	n
National	35%	31%	1,197
Region			
Ahafo	57%	57%	21
Ashanti	37%	30%	143
Bono	2%	3%	67
Bono East	20%	19%	25
Central	58%	30%	77
Eastern	37%	42%	177
Greater Accra	80%	78%	98
North East	0%	0%	33
Northern	7%	7%	103
Oti	5%	5%	48
Savannah	9%	0%	14
Upper East	100%	100%	59
Upper West	0%	0%	82
Volta	46%	11%	101
Western	72%	67%	86
Western North	55%	56%	63

Managing authority			
Government/public	29%	25%	1,002
NGO/private	74%	74%	96
Mission/faith-based	39%	30%	93
Quasi government/university	100%	86%	6
Facility type			
Regional Hospital	36%	28%	16
District Hospital	44%	34%	132
Health Centre	28%	20%	501
Other general Hospital	67%	59%	93
Clinic	39%	39%	92
Polyclinic	59%	48%	58
CHPS	8%	17%	305
Urban/Rural | /Per-urban			
Urban	41%	30%	336
Rural	27%	27%	691
Per-urban	49%	48%	170
Hubs			
Not Hubs	38%	33%	847
Hubs	28%	26%	350

2.3. Tuberculosis

2.3.1. Tuberculosis

2.3.1.1. Quality of TB services

Percentage of TB clients with:

	Correct TB treatment regimen	Treatment started within 7 days of diagnosis	Most recent drug collection on time	Sputum monitoring results recorded at second month of treatment	Sputum monitoring results recorded at fifth month of treatment	Sputum monitoring results recorded at last month of treatment	Changes in symptoms recorded at every clinical visit	HIV status recorded at least once	Successful treatment	n
National	98%	49%	87%	56%	48%	46%	45%	89%	87%	1,046
Region										
Ahafo	100%	70%	100%	72%	59%	84%	16%	100%	100%	22
Ashanti	100%	78%	78%	68%	59%	61%	33%	93%	95%	124
Bono	96%	64%	88%	52%	54%	65%	67%	88%	87%	55
Bono East	100%	84%	57%	39%	36%	22%	46%	100%	59%	36
Central	100%	47%	95%	69%	66%	42%	35%	91%	84%	83
Eastern	99%	33%	94%	53%	41%	37%	64%	90%	98%	182
Greater Accra	92%	65%	92%	83%	69%	61%	83%	89%	84%	66
North East	97%	81%	90%	40%	18%	24%	8%	65%	82%	27
Northern	98%	69%	96%	62%	48%	44%	57%	87%	74%	90
Oti	92%	21%	82%	44%	22%	43%	69%	96%	84%	50

Savannah	100%	87%	97%	15%	11%	21%	19%	90%	43%	26
Upper East	100%	0%	83%	10%	4%	6%	1%	90%	74%	41
Upper West	97%	39%	71%	45%	31%	29%	4%	92%	92%	86
Volta	87%	50%	67%	24%	17%	25%	53%	68%	80%	73
Western	100%	29%	82%	67%	68%	82%	35%	87%	98%	55
Western North	100%	69%	100%	95%	94%	88%	100%	79%	89%	30
Managing authority										
Government/public	98%	48%	85%	53%	46%	43%	41%	89%	85%	931
NGO/private	100%	77%	100%	100%	48%	35%	100%	92%	93%	33
Mission/faith-based	98%	49%	95%	68%	61%	68%	57%	92%	96%	75
Quasi government/university	100%	50%	100%	83%	72%	61%	78%	83%	100%	7
Facility type										
Regional Hospital	94%	45%	94%	64%	63%	56%	55%	98%	93%	16
District Hospital	99%	52%	92%	61%	54%	53%	51%	93%	94%	132
Health Centre	98%	49%	88%	57%	48%	50%	40%	87%	88%	498
Other general Hospital	99%	57%	95%	75%	64%	69%	50%	93%	94%	56
Clinic	92%	52%	84%	63%	61%	61%	74%	76%	92%	54
Polyclinic	98%	49%	90%	69%	63%	50%	59%	97%	86%	61

CHPS	99%	43%	78%	39%	30%	18%	31%	92%	74%	229
Urban/Rural | /Per-urban										
Urban	96%	52%	90%	62%	56%	52%	47%	90%	88%	302
Rural	99%	47%	83%	49%	43%	39%	44%	90%	83%	591
Per-urban	98%	52%	92%	69%	52%	56%	44%	86%	94%	153
Hubs										
Not Hubs	98%	49%	88%	59%	49%	44%	49%	91%	87%	691
Hubs	98%	49%	84%	51%	47%	48%	36%	85%	86%	355

2.3.1.2. Basis for diagnosis

Percentage of TB clients with diagnosis based on:

	1 positive sputum smear	n
National	71%	1,046
Region		
Ahafo	97%	22
Ashanti	77%	124
Bono	31%	55
Bono East	98%	36
Central	42%	83
Eastern	83%	182
Greater Accra	90%	66
North East	100%	27
Northern	96%	90
Oti	84%	50
Savannah	92%	26
Upper East	89%	41
Upper West	37%	86
Volta	85%	73
Western	35%	55
Western North	43%	30
Managing authority		

Government/public	73%	931
NGO/private	100%	33
Mission/faith-based	54%	75
Quasi government/university	39%	7
Facility type		
Regional Hospital	79%	16
District Hospital	70%	132
Health Centre	70%	498
Other general Hospital	53%	56
Clinic	67%	54
Polyclinic	69%	61
CHPS	82%	229
Urban/Rural | /Per-urban		
Urban	69%	302
Rural	71%	591
Per-urban	74%	153
Hubs		
Not Hubs	71%	691
Hubs	70%	355

2.3.1.3. Screening of contact persons

Percentage of TB clients with:

	List of household contacts documented	All household contacts screened for TB	n
National	48%	43%	1,046
Region			
Ahafo	76%	76%	22
Ashanti	47%	39%	124
Bono	62%	60%	55
Bono East	41%	39%	36
Central	36%	21%	83
Eastern	48%	43%	182
Greater Accra	67%	64%	66
North East	39%	34%	27
Northern	42%	30%	90
Oti	32%	29%	50
Savannah	71%	70%	26
Upper East	14%	14%	41
Upper West	52%	50%	86
Volta	33%	30%	73
Western	64%	62%	55
Western North	97%	97%	30
Managing authority			

Government/public	45%	39%	931
NGO/private	68%	68%	33
Mission/faith-based	57%	55%	75
Quasi government/university	96%	96%	7
Facility type			
Regional Hospital	54%	46%	16
District Hospital	65%	59%	132
Health Centre	47%	43%	498
Other general Hospital	62%	61%	56
Clinic	64%	64%	54
Polyclinic	49%	46%	61
CHPS	26%	15%	229
Urban/Rural | /Per-urban			
Urban	57%	52%	302
Rural	44%	37%	591
Per-urban	45%	43%	153
Hubs			
Not Hubs	50%	44%	691
Hubs	44%	40%	355

2.3.1.4. Patients with HIV/TB co-infection

Percentage of TB clients tested for HIV and:

	With a positive HIV test result	n
National	12%	1,046
Region		
Ahafo	6%	22
Ashanti	19%	124
Bono	13%	55
Bono East	3%	36
Central	7%	83
Eastern	17%	182
Greater Accra	10%	66
North East	34%	27
Northern	3%	90
Oti	6%	50
Savannah	60%	26
Upper East	4%	41
Upper West	1%	86
Volta	8%	73
Western	10%	55
Western North	14%	30
Managing authority		

Government/public	13%	931
NGO/private	0%	33
Mission/faith-based	11%	75
Quasi government/university	22%	7
Facility type		
Regional Hospital	12%	16
District Hospital	11%	132
Health Centre	9%	498
Other general Hospital	10%	56
Clinic	10%	54
Polyclinic	13%	61
CHPS	20%	229
Urban/Rural | /Per-urban		
Urban	13%	302
Rural	13%	591
Per-urban	10%	153
Hubs		
Not Hubs	14%	691
Hubs	8%	355

2.4. Malaria

2.4.1. Malaria

2.4.1.1. Quality of uncomplicated malaria services for children under 5

Percentage of suspected malaria clients with:

	Client or caregiver reported symptoms and conditions documented	Physical examination documented	Temperature measurement documented	Assessment for anaemia documented	n
National	98%	94%	91%	46%	1,562
Region					
Ahafo	99%	87%	87%	38%	32
Ashanti	100%	95%	94%	46%	209
Bono	98%	96%	95%	55%	79
Bono East	100%	99%	99%	53%	68
Central	96%	91%	90%	27%	139
Eastern	96%	96%	92%	39%	205
Greater Accra	99%	91%	91%	48%	152
North East	100%	96%	96%	39%	33
Northern	100%	96%	94%	59%	102
Oti	87%	86%	86%	83%	50
Savannah	99%	90%	89%	51%	44

Upper East	97%	78%	74%	40%	77
Upper West	91%	91%	84%	36%	87
Volta	100%	100%	92%	37%	112
Western	100%	99%	96%	50%	108
Western North	100%	99%	99%	81%	65
Managing authority					
Government/public	98%	93%	91%	44%	1,252
NGO/private	99%	95%	94%	60%	198
Mission/faith-based	98%	99%	97%	64%	102
Quasi government/university	100%	97%	97%	53%	10
Facility type					
Regional Hospital	99%	94%	94%	54%	16
District Hospital	95%	97%	93%	58%	132
Health Centre	99%	97%	95%	55%	590
Other general Hospital	98%	98%	97%	63%	133
Clinic	98%	94%	92%	59%	180
Polyclinic	97%	98%	97%	64%	62
CHPS	98%	93%	90%	41%	449

Urban/Rural | /Per-urban					
Urban	98%	96%	94%	54%	449
Rural	98%	93%	91%	44%	890
Per-urban	99%	93%	92%	49%	223
Hubs					
Not Hubs	98%	93%	91%	46%	1,152
Hubs	98%	96%	94%	49%	410

2.4.1.2. Client reported symptoms

Percentage of suspected malaria clients with:

	Symptoms of anaemia such as fatigue documented	Convulsions or loss of consciousness symptoms documented	Fever symptoms documented	n
National	29%	20%	93%	1,562
Region				
Ahafo	37%	30%	93%	32
Ashanti	33%	22%	95%	209
Bono	33%	16%	89%	79
Bono East	26%	8%	96%	68
Central	29%	12%	89%	139
Eastern	19%	10%	94%	205
Greater Accra	43%	35%	94%	152
North East	8%	4%	99%	33
Northern	28%	17%	98%	102
Oti	5%	1%	76%	50
Savannah	29%	6%	84%	44
Upper East	2%	0%	93%	77
Upper West	10%	13%	79%	87
Volta	31%	31%	93%	112
Western	30%	42%	97%	108
Western North	80%	52%	98%	65

Managing authority				
Government/public	27%	19%	92%	1,252
NGO/private	38%	29%	95%	198
Mission/faith-based	36%	38%	92%	102
Quasi government/university	34%	16%	95%	10
Facility type				
Regional Hospital	41%	29%	95%	16
District Hospital	31%	26%	89%	132
Health Centre	30%	22%	93%	590
Other general Hospital	35%	29%	94%	133
Clinic	40%	31%	95%	180
Polyclinic	38%	28%	92%	62
CHPS	26%	17%	92%	449
Urban/Rural | /Per-urban				
Urban	33%	25%	94%	449
Rural	27%	17%	92%	890
Per-urban	34%	30%	96%	223
Hubs				
Not Hubs	28%	19%	93%	1,152
Hubs	31%	28%	94%	410

2.4.1.3. Diagnostic test services

Percentage of suspected malaria clients with:

	Diagnosis via rapid test	Diagnosis via blood smear	Diagnosis by blood test - method not specified	Diagnosis without documentation of a positive blood test	n
National	73%	12%	0%	14%	1,562
Region					
Ahafo	49%	4%	0%	44%	32
Ashanti	65%	14%	0%	20%	209
Bono	90%	7%	0%	3%	79
Bono East	76%	8%	0%	15%	68
Central	79%	11%	0%	9%	139
Eastern	75%	5%	0%	18%	205
Greater Accra	44%	39%	0%	16%	152
North East	84%	9%	0%	4%	33
Northern	64%	8%	0%	28%	102
Oti	84%	11%	0%	4%	50
Savannah	74%	6%	0%	18%	44
Upper East	86%	8%	0%	6%	77
Upper West	91%	4%	0%	4%	87
Volta	82%	9%	1%	6%	112
Western	85%	9%	0%	5%	108
Western North	85%	7%	0%	8%	65

Managing authority					
Government/public	79%	7%	0%	13%	1,252
NGO/private	28%	49%	0%	22%	198
Mission/faith-based	50%	34%	0%	15%	102
Quasi government/university	18%	66%	4%	13%	10
Facility type					
Regional Hospital	18%	49%	0%	31%	16
District Hospital	27%	52%	1%	19%	132
Health Centre	62%	21%	0%	16%	590
Other general Hospital	23%	56%	0%	20%	133
Clinic	42%	37%	0%	20%	180
Polyclinic	25%	57%	0%	16%	62
CHPS	85%	3%	0%	12%	449
Urban/Rural | /Per-urban					
Urban	43%	35%	0%	22%	449
Rural	83%	5%	0%	11%	890
Per-urban	56%	25%	0%	17%	223
Hubs					
Not Hubs	74%	11%	0%	14%	1,152
Hubs	62%	25%	0%	12%	410

2.4.1.4. Malaria Treatment

Percentage of suspected malaria clients with:

	Anti-malarial medicine prescribed	Artemisinin-based combination therapy (ACT) provided	ACT prescribed at dosages as per national treatment guidelines	n
National	97%	96%	92%	1,562
Region				
Ahafo	100%	100%	87%	32
Ashanti	93%	92%	91%	209
Bono	97%	97%	97%	79
Bono East	98%	98%	95%	68
Central	97%	97%	92%	139
Eastern	97%	97%	92%	205
Greater Accra	99%	99%	94%	152
North East	100%	95%	95%	33
Northern	99%	98%	98%	102
Oti	98%	98%	98%	50
Savannah	94%	90%	79%	44
Upper East	97%	97%	95%	77
Upper West	95%	93%	68%	87
Volta	99%	99%	99%	112
Western	99%	99%	93%	108
Western North	100%	99%	99%	65

Managing authority				
Government/public	97%	97%	92%	1,252
NGO/private	95%	95%	93%	198
Mission/faith-based	96%	95%	91%	102
Quasi government/university	100%	100%	100%	10
Facility type				
Regional Hospital	95%	95%	91%	16
District Hospital	97%	96%	95%	132
Health Centre	97%	96%	93%	590
Other general Hospital	96%	95%	94%	133
Clinic	96%	95%	93%	180
Polyclinic	98%	98%	97%	62
CHPS	97%	97%	92%	449
Urban/Rural | /Per-urban				
Urban	96%	96%	93%	449
Rural	97%	97%	92%	890
Per-urban	96%	95%	94%	223
Hubs				
Not Hubs	97%	96%	92%	1,152
Hubs	98%	98%	95%	410

Sampling facilities and survey weights for the QoC Survey

Table 1: Sampled facilities by region and type for QoC survey

	Facility type							
	Regional Hospital, n (%)	District Hospital, n (%)	Health Centre, n (%)	Other general Hospital, n (%)	Clinic, n (%)	Polyclinic, n (%)	CHPS, n (%)	Total, n (%)
N	16 (0.9)	139 (7.9)	612 (34.9)	159 (9.1)	238 (13.6)	66 (3.8)	522 (29.8)	1,752 (100.0)
Region								
Ahafo	1 (6.2)	6 (4.3)	13 (2.1)	1 (0.6)	5 (2.1)	0 (0.0)	10 (1.9)	36 (2.1)
Ashanti	1 (6.2)	27 (19.4)	97 (15.8)	16 (10.1)	31 (13.0)	8 (12.1)	48 (9.2)	228 (13.0)
Bono	1 (6.2)	12 (8.6)	37 (6.0)	4 (2.5)	10 (4.2)	1 (1.5)	17 (3.3)	82 (4.7)
Bono East	1 (6.2)	4 (2.9)	30 (4.9)	13 (8.2)	4 (1.7)	1 (1.5)	20 (3.8)	73 (4.2)
Central	1 (6.2)	11 (7.9)	43 (7.0)	11 (6.9)	21 (8.8)	15 (22.7)	47 (9.0)	149 (8.5)
Eastern	1 (6.2)	18 (12.9)	79 (12.9)	15 (9.4)	18 (7.6)	2 (3.0)	98 (18.8)	231 (13.2)
Greater Accra	1 (6.2)	11 (7.9)	30 (4.9)	33 (20.8)	84 (35.3)	23 (34.8)	17 (3.3)	199 (11.4)
North East	1 (6.2)	2 (1.4)	16 (2.6)	1 (0.6)	2 (0.8)	1 (1.5)	12 (2.3)	35 (2.0)
Northern	1 (6.2)	9 (6.5)	36 (5.9)	13 (8.2)	10 (4.2)	2 (3.0)	40 (7.7)	111 (6.3)
Oti	1 (6.2)	5 (3.6)	24 (3.9)	2 (1.3)	2 (0.8)	2 (3.0)	19 (3.6)	55 (3.1)
Savannah	1 (6.2)	4 (2.9)	21 (3.4)	2 (1.3)	2 (0.8)	3 (4.5)	14 (2.7)	47 (2.7)
Upper East	1 (6.2)	6 (4.3)	39 (6.4)	11 (6.9)	5 (2.1)	0 (0.0)	43 (8.2)	105 (6.0)
Upper West	1 (6.2)	6 (4.3)	36 (5.9)	6 (3.8)	3 (1.3)	5 (7.6)	33 (6.3)	90 (5.1)
Volta	1 (6.2)	9 (6.5)	51 (8.3)	14 (8.8)	9 (3.8)	3 (4.5)	31 (5.9)	118 (6.7)
Western	1 (6.2)	5 (3.6)	36 (5.9)	12 (7.5)	23 (9.7)	0 (0.0)	46 (8.8)	123 (7.0)
Western North	1 (6.2)	4 (2.9)	24 (3.9)	5 (3.1)	9 (3.8)	0 (0.0)	27 (5.2)	70 (4.0)

Table 2: All Hubs by region and type added to the facility list for QoC survey

	Facility type					
	District Hospital, n(%)	Health Centre, n(%)	Clinic, n(%)	Polyclinic, n(%)	CHPS, n(%)	Total, n(%)
N	2 (0.5)	386 (91.9)	9 (2.1)	4 (1.0)	19 (4.5)	420 (100.0)
Region						
Ahafo	1 (50.0)	11 (2.8)	0 (0.0)	0 (0.0)	0 (0.0)	12 (2.9)
Ashanti	0 (0.0)	67 (17.4)	1 (11.1)	0 (0.0)	2 (10.5)	70 (16.7)
Bono	0 (0.0)	22 (5.7)	1 (11.1)	0 (0.0)	0 (0.0)	23 (5.5)
Bono East	0 (0.0)	18 (4.7)	0 (0.0)	0 (0.0)	3 (15.8)	21 (5.0)
Central	0 (0.0)	27 (7.0)	0 (0.0)	2 (50.0)	0 (0.0)	29 (6.9)
Eastern	0 (0.0)	54 (14.0)	4 (44.4)	0 (0.0)	8 (42.1)	66 (15.7)
Greater Accra	0 (0.0)	16 (4.1)	0 (0.0)	0 (0.0)	2 (10.5)	18 (4.3)
North East	0 (0.0)	12 (3.1)	0 (0.0)	0 (0.0)	0 (0.0)	12 (2.9)
Northern	1 (50.0)	27 (7.0)	0 (0.0)	0 (0.0)	0 (0.0)	28 (6.7)
Oti	0 (0.0)	13 (3.4)	0 (0.0)	2 (50.0)	0 (0.0)	15 (3.6)
Savannah	0 (0.0)	14 (3.6)	0 (0.0)	0 (0.0)	0 (0.0)	14 (3.3)
Upper East	0 (0.0)	26 (6.7)	0 (0.0)	0 (0.0)	1 (5.3)	27 (6.4)
Upper West	0 (0.0)	18 (4.7)	1 (11.1)	0 (0.0)	0 (0.0)	19 (4.5)
Volta	0 (0.0)	23 (6.0)	0 (0.0)	0 (0.0)	0 (0.0)	23 (5.5)
Western	0 (0.0)	22 (5.7)	2 (22.2)	0 (0.0)	1 (5.3)	25 (6.0)
Western North	0 (0.0)	16 (4.1)	0 (0.0)	0 (0.0)	2 (10.5)	18 (4.3)

Table 3: Sampled Hubs by region and type with paired Spokes added to the facility list for QoC survey

	Facility type					
	District Hospital, n(%)	Health Centre, n(%)	Clinic, n(%)	Polyclinic, n(%)	CHPS, n(%)	Total, n(%)
N	2 (1.0)	176 (90.3)	6 (3.1)	1 (0.5)	10 (5.1)	195 (100.0)
Region						
Ahafo	1 (50.0)	4 (2.3)	0 (0.0)	0 (0.0)	0 (0.0)	5 (2.6)

Ashanti	0 (0.0)	27 (15.3)	1 (16.7)	0 (0.0)	1 (10.0)	29 (14.9)
Bono	0 (0.0)	6 (3.4)	0 (0.0)	0 (0.0)	0 (0.0)	6 (3.1)
Bono East	0 (0.0)	7 (4.0)	0 (0.0)	0 (0.0)	2 (20.0)	9 (4.6)
Central	0 (0.0)	13 (7.4)	0 (0.0)	1 (100.0)	0 (0.0)	14 (7.2)
Eastern	0 (0.0)	28 (15.9)	3 (50.0)	0 (0.0)	4 (40.0)	35 (17.9)
Greater Accra	0 (0.0)	8 (4.5)	0 (0.0)	0 (0.0)	1 (10.0)	9 (4.6)
North East	0 (0.0)	5 (2.8)	0 (0.0)	0 (0.0)	0 (0.0)	5 (2.6)
Northern	1 (50.0)	14 (8.0)	0 (0.0)	0 (0.0)	0 (0.0)	15 (7.7)
Oti	0 (0.0)	6 (3.4)	0 (0.0)	0 (0.0)	0 (0.0)	6 (3.1)
Savannah	0 (0.0)	4 (2.3)	0 (0.0)	0 (0.0)	0 (0.0)	4 (2.1)
Upper East	0 (0.0)	16 (9.1)	0 (0.0)	0 (0.0)	0 (0.0)	16 (8.2)
Upper West	0 (0.0)	4 (2.3)	1 (16.7)	0 (0.0)	0 (0.0)	5 (2.6)
Volta	0 (0.0)	11 (6.2)	0 (0.0)	0 (0.0)	0 (0.0)	11 (5.6)
Western	0 (0.0)	16 (9.1)	1 (16.7)	0 (0.0)	0 (0.0)	17 (8.7)
Western North	0 (0.0)	7 (4.0)	0 (0.0)	0 (0.0)	2 (20.0)	9 (4.6)

Table 4: Sampled Spokes by region and type with paired Hubs added to the facility list for QoC survey

	Facility type		
	Clinic, n(%)	CHPS, n(%)	Total, n(%)
N	1 (0.5)	195 (99.5)	196 (100.0)
Region			
Ahafo	0 (0.0)	5 (2.6)	5 (2.6)
Ashanti	0 (0.0)	30 (15.4)	30 (15.3)
Bono	0 (0.0)	6 (3.1)	6 (3.1)
Bono East	0 (0.0)	7 (3.6)	7 (3.6)
Central	0 (0.0)	14 (7.2)	14 (7.1)
Eastern	0 (0.0)	36 (18.5)	36 (18.4)
Greater Accra	0 (0.0)	9 (4.6)	9 (4.6)
North East	0 (0.0)	5 (2.6)	5 (2.6)
Northern	0 (0.0)	15 (7.7)	15 (7.7)
Oti	0 (0.0)	6 (3.1)	6 (3.1)
Savannah	0 (0.0)	4 (2.1)	4 (2.0)
Upper East	0 (0.0)	16 (8.2)	16 (8.2)

Upper West	0 (0.0)	5 (2.6)	5 (2.6)
Volta	0 (0.0)	11 (5.6)	11 (5.6)
Western	1 (100.0)	16 (8.2)	17 (8.7)
Western North	0 (0.0)	10 (5.1)	10 (5.1)

Table 5: Number of facilities surveyed out of QoC sample list

	Facility type Regional Hospital, n(%)	District Hospital, n(%)	Health Centre, n(%)	Other general Hospital, n(%)	Clinic, n(%)	Polyclinic, n(%)	CHPS, n(%)	Total, n(%)
N	16 (1.0)	134 (8.2)	594 (36.2)	145 (8.8)	199 (12.1)	63 (3.8)	490 (29.9)	1,641 (100.0)
Region code								
Ahafo	1 (6.2)	6 (4.5)	13 (2.2)	1 (0.7)	5 (2.5)	0 (0.0)	7 (1.4)	33 (2.0)
Ashanti	1 (6.2)	26 (19.4)	94 (15.8)	14 (9.7)	29 (14.6)	8 (12.7)	43 (8.8)	215 (13.1)
Bono	1 (6.2)	12 (9.0)	37 (6.2)	4 (2.8)	9 (4.5)	1 (1.6)	17 (3.5)	81 (4.9)
Bono East	1 (6.2)	4 (3.0)	30 (5.1)	13 (9.0)	4 (2.0)	1 (1.6)	17 (3.5)	70 (4.3)
Central	1 (6.2)	11 (8.2)	43 (7.2)	11 (7.6)	19 (9.5)	15 (23.8)	46 (9.4)	146 (8.9)
Eastern	1 (6.2)	16 (11.9)	77 (13.0)	15 (10.3)	18 (9.0)	0 (0.0)	94 (19.2)	221 (13.5)
Greater Accra	1 (6.2)	11 (8.2)	27 (4.5)	30 (20.7)	60 (30.2)	22 (34.9)	17 (3.5)	168 (10.2)
North East	1 (6.2)	2 (1.5)	16 (2.7)	1 (0.7)	2 (1.0)	1 (1.6)	11 (2.2)	34 (2.1)
Northern	1 (6.2)	9 (6.7)	36 (6.1)	13 (9.0)	10 (5.0)	2 (3.2)	39 (8.0)	110 (6.7)
Oti	1 (6.2)	5 (3.7)	24 (4.0)	2 (1.4)	2 (1.0)	2 (3.2)	16 (3.3)	52 (3.2)
Savannah	1 (6.2)	4 (3.0)	21 (3.5)	2 (1.4)	2 (1.0)	3 (4.8)	12 (2.4)	45 (2.7)
Upper East	1 (6.2)	5 (3.7)	32 (5.4)	4 (2.8)	2 (1.0)	0 (0.0)	39 (8.0)	83 (5.1)
Upper West	1 (6.2)	6 (4.5)	36 (6.1)	6 (4.1)	3 (1.5)	5 (7.9)	33 (6.7)	90 (5.5)
Volta	1 (6.2)	9 (6.7)	51 (8.6)	14 (9.7)	9 (4.5)	3 (4.8)	28 (5.7)	115 (7.0)
Western	1 (6.2)	4 (3.0)	34 (5.7)	11 (7.6)	18 (9.0)	0 (0.0)	44 (9.0)	112 (6.8)
Western North	1 (6.2)	4 (3.0)	23 (3.9)	4 (2.8)	7 (3.5)	0 (0.0)	27 (5.5)	66 (4.0)

Table 6: Number of Hubs added to the facility list surveyed

	Facility type District Hospital, n(%)	Health Centre, n(%)	Clinic, n(%)	Polyclinic, n(%)	CHPS, n(%)	Total, n(%)
N	2 (0.5)	377 (91.7)	9 (2.2)	4 (1.0)	19 (4.6)	411 (100.0)
Region code						

Ahafo	1 (50.0)	11 (2.9)	0 (0.0)	0 (0.0)	0 (0.0)	12 (2.9)
Ashanti	0 (0.0)	66 (17.5)	1 (11.1)	0 (0.0)	2 (10.5)	69 (16.8)
Bono	0 (0.0)	22 (5.8)	1 (11.1)	0 (0.0)	0 (0.0)	23 (5.6)
Bono East	0 (0.0)	18 (4.8)	0 (0.0)	0 (0.0)	3 (15.8)	21 (5.1)
Central	0 (0.0)	27 (7.2)	0 (0.0)	2 (50.0)	0 (0.0)	29 (7.1)
Eastern	0 (0.0)	54 (14.3)	4 (44.4)	0 (0.0)	8 (42.1)	66 (16.1)
Greater Accra	0 (0.0)	15 (4.0)	0 (0.0)	0 (0.0)	2 (10.5)	17 (4.1)
North East	0 (0.0)	12 (3.2)	0 (0.0)	0 (0.0)	0 (0.0)	12 (2.9)
Northern	1 (50.0)	27 (7.2)	0 (0.0)	0 (0.0)	0 (0.0)	28 (6.8)
Oti	0 (0.0)	13 (3.4)	0 (0.0)	2 (50.0)	0 (0.0)	15 (3.6)
Savannah	0 (0.0)	14 (3.7)	0 (0.0)	0 (0.0)	0 (0.0)	14 (3.4)
Upper East	0 (0.0)	20 (5.3)	0 (0.0)	0 (0.0)	1 (5.3)	21 (5.1)
Upper West	0 (0.0)	18 (4.8)	1 (11.1)	0 (0.0)	0 (0.0)	19 (4.6)
Volta	0 (0.0)	23 (6.1)	0 (0.0)	0 (0.0)	0 (0.0)	23 (5.6)
Western	0 (0.0)	21 (5.6)	2 (22.2)	0 (0.0)	1 (5.3)	24 (5.8)
Western North	0 (0.0)	16 (4.2)	0 (0.0)	0 (0.0)	2 (10.5)	18 (4.4)

Table 7: Number of sampled Hubs with paired Spokes added to the facility list surveyed

	Facility type District Hospital, n(%)	Health Centre, n(%)	Clinic, n(%)	Polyclinic, n(%)	CHPS, n(%)	Total, n(%)
N	2 (1.1)	171 (90.0)	6 (3.2)	1 (0.5)	10 (5.3)	190 (100.0)
Region code						
Ahafo	1 (50.0)	4 (2.3)	0 (0.0)	0 (0.0)	0 (0.0)	5 (2.6)
Ashanti	0 (0.0)	27 (15.8)	1 (16.7)	0 (0.0)	1 (10.0)	29 (15.3)
Bono	0 (0.0)	6 (3.5)	0 (0.0)	0 (0.0)	0 (0.0)	6 (3.2)
Bono East	0 (0.0)	7 (4.1)	0 (0.0)	0 (0.0)	2 (20.0)	9 (4.7)
Central	0 (0.0)	13 (7.6)	0 (0.0)	1 (100.0)	0 (0.0)	14 (7.4)
Eastern	0 (0.0)	28 (16.4)	3 (50.0)	0 (0.0)	4 (40.0)	35 (18.4)
Greater Accra	0 (0.0)	7 (4.1)	0 (0.0)	0 (0.0)	1 (10.0)	8 (4.2)
North East	0 (0.0)	5 (2.9)	0 (0.0)	0 (0.0)	0 (0.0)	5 (2.6)
Northern	1 (50.0)	14 (8.2)	0 (0.0)	0 (0.0)	0 (0.0)	15 (7.9)
Oti	0 (0.0)	6 (3.5)	0 (0.0)	0 (0.0)	0 (0.0)	6 (3.2)
Savannah	0 (0.0)	4 (2.3)	0 (0.0)	0 (0.0)	0 (0.0)	4 (2.1)
Upper East	0 (0.0)	13 (7.6)	0 (0.0)	0 (0.0)	0 (0.0)	13 (6.8)
Upper West	0 (0.0)	4 (2.3)	1 (16.7)	0 (0.0)	0 (0.0)	5 (2.6)
Volta	0 (0.0)	11 (6.4)	0 (0.0)	0 (0.0)	0 (0.0)	11 (5.8)
Western	0 (0.0)	15 (8.8)	1 (16.7)	0 (0.0)	0 (0.0)	16 (8.4)
Western North	0 (0.0)	7 (4.1)	0 (0.0)	0 (0.0)	2 (20.0)	9 (4.7)

Table 8: Number of sampled Spokes with paired Hubs added to the facility list surveyed

	Facility type		
	Clinic, n(%)	CHPS, n(%)	Total, n(%)
N	1 (0.6)	171 (99.4)	172 (100.0)
Region code			
Ahafo	0 (0.0)	2 (1.2)	2 (1.2)
Ashanti	0 (0.0)	26 (15.2)	26 (15.1)
Bono	0 (0.0)	6 (3.5)	6 (3.5)
Bono East	0 (0.0)	5 (2.9)	5 (2.9)
Central	0 (0.0)	13 (7.6)	13 (7.6)
Eastern	0 (0.0)	34 (19.9)	34 (19.8)
Greater Accra	0 (0.0)	9 (5.3)	9 (5.2)
North East	0 (0.0)	4 (2.3)	4 (2.3)
Northern	0 (0.0)	14 (8.2)	14 (8.1)
Oti	0 (0.0)	4 (2.3)	4 (2.3)
Savannah	0 (0.0)	2 (1.2)	2 (1.2)
Upper East	0 (0.0)	13 (7.6)	13 (7.6)
Upper West	0 (0.0)	5 (2.9)	5 (2.9)
Volta	0 (0.0)	9 (5.3)	9 (5.2)
Western	1 (100.0)	15 (8.8)	16 (9.3)
Western North	0 (0.0)	10 (5.8)	10 (5.8)

Sample Weighting

Sampling frame of all facilities without Maternity Clinics/Homes by region

	Facility Type										
Region	CHPS n(%)	Clinic, n(%)	District Hospital, n(%)	Health Centre, n(%)	Hospital, n(%)	Polyclinic, n(%)	Psychiatric Hospital, n(%)	Regional Hospital, n(%)	Teaching Hospital, n(%)	University Hospital/Clinic, n(%)	Total, n(%)
	7,266 (68.4)	1,405 (13.2)	161 (1.5)	1,137 (10.7)	576 (5.4)	65 (0.6)	3 (0.0)	10 (0.1)	6 (0.1)	1 (0.0)	10,630 (100.0)
Ahafo	142 (2.0)	19 (1.4)	6 (3.7)	21 (1.8)	8 (1.4)	1 (1.5)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	197 (1.9)
Ashanti	1,113 (15.3)	199 (14.2)	27 (16.8)	174 (15.3)	195 (33.9)	3 (4.6)	0 (0.0)	1 (10.0)	1 (16.7)	0 (0.0)	1,713 (16.1)
Bono	297 (4.1)	50 (3.6)	11 (6.8)	74 (6.5)	14 (2.4)	0 (0.0)	0 (0.0)	1 (10.0)	0 (0.0)	0 (0.0)	447 (4.2)
Bono East	321 (4.4)	35 (2.5)	7 (4.3)	43 (3.8)	17 (3.0)	1 (1.5)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	424 (4.0)
Central	591 (8.1)	108 (7.7)	14 (8.7)	84 (7.4)	26 (4.5)	17 (26.2)	1 (33.3)	1 (10.0)	1 (16.7)	0 (0.0)	843 (7.9)
Eastern	900 (12.4)	92 (6.5)	18 (11.2)	148 (13.0)	23 (4.0)	5 (7.7)	0 (0.0)	1 (10.0)	0 (0.0)	0 (0.0)	1,187 (11.2)
Greater Accra	925 (12.7)	527 (37.5)	13 (8.1)	50 (4.4)	160 (27.8)	18 (27.7)	2 (66.7)	1 (10.0)	2 (33.3)	1 (100.0)	1,699 (16.0)
North East	115 (1.6)	6 (0.4)	3 (1.9)	23 (2.0)	3 (0.5)	1 (1.5)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	151 (1.4)
Northern	420 (5.8)	49 (3.5)	9 (5.6)	71 (6.2)	36 (6.2)	1 (1.5)	0 (0.0)	1 (10.0)	1 (16.7)	0 (0.0)	588 (5.5)
Oti	196 (2.7)	9 (0.6)	5 (3.1)	40 (3.5)	3 (0.5)	2 (3.1)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	255 (2.4)
Savannah	198 (2.7)	12 (0.9)	5 (3.1)	32 (2.8)	3 (0.5)	5 (7.7)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	255 (2.4)
Upper East	527 (7.3)	50 (3.6)	6 (3.7)	81 (7.1)	15 (2.6)	1 (1.5)	0 (0.0)	1 (10.0)	0 (0.0)	0 (0.0)	681 (6.4)
Upper West	486 (6.7)	22 (1.6)	8 (5.0)	76 (6.7)	4 (0.7)	4 (6.2)	0 (0.0)	1 (10.0)	0 (0.0)	0 (0.0)	601 (5.7)
Volta	351 (4.8)	50 (3.6)	11 (6.8)	118 (10.4)	20 (3.5)	3 (4.6)	0 (0.0)	1 (10.0)	1 (16.7)	0 (0.0)	555 (5.2)
Western	431 (5.9)	142 (10.1)	11 (6.8)	65 (5.7)	37 (6.4)	3 (4.6)	0 (0.0)	1 (10.0)	0 (0.0)	0 (0.0)	690 (6.5)
Western North	253 (3.5)	35 (2.5)	7 (4.3)	37 (3.3)	12 (2.1)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	344 (3.2)