

REPORT



Ghana Harmonized Health Facility Assessment 2022-2023

June 2023

Foreword

The availability and quality of health services are foundational pillars in the pursuit of Universal Health Coverage (UHC) and the attainment of health-related Sustainable Development Goals (SDGs). In Ghana, significant efforts have been made to assess the state of health facilities and services to strengthen the country's progress towards UHC. One such effort is the Harmonised Health Facility Assessment (HHFA), which was conducted in 2022.

The adoption of the WHO Harmonised Health Facility Assessment (HHFA) in Ghana has ushered in a new era of standardized and comprehensive evaluation of health service availability, readiness, and quality. This assessment has equipped us with reliable and objective data on the capacity of our healthcare facilities to provide services at the required standards of quality. Such data is instrumental in shaping evidence-based decision-making and supporting health sector reviews, thus fortifying our nation's healthcare services.

The HHFA spans all essential facility services and management systems, structured within four modules: service availability, service readiness, quality of care, and management and finance. This assessment encompassed a wide array of health facilities across Ghana, including both government-owned and privately managed ones. Our sampling methodology, a blend of purposive and random procedures, ensured a robust sample of 1,421 facilities, contributing to a comprehensive analysis.

Collaborative engagements with the Ministry of Health (MoH) and other health agencies and partners played a pivotal role in overseeing and governing the HHFA's implementation. These collaborations not only mobilized resources but also delineated objectives and ensured that the assessment's scope aligned seamlessly with our national health priorities. The outcomes from the HHFA presented in this report, furnish us with a comprehensive evaluation of Ghana's health system and its ramifications on health outcomes.

The findings from the HHFA will serve as foundational data for costing health investments outlined in Ghana's Universal Health Coverage (UHC) Roadmap 2030. This report scrutinizes the survey results across critical programmatic areas, spotlighting areas of progress while highlighting indicators that require our focused attention and improvement. It is designed to guide policymakers and implementers in devising targeted interventions that bridge gaps in health service provision and steer advancements in service availability, readiness, and governance. The results from the HHFA are supposed to be used also for advocacy to drive investment in the health sector.

The Ghana Health Service (GHS) shoulders the critical responsibility of harnessing the survey data to shape and update policies and planning, ensuring that gaps in health service provision are systematically addressed. Furthermore, the support received in the realm of health information systems, monitoring, and evaluation enhances efficiency, transparency, and accountability within our health system. By investing in quality and actionable health data, Ghana accelerates its march toward improving access to quality healthcare outcomes.

The timing of the HHFA is opportune, aligning with the introduction of the Network of Practice (NoP) into our healthcare delivery system. Insights garnered from the HHFA will empower policymakers and implementers to fortify existing facilities at all levels, facilitating the judicious

allocation and utilization of our limited health resources. Ultimately, this will elevate the quality of healthcare delivery, bolstered by enhanced service availability, readiness, and governance.

The findings and recommendations encapsulated in this report will steer future interventions and investments, ensuring access to quality health services for all Ghanaians.

Our heartfelt appreciation extends to the World Health Organization (WHO), whose unwavering support—both financial and technical—has been instrumental in propelling this agenda forward. We express gratitude to all who contributed to the successful implementation of this assessment, particularly the dedicated G-HHFA survey team.

Thank you for your commitment to enhancing the health and well-being of the people of Ghana.



DR PATRICK KUMA-ABOAGYE
DIRECTOR - GENERAL
GHANA HEALTH SERVICE

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List of Abbreviations

ANC	Antenatal care
ART	Antiretroviral
BEmONC	Basic Emergency Obstetric and Newborn Care
CEmONC	Comprehensive Emergency Obstetric and Newborn Care
CHAG	Christian Health Association of Ghana
CHN	Community Health Nurse
CHPS	Community-based Health Planning and Services
CHWs	Community Health Workers
CPAP	Continuous Positive Airway Pressure
CSO	Civil Society Organisation
CSPro	Census and Survey Processing System
DHIMS2	District Health Information Management Systems
DHMT	District Health Management Team
DP	Development Partners
EmONC	Emergency Obstetric and Newborn Care
EPI	Expanded Programme on Immunization
FBO	Faith-Based Organization
FCDO	Foreign, Commonwealth and Development Office
FDA	Food and Drugs Authority
GHS	Ghana Health Service
G-HHFA	Ghana Harmonized Health Facility Assessment
HHFA	Harmonized Health Facility Assessment
HMIS	Health Management Information System
IMCI	Integrated Management of Childhood Illnesses
IPC	Infection Prevention and Control
IPTp	Intermittent Preventive Treatment of malaria during pregnancy
KMC	Kangaroo Mother Care
M&E	Monitoring and Evaluation
MCH	Maternal and Child Health
MFL	Master Facility List
MoH	Ministry of Health
NCDs	Non-communicable Diseases
NEQA	National External Quality Assessment
NHIA	National Health Insurance Authority

NHIS	National Health Insurance Scheme
NHRC	Navrongo Health Research Centre
NTDs	Neglected Tropical Diseases
PHC	Primary Health Care
PLWHA	People Living with HIV/AIDS
PMTCT	Prevention of Mother to Child Transmission
PPMED	Policy, Planning, Monitoring and Evaluation Division
RDD	Research Development Division
RDT	Rapid Diagnostic Test
SAM	Severe Acute Malnutrition
SARA	Service Availability and Readiness Assessment
SDG	Sustainable Development Goals
SDI	Service Delivery Indicators
SoPs	Standard Operating Procedures
STI	Sexually Transmitted Infections
UHC	Universal Health Coverage
UNICEF	The United Nations Children's Fund
USAID	United States Agency for International Development
WB	World Bank
WHO	World Health Organization

Executive Summary

Ghana conducted the WHO Harmonized Health Facility Assessment (HHFA) as part of efforts in the health sector to strengthen and improve health care delivery and ensure equitable access to quality basic health care in the country. The HHFA is a comprehensive service availability and readiness survey of all levels of health delivery that will help determine the status of health facilities and identify gaps in service availability and readiness in the country. It uses a comprehensive external review tool that assesses whether health facilities have the appropriate systems in place to deliver services at the required standards of quality. The overall goal of conducting the Ghana HHFA is to generate comprehensive facility-based information on the availability, readiness and quality of health services in Ghana.

This report presents the thematic scope and contents, implementation approaches adopted and describes the findings and recommendations of the HHFA survey. It focuses on all the key areas of service delivery including:

- Reproductive, Maternal, Newborn, Child Health, Adolescent Health, Immunisation
- Malaria, Tuberculosis, HIV/AIDS and NTDs
- Non-Communicable Diseases
- Surgery, Emergency, Palliative, and Rehabilitation Care
- Overall General Service Availability and Readiness
- Management and Governance

The report documents: (1) Introduction which encompasses the health system in Ghana, country profile, health sector in Ghana; (2) Rationale which encompasses the background of HHFA in Ghana and the findings of the G-HHFA and (3) Recommendations on the various service delivery areas.

The summary of key findings are as follows:

Reproductive, Maternal, Newborn, Child and Adolescent Health

- ⇒ Service availability is above 80% for most key RMNCAH services. More facilities below the level of polyclinic could be equipped and supported to deliver antenatal care, basic delivery care, abortion care, and preventive child health services.
- ⇒ Not all the facilities have a staff member who has received training in the previous two years prior to the survey to deliver the services they offered. Among facilities that offer ANC services, 58% have staff who have received ANC training in the past two years. Among facilities that offer delivery services, 45% have staff who have received training in essential newborn care in the past two years. Among facilities offering child health services, 29% have staff who have received training in the Integrated Management of Childhood Illnesses (IMCI) in the past two years.

- ⇒ While 97% of government hospitals provide family planning services, only 67% of privately owned or mission hospitals provide these services.
- ⇒ Among facilities that offer family planning services, availability of contraceptives is low. On average, only 69% of facilities that offer family planning services have oral contraceptives, and 32% have intrauterine contraceptive devices (IUCDs). IUCD is only provided in family planning clinics with midwives.
- ⇒ Over 80% of facilities offer most antenatal services, including monitoring for hypertensive disorders, micronutrient supplementation, IPTp, and routine checks for urine protein. Few facilities offer calcium supplementation and low dose aspirin for women at risk of pre-eclampsia.
- ⇒ All hospitals are expected to offer all emergency obstetric and newborn care services. However, 17% of district hospitals and 49% of other general hospitals do not offer all 7 basic emergency obstetric and newborn care (BEmONC) signal functions. Also, 17% of district hospitals and 53% of other general hospitals do not offer all 9 comprehensive emergency obstetric and newborn care (CEmONC) signal functions.
- ⇒ Most lower-level facilities do not provide all 7 BEmONC signal functions: only 39% of polyclinics and 10% of health centres offer the service. Only 43% of health centres that offer delivery services provide removal of retained products, and 21% of health centres provide assisted vaginal delivery.
- ⇒ The availability of life-saving commodities such as oxytocin injection, magnesium sulfate injection, and misoprostol tablets is high at hospitals (above 96%), but low at health centres and CHPS. Only 44% of health centres and 14% of CHPS have newborn resuscitation equipment. These commodities are only expected to be available in facilities with midwives.
- ⇒ Most hospitals provide all CEmONC services, but only 33% of polyclinics provide cesarean section. Among facilities that offer CEmONC services, only 63% of regional hospitals and 41% of district hospitals had a functional anaesthesia machine at the time of the survey.
- ⇒ While 96% of district hospitals offer abortion care, 54% of health centres and 17% of CHPS offer this service.
- ⇒ The majority (93%) of all facility types offer at least some preventive and curative services for children under 5.
- ⇒ Only 47% of all facilities offer outpatient management of severe acute malnutrition without complications in children under five. Only 54% of all facilities have child and infant weighing scales.
- ⇒ Infant and child immunisations are offered in 83% of facilities. 25% of facilities offer these services daily. However, the EPI Policy recommends daily immunization in all facilities providing this service.

- ⇒ 84% of facilities offer any adolescent/adult immunization. Specifically, 79% of facilities offer tetanus vaccination, while 5% offer Human Papilloma Virus (HPV) or influenza vaccines for adolescents/adults.
- ⇒ There is high availability of immunization materials across all facility levels and most facilities have staff recently trained in immunization service delivery. More training is needed on topics such as Data Quality Survey and Reaching Every District.
- ⇒ Close to 50% of facilities have staff who had received training in the past two years to offer adolescent health services, including sexual and reproductive health.

Malaria, TB, HIV and NTDs

- ⇒ Malaria diagnosis and treatment are offered at almost all health facilities across Ghana (97% of all facilities). HIV testing is offered in 85% of health facilities, but only 27% of facilities offer antiretroviral therapy. TB diagnosis and treatment services are lagging (19% of all facilities), as are services for neglected tropical diseases (25% of all facilities).
- ⇒ Most facilities that offer malaria services have staff who have received training in the past two years to diagnose and treat malaria (88%). However, the same is not true for HIV and TB. About half of the facilities that offer HIV and TB services have not had any staff receive training on these services in the two years preceding the survey.
- ⇒ Malaria diagnosis by rapid diagnostic test (RDT) is offered at most facilities across Ghana. However, diagnosis by microscopy is much more limited, currently available in 39% of facilities. Availability is however above 96% of hospitals and polyclinics and over 50% of lower-level facilities except CHPS (service not expected at this level).
- ⇒ Across all facilities that provide Malaria or HIV services, only 50% had hand hygiene items (such as soap, alcohol, latex gloves, and paper towels) and only 41% had appropriate storage of non-sharp infectious waste at the time of the survey.
- ⇒ While there is high availability of HIV testing across all facilities in Ghana, other aspects of HIV care – including paediatric services, HIV care and support, and access to antiretroviral therapy – are mostly only available at hospitals and polyclinics.
- ⇒ Overall, 73% of facilities offer HIV testing to pregnant women during the antenatal period and delivery, and 62% of facilities offer antiretroviral (ARV) prophylaxis to newborns of HIV-positive pregnant women for prevention of mother to child transmission (PMTCT).
- ⇒ For children under 5, HIV testing is available at 52% of all facilities. However, fewer facilities offer antiretroviral therapy or HIV care and support services for children (17% and 19% respectively).

- ⇒ Tuberculosis diagnosis and treatment services are not readily available. On average, only 19% of facilities offer these services, of which most are hospitals and polyclinics.
- ⇒ Services for NTDs vary across facility types, with health centres, clinics, maternity homes and CHPS offering fewer services for any NTDs compared to higher-level facilities.

Non-Communicable Diseases (NCDs)

- ⇒ Over 98% of hospitals and polyclinics offer at least one key service for non-communicable diseases (NCDs). Cardiovascular disease, diabetes, and chronic respiratory disease services are offered by over 94% of facilities, while specific cancer screening service availability ranges from 6% to 39% of facilities.
- ⇒ Not all facilities that offer NCDs services have staff that have been trained to deliver these services in the past two years. Staff trained over the past two years across the various service areas were found in an average of 50% of facilities for cardiovascular diseases, 47% of facilities for diabetes mellitus and 44% of facilities for chronic respiratory diseases.
- ⇒ Only 25% of hospitals or polyclinics offering services for survivors of rape, sexual or intimate partner violence or for children affected by maltreatment have staff who have received training for these services in the two years preceding the survey.
- ⇒ Over 80% of facilities have individual patient cards or files for NCDs patients. Appointment systems for follow-up and databases for treatment and outcomes are lower, ranging from 61% to 73% of facilities.
- ⇒ Diagnosis and treatment of hypertension is available at over 90% of all facility types. Services for diagnosis and treatment of other cardiovascular diseases – congestive heart failure, acute myocardial infarction, and stroke – vary greatly depending on facility type, ranging from 100% of regional hospitals to a low of 41-56% of polyclinics offering these services.
- ⇒ The availability of diabetes services is high (above 97%) across all hospitals and polyclinics. However, these services are available in only around 57-64% of health centres and clinics, and 3-9% of CHPS facilities (not expected to be provided at this level).
- ⇒ While many facilities offer services for the diagnosis and treatment of asthma (89-96%), there is a range in availability by facility type for diagnosis and treatment services of chronic obstructive pulmonary disease (COPD), with between 61-94% of hospitals and 45% of polyclinics offering these services.
- ⇒ Regional hospitals offer the highest availability of cancer services (68%) across cancer types, followed by district hospitals (58%). In general, aside from breast and cervical cancer, fewer than half of hospitals offer services for any type of cancer. Services are lowest for colorectal

cancer, with only 37% of regional hospitals and 8% of district hospitals providing this service.

- ⇒ There is a lack of tracking of cancer patients at facilities that offer cancer services, with less than 25% having a follow-up of outcome or entry into a facility or national cancer registry.
- ⇒ Less than 13% of facilities offering cervical cancer services have any equipment for the management of cervical cancer.
- ⇒ Services for mental health and neurological disorders are more readily available in higher-level public-owned hospitals (>95%), polyclinics (93%), and health centres (62%), than in non public-owned hospitals and clinics (less than 32%).
- ⇒ There is a clear lack of services for mental health and neurological disorders at non-governmental/private facilities compared to government/public, mission/faith-based and quasi-government/university facilities.
- ⇒ Non-government hospitals are less likely to offer services for survivors of rape, and sexual or intimate partner violence than regional hospitals, district hospitals and polyclinics.

Surgery, Emergency, Palliative and Rehabilitative Care

- ⇒ Most hospitals and polyclinics offer minor surgical procedures (97%), major surgical procedures (84%), and emergency services (93%). Palliative care is offered at around half of hospitals and a small number of polyclinics. Rehabilitation care is offered at most regional hospitals (94%) and a limited number of other facilities.
- ⇒ Most facilities offering palliative care or emergency services do not have staff who have received training in the past two years preceding the survey and have no guidelines for those services.
- ⇒ Minor surgical procedures are offered at almost all hospitals and polyclinics. However, only 50% of regional hospitals, 56% of district hospitals, and 21% of polyclinics had minor surgical kits to perform procedures at the time of the survey.
- ⇒ Two-thirds of facilities (66%) surveyed conduct surgeries (either minor or major); only 16% of facilities provide major surgical procedures (defined as the three Bellwether surgical procedures i.e. caesarean section, reduction and fixation of open long-bone fractures and laparotomy). Although over 85% of hospitals provide major surgical procedures, only 3% of all facilities reported providing all three Bellwether surgical procedures, made up of 43% of regional hospitals, 20% of district hospitals and 19% of other general hospitals.
- ⇒ Laparotomy is offered at most hospitals (72-100%), but cataract surgery (9-81%) and open reduction and fixation for fracture (19-43%) are only offered in some hospitals.

- ⇒ Most infection prevention and control items are available in facilities offering major surgery services, although some facilities lack these items. Essential infrastructure for surgical services, such as a marked point for surgical infection preventive practices, a scrub site with running water, and a defined closed space for storage of sterile items, are available in over 80% of facilities providing major surgery services.
- ⇒ Most facilities that offer blood transfusion services lack blood storage facilities (38% availability). Similarly, blood typing and cross-matching capacity are relatively low (65% and 31% respectively) in these facilities.
- ⇒ 24-hour medical and nursing staff onsite in emergency units are not available in all facilities that provide emergency services, with availability ranging from 81% of regional hospitals to 64% of district hospitals, 43% of other general hospitals, and 40% of polyclinics.
- ⇒ Less than 55% of hospitals and polyclinics offering emergency services have any cardiac intervention services.
- ⇒ Key medicines, including adrenaline, glucose, magnesium sulfate, and opiate analgesic, are available at most (68-94%) hospitals and many (47-58%) polyclinics where emergency services are provided.
- ⇒ Essential equipment for breathing interventions (including pulse oximeter, nebuliser and attachments, resuscitation bag and masks) are available in about 40% of facilities providing emergency services. Continuous Positive Airway Pressure (CPAP) equipment and chest tubes with insertion set and underwater seal bottle are relatively unavailable.
- ⇒ Of facilities that offer oxygen services, most have reliable oxygen services and pulse oximeters. However, the supply of oxygen itself ranges from 65% to 94%.
- ⇒ Palliative care is only offered at a minority of hospitals and polyclinics. Home-based palliative care services are only available at 5-21% of hospitals and polyclinics.
- ⇒ Rehabilitative care or physiotherapy services are available at 94% of regional hospitals but at less than half of other facility types.

Overall General Service Availability and Readiness

- ⇒ Only 38% of all facilities offering inpatient services have dedicated isolation beds. 74% of regional hospitals, 68% of district hospitals, and 36% of other general hospitals offering inpatient services had dedicated isolation beds.
- ⇒ Overall, 32% of facilities have access to an emergency transport system for patients. The primary level had the least access to emergency transport systems (18% of CHPS, 29% of health centres, 39% of polyclinics, and 40% of clinics and maternity homes)

- ⇒ 28% of facilities have a computer with internet and only 51% of facilities have a communication system in place. CHPS was the facility type with the lowest availability of communication systems (36%).
- ⇒ All regional hospitals and 92% of district hospitals have improved sanitation facilities for clients. All regional hospitals and 98% of district hospitals have an improved water source.
- ⇒ Availability of basic equipment for examinations and measurement is lower than required. Overall, only 5% of facilities had the full complement of basic consulting room examination set and physiological measurement and anthropometric equipment. Of these, 38% of facilities had an examination light, 43% of facilities had a pulse oximeter, and 58% and 70% of facilities had an infant and child scale respectively.
- ⇒ Hospital owned medical oxygen sources are not as widely available as required. Only 54% of regional hospitals had oxygen available and 63% of regional hospitals had reliable oxygen therapy services.
- ⇒ At least 8 out of 10 regional hospitals had equipment available for life support and intensive care procedures (Defibrillation - 94%; electrocardiogram (ECG) - 81%, infant incubation - 94%; phototherapy, mechanical ventilation, oxygen administration and blood transfusion - 100%). In districts and other hospitals as well as polyclinics, equipment for life support and intensive care procedures was less available, especially for defibrillation, ECG, infant incubation, and phototherapy.
- ⇒ General purpose ultrasound and x-ray services are the only imaging modalities available in at least 7 out of 10 district and regional hospitals. Overall, availability of medical imaging equipment and services is limited (27% for ultrasound and 6% for X-ray). High end modalities for specialized diagnostic imaging procedures are lacking, with less than 20% of regional hospitals offering mammogram, computed tomography (CT) scan, magnetic resonance imaging (MRI), and fluoroscopy services. With regards to gastrointestinal endoscopy, colonoscopy was available in 12% of regional hospitals.
- ⇒ Availability of standard precautions for infection prevention and control was generally low across all facility types. Nationally, only 31% of facilities had guidelines for standard precautions, 16% had guidelines for healthcare waste management, and 32% had staff trained in healthcare waste management.
- ⇒ Among facilities with a main facility pharmacy store, 55% had medicines off the floor, 86% had medicines protected from water, and 84% had medicines protected from direct sunlight.
- ⇒ Only 10% of facilities with a main facility pharmacy store had a functional thermometer/thermostat and 4% of facilities with current room temperature - 15⁰C to 25⁰C (inclusive).

- ⇒ Only 30% of facilities with a bulk facility pharmacy store meet the required standard of having a functional fridge with a temperature of 2-8 degrees Celsius, clean, and used only for pharmaceuticals.

Management and Governance

- ⇒ Most facilities (62%) had a management committee responsible for overall facility management.
- ⇒ Routine systems for eliciting community input in facility management decisions are uncommon, with only 45% of facilities having such systems. However, 7 out of 10 facilities had in place formal systems for linking services with Community Health Workers (except in other general hospitals and clinics/maternity homes).
- ⇒ About a quarter of the facilities surveyed (23%) had an annual budgeted work plan.
- ⇒ Over 90% of regional hospitals, district hospitals and polyclinics had received an external financial audit.
- ⇒ Most facilities charged user fees for any outpatients department (OPD) services. However, these user fees or the written guidelines for user fees were not visibly posted in most facilities.
- ⇒ Overall, one out of ten facilities (11%) had a written fire safety plan. Three out of ten facilities had a strategy to meet staffing needs in an emergency. Availability of emergency preparedness systems is more common in hospitals and polyclinics than the lower-level facilities.
- ⇒ On average, 29% of facilities have a system and guidelines to monitor adverse events (ranging from 33% in other general hospitals to 57% in regional hospitals). Systems and guidelines to monitor nosocomial infections are less common (17%), ranging from 19% in polyclinics to 50% in regional hospitals.
- ⇒ Nationally, management systems for infection prevention and control (IPC) were absent in most of the facilities surveyed; national scores were below 30% for each of the IPC indicators.
- ⇒ At least half of the facilities had external assessment against standards except for the National External Quality Assessment (NEQA) certification system for any services.
- ⇒ Nationally, 54% of facilities reported having a routine quality assurance process for any service area.
- ⇒ Sixteen percent of facilities had an established routine external quality assessment mechanism for at least one laboratory test. This was mostly reported by the hospitals, especially regional hospitals (74%) and district hospitals (68%).

- ⇒ Majority of facilities (74%) have a routine system for checking the quality of data compiled for reports, but only 17% of facilities had a written policy for data quality checking.
- ⇒ Most facilities assessed had unique patient identifiers for curative OPD services and individual patient records for outpatients. However, 82% of facilities (especially CHPS, clinics/maternity homes and health centres) use only standardized paper individual patient records for outpatients. Four out of ten facilities (hospitals and clinics/ maternity homes) used only standardized electronic individual patient records for outpatients.
- ⇒ At least 9 out of 10 facilities had unique identifiers and individual patient records for inpatient and individual patient records for all categories of facilities. The use of paper individual patient records for inpatients was non-existent in the regional hospitals but very high (100%) at the CHPS level.

Introduction

The government of Ghana strives to strengthen and improve health care delivery and ensure equitable access to quality basic health care for the population. Ghana's "National Health Policy: Achieving Universal Health Coverage (UHC) (2019-2030)" and "The UHC Roadmap (2020 – 2030)" both emphasize equitable access to quality primary care services for the population. Primary Health Care (PHC) is the foundation of the country's UHC Roadmap, which aims to improve access to essential services for the poor and vulnerable while protecting households from the risk of impoverishment due to catastrophic expenditure on health care.

To operationalize the UHC Roadmap, the Health Sector Medium-Term Development Plan (HSMTDP) (2022-2025) was developed. The national strategy to reform and strengthen the PHC system to address gaps in access, quality and equity is the establishment of Networks of Practice (NoPs) and the Model Health Centres. The NoPs will deliver accessible and high-quality care with a population focus. The overall goal of Networks of Practice is to increase access to quality essential health care and population-based services for all by 2030.

The Ghana Universal Health Coverage Roadmap identifies Networks of Practice as a key strategy for achieving Universal Health Coverage in the country. These networks are intended to "maximize efficiencies in the use of resources towards improving quality and coverage" by connecting primary care service points around a model health centre. The sub-district networks will include public and private service providers and will be nested within a district with strong linkages to district hospitals. The Government of Ghana has identified health centres, a level of care that falls between first-level hospitals and health posts (community-based health planning and services facilities), as the "hubs" for the networks of practice. This level of care is relatively under-utilized by populations who tend to bypass it for higher-level care in hospitals.

Over the years, data from the health and other sectors have been used to measure the availability and access to health care, coverage of interventions, their outcomes and the health status of Ghanaians. The typical sources of data include routine health management information systems, civil registration and vital statistics, health system data, rapid health facility assessments, household surveys and censuses. The data from these sources have informed policy decisions and interventions to further strengthen health delivery. Nonetheless, there is still a need for innovative methods of data collection to provide more comprehensive data to assess health service delivery inputs and outputs in Ghana.

Health facility assessment is used to generate information on service availability, readiness, and quality of care, and data from these assessments provide valuable information on the status of health facilities in the country. Such assessments must be comprehensive enough (in terms of coverage and

content) to inform ongoing innovations in healthcare delivery. A comprehensive service availability and readiness survey at all levels of health delivery in the country will help determine the status of health facilities and identify gaps in service availability and readiness in the country for improvement.

The Health System in Ghana

Ghana has a hierarchical health system structure as seen in many other countries around the world. The Ministry of Health (MoH) is the apex body charged with the responsibility to formulate policies, mobilise resources for the implementation of the policies, and monitor and evaluate them to improve the health outcomes of the population. The MoH has twenty-eight (28) agencies that have specific health-related mandates to implement policies and programmes of the sector.

The health services delivery is organised along a three-tier arrangement (primary, secondary and tertiary levels), with government, development partners, civil societies and the private sector all playing a part. This pluralistic nature of the health system was realised following a reform in 1996 to adopt a Sector Wide Approach (SWAp)¹ in the sector, and the subsequent passage of the Ghana Health Service and Teaching Hospitals Act (Act 525) in the same period. Since then, other agencies have also been created to perform regulatory and health financing functions.

Despite these achievements, there are gaps in the number of health facilities, logistics and equipment which need to be addressed to accelerate progress towards the attainment of the related Sustainable Development Goals (SDGs), particularly UHC.

Country Profile

Ghana is bordered to the south by the Atlantic Ocean, to the east by Togo, to the west by Cote d'Ivoire and the north by Burkina Faso. It covers an area of 238,535 km² (92,099 sq m), spanning diverse biomes that range from coastal savannas to tropical rainforests. It is the second most populous country in West Africa, after Nigeria, with a population of approximately 31 million people and an annual growth rate of 2.1 percent².

There are 16 administrative regions in Ghana, which are further divided into 261 local Metropolitan, Municipal and District Assemblies (MMDAs). These MMDAs develop, plan, and mobilise resources for the development of their localities. Politically, the country has made major strides toward democracy under a multi-party system in the past two decades. It has a stable political

¹ 2015 National Health Accounts

² 2021 population and housing census

economy, with Presidential and Legislative elections held every four years since the inception of the fourth Republic after the promulgation of the 1992 constitution³. This has contributed to its ranking as one of the top three African countries for freedom of speech and press.

Ghana is also a multi-ethnic country with a diverse population and linguistic and religious groups. Three out of the nine major ethnic groups (Akan, Mole-Dagbani and Ewe), constitute more than three-quarters (77 percent) of the population⁴. Most of the population (more than 70 percent) are Christian; close to one-fifth are Muslims; and one-tenth practise traditional faiths or report no religion. Over the years, the country has performed relatively well in healthcare, economic growth, and human development.

Economically, Ghana grew at an average of 7 percent per year between 2017 and 2019. This rapid growth, however, was halted by the COVID-19 pandemic, the March 2020 lockdown, and a sharp decline in commodity exports, among other factors. The economic slowdown had a considerable impact on households. The poverty rate is estimated to have increased slightly from 25 percent in 2019 to 25.5 percent in 2020. After slowing to 0.5 percent in 2020, growth rebounded to 5.4 percent in 2021, largely influenced by the agriculture and services sectors⁵.

Gross Domestic Product (GDP) growth is expected to average 3.3 percent over 2022-2024 as macroeconomic instability and corrective policy measures depress aggregate demand. The fiscal deficit is projected to remain high in 2023 (9.2 percent of GDP) and beyond. Improvements are projected to take place gradually with contributions from revenues and expenditures.

The Health sector in Ghana

Ghana's health system follows the same decentralized system for planning, budgeting, reporting, information systems, performance measurement and financial transfer mechanisms as the assemblies [4]. The health sector is administered by the Ministry of Health (MOH). The MOH is responsible for policy formulation, monitoring and evaluation of health service delivery throughout the country, resource allocation for health services and regulating health services delivery. The MOH also develops the framework for food, drugs and health service delivery regulations.

The Ghana Health Service (GHS) is an autonomous executive agency responsible for implementing national health policies under the MOH. There are three levels of management in the Ghanaian health sector which comprise the national, regional and district-level management systems. Functionally, however, the Ghana Health Service is organised at the National, Regional, District,

³ 2015 National Health Accounts

⁴ 2021 population and housing census

⁵ World bank (2022) Ghana: Recent economic development and outlook for Ghana

Sub-district and Community Levels and health services are delivered under primary, secondary and tertiary health care systems.

The Teaching Hospitals function as semi-autonomous health institutions with responsibility for tertiary-level healthcare under a board appointed by the President. Tertiary and specialized care is provided through teaching hospitals, university hospitals and psychiatric hospitals. These are the hubs for training health professionals and the provision of tertiary services to clients referred from the lower levels in the country.

Secondary-level health care services are delivered at the regional hospitals. Regional hospitals provide both public health and clinical services and serve as referral points for facilities from the district level and below. The Regional Health Administration or Directorate provides supervision and management support to the districts and sub-districts within each region.

The District Health Management Team (DHMT) provides supervision over the sub-districts. Districts have an average of 4-6 sub-districts. Within these sub-districts are the hospitals, health centres, clinics and community-based health planning and services (CHPS) compounds [5]. Ghana developed the CHPS approach as part of its primary healthcare strategy to address gaps in access to quality health services at the community level. Basic preventive and curative services for minor ailments are addressed at the community and household level with the introduction of the CHPS system [6].

The main funding mechanism for the health sector is through the National Health Insurance scheme. Launched in 2004, the insurance scheme covers about 95.0% of health conditions and includes inpatient and outpatient services for general and specialist care, surgical operations, hospital admission, prescription drugs, blood products, dental care, maternity care and emergency treatment [7].

Ghana has conducted three landmark assessments of its primary health care system (Vital signs profile assessment, CHPS verification survey (2018) and the 2020 EmONC survey). The data from these surveys provide valuable information on the status of health facilities in the country. However, these assessments were not comprehensive enough (in terms of coverage and content) to inform the rollout of ongoing innovations in healthcare delivery such as the Networks of Practice.

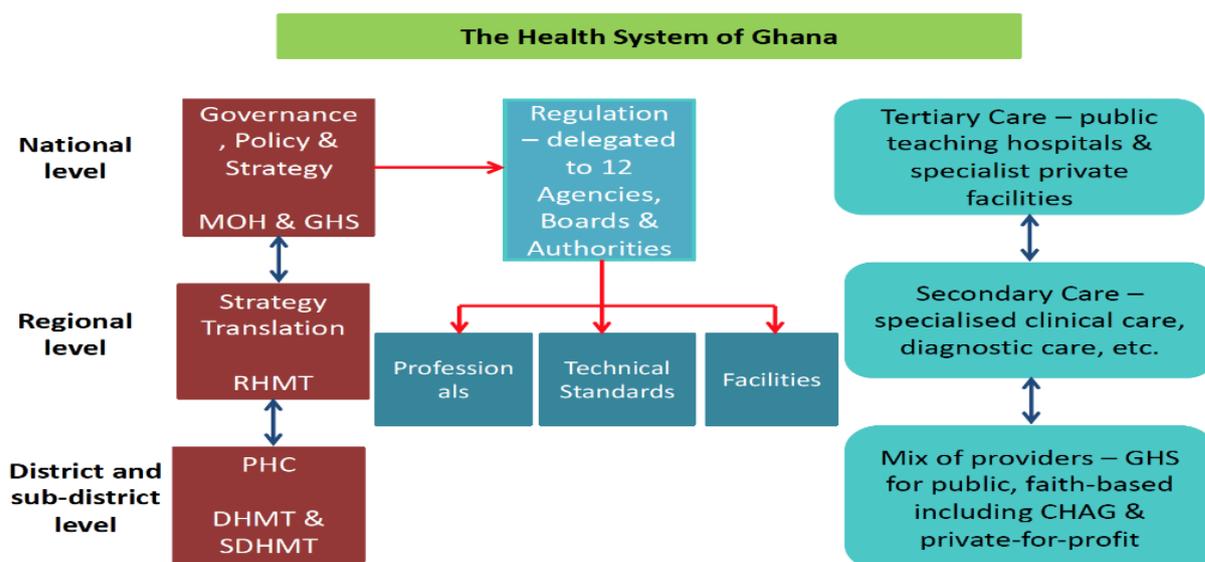
A comprehensive service availability and readiness survey of all levels of health delivery in the country will help determine the status of health facilities and identify gaps in service availability and readiness in the country. The WHO Harmonized Health Facility Assessment provides an approach for conducting a comprehensive assessment of health service availability, readiness and quality.

To further strengthen its efforts at achieving UHC, Ghana implemented the WHO Harmonized Health Facility Assessment in 2022. This was to help identify the gaps in availability and readiness of facilities to provide services that can then be remedied to facilitate the achievement of UHC by

2030. Ghana’s pluralistic health sector is structured in a decentralized manner and has been designed through a pro-poor lens (Fig 1.1). The institutional structure of the health sector is made up of the Ministry of Health (MOH) as policy maker and regulator, the Ghana Health Service, the Teaching Hospitals and the Faith-based and Private-for-Profit practitioners as care providers and the National Health Insurance Authority (NHIA) as the purchaser of health care services for its insured members. The PHC services are delivered through linkages at the district (hospitals) and sub-district level (health centres, maternity homes, clinics and CHPS compounds).

Healthcare services in Ghana are provided by both public and private providers. The main public providers are the Ghana Health Service (GHS), the Teaching Hospitals and the Psychiatric Hospitals. Two non-state faith-based providers, the Christian Health Association of Ghana (CHAG) and Ahmadiyya Muslim Mission Health Services, work relatively closely with the public sector. The Teaching and Psychiatric Hospitals provide tertiary and specialist services. GHS, CHAG and Ahmadiyya Mission Hospitals provide both primary and secondary-level services. The private providers are active at all three levels of care and generally focus mostly on clinical care services.

Fig 1.1: Structure of Ghana’s Health System



Health Information System

To monitor progress towards achieving the health-related Sustainable Development Goals (SDGs) and Universal Health Coverage (UHC) targets, the country’s health information systems draw upon multiple data sources such as population-based surveys, civil registration, and vital statistics, as well as other administrative and non-health sector data sources. The WHO SCORE assessment tool⁶ provides the framework around which the Health Information System for Ghana can be looked at.

⁶ Score to reach your Health Goals: A technical package to strengthen country health data for Universal Health Coverage and Health related SDGs. World Health Organisation September 2018.

Health Service Data

Ghana's Health Management Information System is organised into five levels: facility, sub-district, district, region and national. To improve access to healthcare, the health sector is opened to a wider range of providers (both public and private) at all levels. Health interventions are packaged and delivered in CHPS compounds, Health Centres, Private Health facilities, District hospitals, Regional hospitals, Teaching Hospitals as well as other specialised health facilities.

The Health Sector requirement is that all health facilities both private and public report on all services provided according to the agreed respective schedule. Facilities are to report through the Districts/Municipals/Sub-Metropolitan/Metropolitan Health Directorates in which they are located as specified in the Ghana Health Service Act, 525.

The District Health Information Management System (DHIMS) serves as the destination for all routine health service data. All health facilities using Electronic Medical Record Systems (EMRs) are to follow approved guidelines in procuring these systems to permit interoperability with the DHIMS. Facilities without access to computers shall submit their verified data to the sub-district for verification and data entry. Districts are to collate quarterly activity reports of sub-districts/facilities and submit them to regions. Regions are to collate quarterly activity reports from districts and submit them to the National level. Regional Hospitals and some specialized health facilities perform day-to-day duties without the direct oversight of the District Health Directorates in which they are located. Reports from these facilities are sometimes transmitted manually or electronically through the Region to the National level.

The Human Resource Information Management System (HRIMS)

This system is managed by the Human Resource Division of the Ghana Health Service. It is used to input individual employee's data to facilitate promotions, transfers, and other human resource functions. An e-portal for recruitment has been deployed by the Ministry of Health (MOH) to ensure transparency and equity in the distribution of new staff. Also available is the workforce information management system for Ghana. The Public Service Commission also maintains an electronic platform for health workers that facilitates human resource management in the public sector.

The Logistics Management Information System (LMIS)

The logistic management information system is called the Ghana Integrated Logistics Management Information System (GhILMIS). The GhILMIS is designed to collect, record, and report critical supply chain data; provide decision-makers throughout the supply chain with accurate, timely, and appropriate data and ensure that the right items are delivered in the right quantities, at the right time, in the right condition, for the right cost, and to the right recipient.

National Health Insurance Information Systems

The National Health Insurance Authority was established by an act of Parliament, the National Health Insurance Act 2003 (Act 650, now amended Act 852 of 2012) to regulate health insurance

schemes both public and private in the country. The NHIA also manages the National Health Insurance Scheme (NHIS). By these mandates, the Authority generates both population and health service delivery data. It maintains the membership data of all persons enrolled in the scheme and those accessing the minimum benefits package it offers to the insured, i.e., the medical claims data. These data provide useful indicators for tracking the performance of the scheme and supporting decision-making in the health sector.

Regulators Information System

Several regulatory agencies in the country also produce and maintain population-based data in the health sector. Regulatory institutions in the health sector include the Health Facility Regulatory Agency (HeFRA), the Food and Drugs Authority (FDA) etc. The HeFRA is governed by the Health Institutions and Facilities Act, 2011 (Act 829) to license facilities for the provision of public and private health care services. Therefore, it generates data on both public and private health facilities in the country through the execution of their mandates, for example, registration, inspection, licensing, and monitoring of healthcare facilities. The FDA also produces data on human and veterinary drugs, food, biological and pharmaceutical products, medical devices and household chemical substances, and tobacco through registration and licensing of these products. It takes its mandate from the Public Health Act, 2012 (Act 851).

Civil Registration and Vital Statistics

The Births and Deaths Registry was established by Act 301 of 1965, within the Ministry of Local Government and Rural Development to handle and develop the births and death registration system in Ghana. Its core business is to provide accurate and reliable information on all births and deaths occurring within Ghana for the socio-economic development of the country through their registration and certification.

The Health Sector through the health facilities in the districts collaborate with the Births and Deaths Registry to ensure that all births and deaths occurring in health facilities are registered. Data on registration of births that occur within health facilities are shared with the district offices of Births and Deaths Registry where these births occurred. Registration of deaths that occur within a health facility is initiated by doctors providing the relatives of the deceased with a medical certificate of cause of death as mandated by law. This is presented to the Births and Deaths Registry for the registration of the dead. There is a lot of work currently ongoing to institutionalize and strengthen the relationship between the health sector and the Births and Deaths Registry to facilitate the registration of births and deaths as well as registration for purpose of national identification.

Health Sector Data Governance Structure

The MOH is responsible for coordinating and reporting on health data in Ghana. It depends on its agencies to facilitate the collection and collation of these data. Currently, the organizational unit responsible for managing health care data in the Health Sector is the Centre for Health Information

Management (CHIM) which is currently a unit under the Information Monitoring and Evaluation (IME) Department of the Policy, Planning, Monitoring and Evaluation Division (PPMED) of the Ghana Health Service (GHS). The head of CHIM reports to the Deputy Director of the IME department who in turn reports to the Director of PPMED. The Director PPMED reports to the Director-General of the Ghana Health Service.

The Centre for Health Information Management (CHIM) is responsible for managing the DHIMS2 including access control management to the system. Direct access to the DHIMS2 data repository is limited to staff of the MOH and its agencies. In case a partner organisation requires data, a request is made to the Director-General of the GHS who then authorizes the Director of PPMED to facilitate the provision of the data. The data is provided by CHIM staff in an electronic format. On the system governance side, there are quarterly, half-yearly and annual reviews which use access to the DHIMS2. On a yearly basis, national requirements and data needs are revised and changes are made accordingly in the national DHIMS2 configuration.

Health infrastructure

According to the DHIMS2 as of August 2022, there were a total of 9,505 health facilities in Ghana, including 7,745 public health facilities, 1,360 private self-financing and 295 CHAG facilities (Table 1). Majority of the facilities are CHPS, health centres, clinics and maternity homes (Table 2).

Table 1 Ghana - health facility distribution by ownership as of 31st August 2022

Region	Other Faith-Based	Quasi-Government	Government	Private	CHAG	Mines
Central	1	9	554	93	17	
Oti			238	11	6	
Upper West	2	1	447	13	16	
Western	1	13	483	103	15	7
Ahafo	1		170	11	6	1
Ashanti	5	7	1320	299	77	1
Volta		1	478	47	19	
Upper East		1	528	39	20	
Western North	1	1	281	46	18	3
North East			117	7	8	
Eastern		3	1048	103	23	
Bono East	1		329	30	8	
Savannah			175	8	11	
Greater Accra	1	36	793	457	12	
Northern		5	417	42	14	
Bono		6	367	51	25	
Ghana	13	83	7745	1360	295	12

Rationale

To monitor progress towards achieving the health-related Sustainable Development Goals (SDGs) and Universal Health Coverage (UHC) targets, Ghana's health information systems draw upon multiple data sources such as population-based surveys, civil registration and vital statistics. Other sources of data include census, public health surveillance, health facility and community systems data which may be derived from administrative and non-health sector data sources.

Routine administrative health service data includes the information on the inputs needed to offer the service and the data on the services that are being offered. The District Health Information Management System (DHIMS) serves as the major source of routine health service data in Ghana. Other sources of health data include the Human Resource Information Management System (HRIMS), the Ghana Integrated Logistics Management Information System (GhILMIS), the National Health Insurance Information Systems, and the Regulators Information System.

Specialized population surveys such as Ghana Demographic and Health Survey, Multiple Indicator Cluster Survey, Ghana Maternal Health Survey have also been relied on for data on health indicators. Additionally, the Service Provision Assessment, CHPS Verification Survey and EmONC have all shed light on various aspects of service availability and readiness in the country.

However, the focus on specific service delivery components and the lack of harmony in definitions and measurement of indicators often undermine the comparability of existing health facility assessment initiatives. There is an urgent need for comprehensive and comparable approaches to assessing health service availability and readiness. The WHO Harmonized Health Facility Assessment represents an approach at generating comparable service availability and readiness data across time and space.

Part 1: Background to the HHFA in Ghana

Over the years Ghana has engaged key health partners on the need to support the health sector to conduct a comprehensive health facility assessment to further strengthen its efforts towards achieving UHC. A comprehensive service availability and readiness survey of all levels of health delivery in the country is required to help determine the status of health facilities and identify gaps in service availability and readiness in the country. The WHO Harmonized Health Facility Assessment (HHFA) provides an approach for conducting a comprehensive assessment of health service availability, readiness and quality of the service provided. The HHFA is a comprehensive, standardised health facility survey that provides reliable, objective information on the availability of health services and the capacities of facilities to deliver the services at the required standards of quality. The HHFA builds upon the Service Availability and Readiness Assessment (SARA) and incorporates components of other key global health facility surveys and indicators. The HHFA also aligns with the country's policy direction towards implementing the Network of Practice (NoP) which is a strategy in Ghana's Health Sector Medium Term Development Plan (HSMTDP 2022 - 2025) policy document towards the achievement of the UHC.

Ghana's need for a comprehensive health facility assessment was reiterated by the Minister of Health during a side meeting at the 75th World Health Assembly held in Geneva, Switzerland in May 2022. On this occasion, the Regional Director of the WHO Regional Office for Africa, Dr. Matshidiso Moeti affirmed her readiness to support Ghana to conduct the HHFA, and this became one of Ghana's core deliverables.

Following this, the Ministry of Health and Ghana Health Service started a series of stakeholder engagements with the WHO and other Partners including USAID, the World Bank and the Foreign Commonwealth Development Office (FCDO). This culminated in the identification and establishment of the steering committee and a technical coordinating team comprising major health sector agencies of the MoH including GHS, CHAG and the Private Health Facilities Association as well as other development partners and stakeholders including WHO.

The overall goal of conducting the Ghana HHFA was to generate comprehensive facility-based information on the availability, readiness, and quality of health services in Ghana. The specific objectives of the G-HHFA were to:

1. Assess the status of health facilities in Ghana in terms of human resources, infrastructure, and capacity to provide health services.
2. Assess the type, quantity and quality of health services provided to the population.
3. Provide data for monitoring and measuring changes in health service readiness and availability.

4. Provide external validation for self-reported information on service delivery, quality of care and system functioning through the routine system.
5. Generate evidence to feed into Ghana's annual planning to guide resource allocation.

The HHFA data will support health sector reviews, planning and policymaking, and enable evidence-based decision-making for strengthening Ghana's health service delivery systems.

Scope and design of the G-HHFA

The Ghana HHFA (G-HHFA) was a cross-sectional survey covering all levels of healthcare facilities (except the tertiary facilities) irrespective of ownership in the sixteen administrative regions of Ghana. The sampling frame for the study was drawn from the list of health facilities registered in the District Health Information Management System (DHIMS2), which serves as a national database for health facilities in Ghana.

A sample of facilities from the national database was drawn for the survey using a combination of purposive and stratified sampling methods. All regional and district hospitals and polyclinics in Ghana were included purposively. The remaining facility types (other hospitals, health centres, maternity homes, clinics and CHPS) were stratified and a random sample was taken from each region to ensure fair regional representation. Only CHPS with compounds were included in the sample. A total of 1,370 facilities were sampled for the survey. In addition to this number, 117 facilities identified as hubs in the NoP were added to attain an overall total sample of 1,487 facilities.

Sample Size and Sampling Procedure

The sampling of health facilities for the G-HHFA was informed by GHS's need for information to inform ongoing innovations in healthcare delivery while ensuring that all levels of healthcare delivery are included in the sample. To achieve this, both purposive and random sampling procedures were employed. The sampling frame for the study was drawn from the list of health facilities registered in the District Health Information Management System (DHIMS2), which serves as a national database for health facilities in Ghana.

All designated regional hospitals (16), designated district hospitals (216) and polyclinics (65) were purposively included in the sample due to their limited numbers and the specific roles they play. The remaining facilities (other hospitals, health centres, clinics, maternity homes and CHPS with compounds) were stratified and a proportionate random sample was taken from each region. For these categories of facilities, the sample size was determined based on the availability of essential medicines (as prescribed by WHO) in each facility type.

Sample Size Determination

Among the published components of service availability and readiness assessment (SARA) of health facilities in Ghana [1], the availability of essential medicines yielded the highest sample of facilities across facility types. The availability of essential medicines in Health Centers (HC), Clinics/Maternity homes (CM) and CHPS was therefore used for sampling nationally representative facilities across facility type.

Based on the proportion of facilities reporting the availability of essential medicines, a nationally representative sample of facilities in each facility category was determined using the formula below [2],

$$n = \left[\frac{(z^2 * p * q) + ME^2}{\left(ME^2 + \frac{(z^2 * p * q)}{N} \right)} \right] * d$$

Where:

N = Sample size

z = Confidence level at 95% (1.96)

ME = Margin of error (5%)

p = proportion of facilities reporting the availability of essential medicines

q = 1-p

N = population size of health facilities

d = design effect

The estimated sample size for health centres, clinics/maternity homes and CHPS by type of ownership using the above formula are presented in Table 1.

Table 1: Sample size calculations for Health Centres, Polyclinics, Clinics/Maternity homes and CHPS								
Health Centres								
Facility Ownership	Total	z	p	q	ME	n1	n2	n
Government	1022	1.96	0.53	0.47	0.05	0.959443	0.003436	279
Private	19	1.96	0.53	0.47	0.05	0.959443	0.052865	18
Clinics/Maternity Homes								
Facility Ownership	Total	z	p	q	ME	n1	n2	n
Government	8	1.96	0.53	0.47	0.05	0.959443	0.122118	8
Private	1517	1.96	0.53	0.47	0.05	0.959443	0.003131	306
CHPS								
Facility Ownership	Total	z	p	q	ME	n1	n2	n
Government	3228	1.96	0.358	0.642	0.05	0.885438	0.002774	319

Health Centres

To take account of Health C (HC) ownership type, the availability of essential medicines was applied to both private and government-owned HCs. The reported proportion (p) of HCs with the availability of essential medicines was reported to be 52.6% [1]. Considering a margin of error of 5.0% and a design effect of 1 and using a confidence level of 95.0% (z), the required sample size of HCs was calculated to be 279 and 18 respectively for government and privately owned HCs. These nationally representative samples were then distributed proportionately to all 16 regions according to their respective total number of HCs. The HCs within each region were subsequently randomly selected.

Clinics/Maternity Homes

A total of 8 government and 1,517 privately owned Clinics/Maternity homes (CMs) were available to be sampled nationally. The same proportion (p), as reported for HCs was applied to CMs reporting the availability of essential medicines. Using the formula above, the sample estimates obtained were 8 and 306 respectively for government and privately owned CMs.

CHPS

The reported availability of essential medicines among CHPS with compounds was 35.8% [1]. In all, there were 3,227 CHPS compounds available to be sampled. Based, on the reported availability of essential medicines, 319 CHPS compounds were sampled.

Networks of Practice Facilities

For the operationalization of the networks of practice, the GHS has identified facilities (mainly health centres) to serve as hubs for the NoPs. These health centres are to be resourced (with staff, equipment and infrastructure) to serve as model health centres. The G-HHFA provides an opportunity to collect baseline information on the service availability and readiness of these facilities. Where these facilities have not been captured in the sampled facilities, they will be included in the sample. Overall, 1,487 health facilities were sampled for the G-HHFA.

Data Collection and Analysis

Instrument for Data Collection

The HHFA covers all key facility services and facility-level management systems. Its content is organised into four modules: service availability; service readiness; quality of care; and management and finance. Each HHFA module includes a set of stand-alone questionnaires that may be designated Core, Core + Additional and/or Supplementary. The combined questionnaire contains questions from multiple modules, integrated and organised to facilitate data collection. G-HHFA used the WHO harmonized health facility assessment questionnaire to collect data on various dimensions of health service delivery in Ghana. The combined questionnaire integrates and organizes the questions from the three facility audit modules. This approach simplifies the data collection process within the facility, eliminating the need for multiple visits to the same personnel to ask questions from different sections of the questionnaire.

Based on the survey objectives, Ghana opted to implement the following HHFA modules: service availability, service readiness and management & finance. The selected modules all use the facility audit methodology for data collection. For each of these modules, the survey focused on the core indicators and questions.

Ghana did not implement the quality-of-care module as this module uses a different data collection methodology (i.e. record review). It is generally not advisable to conduct the quality-of-care module with the other 3 modules as it may compromise the quality of the data.

The HHFA combined questionnaire was reviewed and adapted to ensure relevance and appropriateness for the Ghanaian context and to reflect the needs of policymakers in the country. Generally, the adaptation aimed at the following:

- Ensure Ghana-specific response options
- Ensure wording/phrasing of questions is specific to Ghana
- Ensure questions are relevant to Ghana; exclude questions that are not relevant to Ghana
- Include Ghana-specific questions to meet country-specific interests.

The questionnaires were programmed into a Census and Survey Processing System (CSPro) application that is used to collect the data on tablets or mobile phones. CSPro is an open-source software package for the entry, editing, tabulation, and dissemination of census and survey data developed by the US Census Bureau. In line with the WHO recommendation, a standard CSPro application for HHFA, together with its data analysis tool was adopted. Global Positioning System (GPS) was built into the CSPro application for HHFA to record the coordinates of each health facility surveyed.

HHFA Questionnaire Structure

The HHFA questionnaire is organized into sections and subsections that contain questions related to a specific service aspect or programme. The HHFA paper questionnaires were used to review questions during the country questionnaire adaptation process as part of HHFA planning. The CSPro tool was then adapted based on the final Ghana-adapted questionnaire.

Recruitment and Training of the survey team

A team was constituted for the day-to-day management and implementation of the HHFA survey. The team consisted of a survey manager and assistant, a statistician, data managers, CSPro experts, national supervisors, regional supervisors, team leads, data collectors, and training facilitators.

A team of health workers (consisting of ICT/Data managers, health information officers, statisticians, research focal persons, clinicians, nurses and midwives, pharmacists and public health officers) were recruited and trained as supervisors and data collectors to undertake the HHFA data collection exercise.

The data collectors' training was led by a team of three (3) facilitators from WHO and seven (7) from the Ghana Health Service with a background in clinical care, public health, health planning, and health information management as well as experience in field data collection.

Training of Field Workers

All members of the survey implementation team were trained and provided the relevant skills pertaining to their role in the survey. An orientation workshop on the survey was organized for the survey lead, CSPro expert, data managers, and supervisors to deepen their understanding of the methods and procedures of the survey. As part of the orientation, the data collection tools and other technical documentation on the survey were reviewed and discussed in preparation for the data collector's training. A five-day residential training and adaptation of the tool into CSPro for data managers was organized.

Separate training sessions were organised for Trainers of Trainees (ToT) (3 days), Supervisors and data collectors (7 days) on the three modules (service availability, service readiness, and management and finance) of the HHFA questionnaire.

HHFA consultants from WHO facilitated the ToT workshop for participants drawn from the Technical Implementation team. The objectives of the training included:

- Train data managers on how to configure and deploy the HHFA application
- Describe the HHFA objectives, content, methods, and processes;
- Explain the content and structure of the questionnaire;
- Recommend interviewing practices;
- Explain the basics and the process of data collection in the digital application;
- Explain how to ensure consistency in data collection;
- Explain the data collection process and responsibilities;
- Use the supporting tools and documents for data collection training;
- Describe how to organise the data collection training and facilitate training sessions in HHFA data collection.

A seven-day residential training was organized for data collectors. The objectives of the training were to:

1. Achieve a common understanding of the HHFA by all participants.
2. Train data collectors and team leaders in administering the HHFA questionnaire (including electronic versions) and in their roles and responsibilities during data collection.
3. Facilitate supervisors and HHFA technical team's planning for field implementation.
4. Develop a detailed timeframe and plan for the field implementation.

A participatory approach was adopted for the training with both facilitators and trainees leading discussions and presentations on parts of the HHFA questionnaires. Hands-on sessions were also embedded in the training on each section of the questionnaire. Each participant was provided with a

tablet during the training, and these were used during the practice on the CSPro application and data collection exercises.

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

As part of the training, a field test of the survey tool was conducted in non-sampled facilities in the Eastern region. The pre-test was used to assess the data trainees' knowledge of the questionnaire, interview skills and proficiency in the use of the tablets and CSPro application. In addition, the pre-test allowed the team to address any inconsistencies and ambiguities in the questionnaires arising from the country-specific additions.

The observations and recommendations from the pre-test were used to fine-tune the questionnaires, the interview skills of data collectors, as well as the planning process for the field data collection.

Data collectors

A team of data collectors (team lead, interviewers and supervisor) were assigned to each region to survey the sampled facilities. Each team was given a list of the sampled health facilities to be interviewed in their respective regions. Data collectors obtained contact details and directions to the health facilities from the regional and district health information officers and facility staff where available. Others used their prior knowledge of the facilities' locations and Google Maps to access locations of health facilities.

The teams visited each sampled facility to collect data using tablets. During the data collection process, the task of reviewing the data is shared among several team members, including data collectors, team leaders, supervisors, and the data manager. This collaborative effort ensures the accuracy and quality of the collected data.

- The team leader assigns sections for data collection to each data collector for every facility and also syncs completed questionnaires submitted by data collectors. They will double as data collectors when the need arises.
- The data collectors daily collect data at the facilities, receive sections of the questionnaire assigned by the team leader, send data to the team leader or sync data directly to the server, and view reports to monitor the progress of work towards completion of assigned sections.
- The Supervisor will daily generate facility reports to access survey completion for all data, collect data for supervisor validation, reset a team leader or data collection device registration, or individuals they are supervising.

At the end of each day, team members met virtually and/or in person to discuss the progress of work, rectify problems and submit completed questionnaires to the team leaders.

Data Management and Quality Assurance Procedures

Data quality assurance was done daily. At the end of each day, the data manager downloaded the data, assessed key fields, and provided teams with feedback. Daily data tracking was done by the data manager using the tracking sheet to track the progress of all teams towards completion across districts and regions. The team leaders and supervisors also monitored the data daily for data completeness and correctness. Frequent mobile phone communication (phone and WhatsApp) was used to ensure rapid problem-solving and information sharing.

Since the CSPro programme automates skip patterns, range checks, consistency checks, and auto-fills, there were fewer worries about consistency checks, etc. However, the supervisors conducted validation visits to a sample of facilities to observe data collection activities or confirm that the right facility had been surveyed. Daily debriefing sessions were held (virtual or physical) to discuss challenges with the administration of the questionnaire using the tablets, uploading of completed forms, or any matter related to the data collection.

Data Processing and Storage

After data collection was completed, all the data was transferred to a CSPro Web server. This server is a virtual web-based platform powered by MySQL database software, known for its robust data security measures. The CSPro program facilitates the synchronization of data collected from data collector tablets to the server. Additionally, it enables the data collected from data collector tablets to be synchronized with team leader tablets. This process created a comprehensive record on the team leader's tablet, which was then synchronized to the server.

Data Analysis

The G-HHFA data was analysed using the HHFA data analysis platform. This platform is a software app specially built for the HHFA. The platform was adapted to accommodate Ghana-specific indicators and tables before uploading the completed survey data set. When the data collection was completed, the data was exported from CSPro and uploaded to the data analysis platform. The platform automatically calculates the indicators and produces tables, graphs and a report outline. The indicators are grouped into 5 main sections called Dimensions that broadly correspond to the modules (general service availability, general service readiness, service-specific availability and readiness, management and finance support systems, and clinical quality of care).

PART 2: Findings of the G-HHFA

HIV TB Malaria and NTDs

General Service availability for malaria and HIV is high across facilities sampled (97% and 86% respectively), but that of tuberculosis and NTDs is lagging (53% and 25% respectively). There was very little variation in general service availability of malaria and HIV between the regions (low of 90% in Eastern to 100% in most regions for malaria and low of 72% in Bono region to a highest of 94% of facilities in Oti region for HIV). The same unremarkable variation can be seen between government and private hospitals surveyed (100% vs. 99% for malaria, and 98.5% vs. 88% for HIV).

Regional variation for TB and the NTDs were however remarkable, ranging from a low of 38% of facilities in the Greater Accra region to a high of 68% in the Central region for TB, and a low of 11% of facilities in the Oti region to a high of 45% in the Bono region for NTDs. TB services were also more likely to be available in government hospitals (97.5%) than private hospitals (42%), just as services for NTDs were more available in government hospitals (72.5%) than in private hospitals (30%). General service availability for all four conditions (HIV, TB, malaria, NTDs) was high amongst polyclinics and health centres, but low in CHPS compounds and clinics/maternity homes.

Table 1.2.2.3 – Communicable Disease

	Malaria diagnosis and treatment	Any services for human immunodeficiency virus (HIV) diagnosis and treatment	HIV testing	HIV care and support	Antiretroviral therapy (ART) for long term HIV treatment	Any paediatric HIV services	Any tuberculosis services	TB diagnosis and treatment services	TB patient follow-up services	Any diagnostic or treatment services for sexually transmitted infections (STI)	Any services for neglected tropical diseases (NTD)	Dengue services	n
National	97%	86%	85%	25%	27%	55%	53%	19%	44%	75%	25%	5%	1,421
Region													
Ahafo	100%	81%	81%	20%	26%	38%	55%	28%	48%	87%	32%	1%	26
Ashanti	99%	89%	89%	18%	19%	73%	42%	22%	36%	87%	23%	2%	173
Bono	100%	72%	72%	30%	29%	54%	40%	16%	35%	84%	45%	15%	72
Bono East	94%	80%	80%	29%	27%	48%	57%	21%	50%	61%	41%	8%	58
Central	96%	86%	85%	19%	31%	49%	68%	24%	65%	77%	30%	4%	130
Eastern	90%	89%	89%	27%	30%	58%	63%	16%	58%	60%	23%	3%	150
Greater Accra	100%	86%	86%	28%	33%	47%	38%	24%	30%	90%	25%	11%	206
North East	98%	92%	92%	28%	32%	43%	62%	27%	45%	84%	16%	2%	30
Northern	98%	87%	87%	19%	12%	29%	58%	13%	38%	75%	16%	4%	87
Oti	100%	94%	94%	23%	25%	61%	44%	16%	31%	59%	11%	6%	45
Savannah	100%	90%	90%	8%	15%	40%	64%	9%	45%	82%	43%	2%	40
Upper East	98%	85%	82%	47%	53%	69%	56%	31%	49%	75%	26%	10%	75
Upper West	100%	81%	81%	11%	5%	38%	53%	16%	50%	58%	19%	1%	78
Volta	95%	89%	89%	31%	21%	68%	67%	17%	62%	70%	13%	1%	96
Western	98%	79%	79%	26%	38%	66%	43%	16%	34%	67%	20%	4%	102
Western North	96%	87%	87%	19%	25%	59%	62%	5%	34%	86%	37%	3%	53
Managing authority													
Government/public	97%	88%	88%	25%	30%	56%	63%	21%	55%	70%	25%	4%	971
NGO/private	96%	78%	78%	16%	13%	48%	21%	8%	12%	86%	21%	5%	319

Mission/faith-based	98%	89%	89%	49%	51%	74%	61%	41%	57%	95%	43%	13%	108
Quasi government/university	92%	88%	88%	53%	43%	63%	60%	38%	51%	92%	56%	31%	23
Facility type													
Regional hospital	100%	100%	100%	100%	100%	100%	100%	100%	94%	100%	81%	43%	16
District hospital	100%	97%	97%	91%	94%	96%	95%	92%	93%	100%	64%	21%	149
Other general hospital	99%	88%	87%	37%	33%	66%	42%	31%	32%	95%	30%	11%	132
Poly clinic	100%	99%	99%	82%	80%	89%	82%	74%	77%	96%	61%	16%	69
Health centre	100%	93%	93%	41%	46%	74%	75%	35%	67%	94%	44%	8%	452
Clinic/maternity home	93%	74%	74%	14%	12%	40%	21%	4%	13%	81%	23%	5%	262
CHPS	97%	85%	85%	11%	16%	45%	54%	8%	45%	59%	12%	1%	341
Expected facilities													
NCD diagnosis / surgery	99%	91%	91%	56%	54%	76%	60%	52%	53%	97%	42%	15%	366
Non-NCD diagnosis / non-surgery	97%	84%	84%	18%	22%	51%	51%	13%	43%	71%	22%	3%	1,055
Expected facilities													
CEmONC	99%	91%	91%	56%	54%	76%	60%	52%	53%	97%	42%	15%	366
Non-CEmONC	97%	84%	84%	18%	22%	51%	51%	13%	43%	71%	22%	3%	1,055
Expected facilities													
Non-BEmONC lower-level	96%	85%	85%	44%	44%	66%	49%	40%	42%	91%	36%	11%	427
BEmONC lower-level	97%	86%	85%	19%	23%	52%	54%	14%	45%	71%	22%	4%	994
Expected facilities													
EmONC	97%	86%	85%	25%	27%	55%	53%	19%	44%	75%	25%	5%	1,421

Table 1.2.2.3 – Communicable Diseases continued

	Guinea worm diseases services	Lymphatic filariasis services	Lymphoedema (from NTDs) services	Onchocerciasis services	Schistosomiasis services	Soil transmitted helminths services	Trachoma services	Visceral leishmaniasis services	n
National	10%	14%	12%	13%	19%	22%	10%	6%	1,421
Region									
Ahafo	1%	19%	25%	19%	23%	32%	20%	1%	26
Ashanti	7%	9%	5%	10%	17%	20%	3%	3%	173
Bono	18%	29%	27%	20%	34%	43%	17%	10%	72
Bono East	17%	21%	18%	31%	33%	34%	16%	13%	58
Central	11%	14%	9%	8%	18%	25%	6%	4%	130
Eastern	8%	13%	11%	10%	16%	21%	9%	4%	150
Greater Accra	15%	18%	18%	17%	23%	23%	17%	10%	206
North East	4%	7%	4%	5%	7%	15%	7%	2%	30
Northern	8%	8%	6%	8%	9%	14%	8%	2%	87
Oti	4%	8%	8%	9%	10%	10%	7%	4%	45
Savannah	10%	24%	5%	23%	32%	34%	10%	2%	40
Upper East	13%	15%	13%	13%	18%	18%	15%	7%	75
Upper West	7%	15%	12%	13%	18%	18%	12%	4%	78
Volta	2%	5%	6%	11%	13%	13%	7%	7%	96
Western	10%	10%	9%	10%	17%	17%	9%	4%	102
Western North	8%	13%	18%	21%	17%	27%	8%	4%	53

Managing authority									
Government/public	9%	13%	10%	13%	18%	21%	9%	4%	971
NGO/private	9%	11%	11%	10%	15%	18%	10%	6%	319
Mission/faith-based	17%	25%	25%	20%	32%	40%	19%	14%	108
Quasi government/university	32%	37%	41%	38%	52%	51%	32%	28%	23
Facility type									
Regional hospital	56%	75%	69%	75%	75%	75%	75%	43%	16
District hospital	31%	52%	51%	43%	60%	63%	42%	25%	149
Other general hospital	15%	21%	18%	19%	27%	29%	19%	12%	132
Poly clinic	40%	46%	30%	40%	56%	60%	25%	29%	69
Health centre	17%	23%	19%	23%	36%	39%	15%	7%	452
Clinic/maternity home	9%	10%	12%	10%	14%	20%	9%	5%	262
CHPS	3%	5%	3%	5%	6%	9%	3%	1%	341
Expected facilities									
NCD diagnosis / surgery	22%	32%	29%	28%	39%	41%	26%	17%	366
Non-NCD diagnosis / non-surgery	7%	10%	8%	10%	15%	18%	7%	3%	1,055
Expected facilities									
CEmONC	22%	32%	29%	28%	39%	41%	26%	17%	366
Non-CEmONC	7%	10%	8%	10%	15%	18%	7%	3%	1,055
Expected facilities									
Non-BEmONC lower-level	17%	25%	22%	22%	31%	35%	21%	13%	427
BEmONC lower-level	8%	11%	9%	11%	15%	18%	7%	3%	994
Expected facilities									
EmONC	10%	14%	12%	13%	19%	22%	10%	6%	1,421

Malaria

Malaria service availability (refer to table 3.2.1.1)

Overall malaria testing, diagnosis and treatment services were high (averaging 97%). Health facilities providing malaria services range from 90% (Eastern Region) to 100% (Ahafo, Bono, Greater Accra, Oti, Savannah and Upper West Regions). All the facilities surveyed performed above 90% service availability. Many interventions: including case management training, malaria diagnostic refresher trainings (MDRTs), onsite training and supportive supervision, supply of logistics (consumables and non-consumables), and performance feedback from GHS and implementing partners are the most likely attributable factors. In the context of the survey, it's important to note that Mission and Faith-based facilities achieved the highest rate (98%) in terms of providing malaria diagnosis and treatment services.

Of the facilities surveyed, 97% perform malaria diagnostic testing using either RDTs (96%), and/or microscopy (39%). Malaria diagnosis by clinical symptoms and signs only still occurred in an average of 34% of facilities surveyed, and this cut across all levels of facilities (from regional hospitals to CHPS compounds). 63% of facilities surveyed had formal systems for linking services with Community Health Workers (CHWs) for malaria services.

Malaria service readiness (refer to table 3.2.1.2)

Overall, the availability of guidelines for the diagnosis and treatment of malaria was 68%. The availability of these guidelines ranges from 29% in Ahafo to 93% in the Upper West region.

Guidelines for intermittent preventive treatment of malaria during pregnancy (IPTp) was very low;33%. This may be attributable to the inability of the National Malaria Elimination Programme (NMEP) to print guidelines and reporting forms in 2022. Clinic /maternity homes had the lowest (20%) possession of IPTp guidelines compared to (57%) of the Regional Hospitals. The First line antimalarials drug availability stood at a very good coverage of 88%. This could be because the NMEP, MoH/GHS with support from USAID Global Health Supply Chain Program-Procurement (GHSC-PSM) expedited the distribution of artemisinin-based combination treatments (ACTs) and Sulfadoxine pyrimethamine (SP) to regions and to health facilities following delays in clearing the products from the port. Monthly stock status report reviews were done for all warehouses housing the drugs. This allowed for close monitoring of stock levels and redistribution where necessary. This helped to stabilize stock levels in health facilities. Staff trained on malaria diagnostics and guidelines was 88% due to the periodic onsite training and supportive supervision (OTSS) exercise, which targets all hospitals and 50% of CHPS compounds, annually. staff trained on intermittent preventive treatment (IPT) guidelines was much lower at 59% nationwide. This is probably due to staff attrition over the past few years, notably amongst nurses.

Malaria Auxiliary Indicators

On average, the capacity to conduct microscopy across facilities offering malaria services was very low (12% average). Ranging from 2% in the North East Region to 24% in the Greater Accra region. There were inadequate certified microscopists in the health system (25% average), ranging from 5% in the North East and Savannah Region to 47% in the Greater Accra Region. To bridge this gap, the GHS in collaboration with the NMEP has adopted a strategy to continually facilitate Malaria Diagnostic Refresher Training (MDRT) sessions for many Medical Laboratory Professionals across the country. The main objective is to improve the capacity of laboratory professionals in malaria microscopy procedures for quality malaria diagnosis and effective case management.

Rapid diagnostic tests (RDTs) kits for malaria and 1st line antimalarials availability rating was very good because of the measures put in place by the NMEP to stabilize stock levels in health facilities including quarterly monitoring of stock levels in all the regional medical stores (RMS) and half-yearly quantification of malaria commodities. Generally, there was a low stockout of first-line antimalarials (11%) across facilities surveyed, ranging from 2% in the Savannah Region to 24% in the Northern Region.

Table 3.2.1.3 - Malaria auxiliary indicators

	Accredited/certified microscopist	Capacity to conduct malaria microscopy	Capacity to conduct RDT	Availability of RDT	Stock-out of malaria RDTs in last 3 months	Stock-out of 1st line antimalarial in last 3 months	1st line antimalarial	Artesunate injectio	Quini ne (oral)	Primaquine (oral)	n
National	25%	12%	71%	84%	13%	11%	88%	48%	7%	1%	1,393
Region											
Ahafo	27%	6%	51%	59%	8%	7%	97%	32%	15%	0%	26
Ashanti	36%	15%	66%	88%	10%	7%	92%	83%	6%	3%	171
Bono	20%	15%	82%	91%	23%	23%	94%	57%	12%	0%	72
Bono East	45%	23%	81%	95%	35%	22%	97%	43%	2%	0%	56
Central	20%	12%	74%	94%	6%	7%	96%	48%	6%	1%	125

Eastern	17%	10%	64%	83%	19%	8%	95%	29%	9%	0%	142
Greater Accra	47%	24%	87%	95%	8%	7%	88%	82%	12%	2%	205
North East	5%	2%	75%	87%	21%	23%	74%	58%	3%	0%	29
Northern	12%	4%	71%	84%	26%	24%	72%	35%	6%	5%	85
Oti	20%	7%	49%	55%	6%	8%	95%	39%	8%	0%	45
Savannah	5%	3%	77%	94%	24%	2%	74%	34%	4%	0%	40
Upper East	22%	8%	68%	82%	8%	21%	84%	32%	4%	0%	74
Upper West	9%	6%	69%	73%	9%	6%	75%	14%	2%	1%	78
Volta	23%	3%	69%	70%	8%	5%	90%	24%	3%	0%	94
Western	24%	13%	73%	85%	10%	9%	94%	44%	7%	0%	100
Western North	15%	9%	53%	68%	6%	12%	60%	28%	10%	0%	51
<hr/>											
Managing authority											
Government/public	14%	6%	69%	82%	13%	12%	87%	33%	5%	0%	956
NGO/private	46%	23%	76%	89%	12%	8%	87%	80%	13%	4%	310
Mission/faith-based	57%	32%	72%	92%	17%	5%	94%	85%	12%	0%	106
Quasi government/university	64%	49%	86%	95%	18%	0%	93%	77%	13%	5%	21
<hr/>											
Facility type											
Regional hospital	94%	57%	80%	87%	25%	12%	100%	100%	19%	0%	16
District hospital	75%	57%	89%	97%	18%	14%	99%	93%	19%	1%	149
Other general hospital	63%	32%	80%	91%	13%	7%	88%	91%	19%	6%	130
Poly clinic	80%	43%	90%	95%	11%	11%	94%	96%	20%	1%	69
Health centre	35%	11%	80%	93%	13%	11%	92%	57%	10%	1%	451
Clinic/maternity home	36%	18%	67%	86%	11%	8%	88%	69%	8%	2%	249
CHPS	1%	0%	65%	77%	13%	12%	85%	20%	2%	0%	329
<hr/>											
Expected facilities											
NCD diagnosis / surgery	68%	40%	83%	93%	14%	9%	92%	92%	19%	4%	364
Non-NCD diagnosis / non-surgery	17%	6%	69%	83%	12%	11%	87%	39%	5%	1%	1,029
<hr/>											
Expected facilities											
CEmONC	68%	40%	83%	93%	14%	9%	92%	92%	19%	4%	364
Non-CEmONC	17%	6%	69%	83%	12%	11%	87%	39%	5%	1%	1,029
<hr/>											
Expected facilities											
Non-BEmONC lower-level	57%	34%	78%	91%	13%	8%	90%	86%	18%	3%	421
BEmONC lower-level	17%	6%	69%	83%	13%	11%	87%	38%	4%	1%	972
<hr/>											
Expected facilities											
EmONC	25%	12%	71%	84%	13%	11%	88%	48%	7%	1%	1,393

Malaria auxiliary indicators - Infection prevention and control in the malaria test area (refer to table 3.2.1.4)

Generally, only 50% of facilities had hand hygiene items as against the national standard (100%). As expected, hand hygiene items should be available at all service delivery points per the National Infection Prevention and Control Policy and Guidelines, 2015. The average score for latex gloves was 77% (ranging from 39% in Volta to 99% in Bono Region). The average score for the environmental disinfectants was 76% nationwide (ranging from 34% in Volta to 99% in Bono Region). With respect to appropriate storage of sharps, the average national score was 76%, ranging from 33% in the Volta to 98% in the North East Region. Overall, appropriate storage of non-sharp infectious waste was very low (41%) in the health facilities surveyed ranging from 7% in Savannah to 82% in Greater Accra regions. A study on the Evaluation of Water, Sanitation and Hygiene Status

in COVID-19 Treatment Centres by Ashinyo et al. 2021, corroborated the findings of generally poor performance in health care waste score of 44.6%. Considering performance by facility type, CHPS recorded the lowest scores in Infection Prevention and Control (IPC) as compared to other types of health facilities. During the COVID-19 pandemic period, IPC training focused more on district and regional hospitals nationwide than CHPS; this may have accounted for the low performance of CHPS in this regard. Findings on IPC in health facilities are consistent with a similar study conducted in Saganarigu Municipality on the Assessment of Health Facility Readiness for Family Planning Services, by W. Akplu 2022.

Tuberculosis

Tuberculosis service availability

Tuberculosis (TB) diagnosis and treatment services are generally low (19%) across the surveyed facilities, with availability mainly in higher-level public facilities (regional, district, polyclinics), and relatively absent in private facilities.

Although 53% of facilities surveyed provided services for TB, service-specific availability was generally low, with services for drug-resistant TB, TB diagnosis for adults and adolescents, and TB diagnostic testing capacity (by symptoms and signs, sputum smear microscopy, culture, GeneXpert or chest X-ray) being as low as 23%, 29% and 12% respectively across facilities surveyed. Capacity for TB diagnosis for children under 5 years was especially low across all regions at 16 % (ranging from 7% in the Central region to 29% in the Upper East region). About 34% of facilities provide medicines to TB patients at follow-up visits, and 36% of facilities provide linkage to CHWs for any TB-related services but only 4% of facilities surveyed have a dedicated inpatient room for isolation. Of the district hospitals and lower facilities expected to manage the largest chunk of TB patients, just about 10% of the district hospitals, 6% of the polyclinics and 7% of the health centres have dedicated in-patient rooms for isolation of TB patients.

Table 3.2.2.1 – Tuberculosis Service Availability

	Any TB services	Any drug-resistant TB	Any TB diagnosis for any age group	Any TB diagnosis in adults	Any TB diagnosis in adolescents	Any TB diagnosis in children under 5 years	Any TB diagnosis in adults by clinical symptoms and signs only	Any TB diagnosis in adults by sputum smear microscopy	Any TB diagnosis in adults by rapid test (GeneXpert MTB/RIF)	Any TB diagnosis in adults by chest X-ray	n		
National	53%	23%	30%	30%	28%	16%	48%	14%	16%	6%	13%	11%	1,421
Region													
Ahafo	55%	21%	55%	55%	49%	26%	55%	27%	11%	1%	6%	7%	26
Ashanti	42%	17%	34%	34%	32%	15%	40%	17%	15%	6%	14%	12%	173
Bono	40%	23%	27%	27%	26%	21%	39%	11%	12%	1%	3%	10%	72
Bono East	57%	30%	26%	26%	24%	15%	44%	9%	17%	8%	16%	12%	58
Central	68%	25%	22%	21%	19%	7%	65%	12%	11%	5%	10%	7%	130
Eastern	63%	35%	27%	23%	24%	17%	57%	12%	13%	5%	9%	9%	150
Greater Accra	38%	23%	32%	32%	30%	15%	36%	15%	24%	17%	26%	21%	206
North East	62%	32%	48%	48%	36%	26%	48%	37%	5%	2%	27%	19%	30
Northern	58%	18%	29%	29%	23%	10%	45%	19%	10%	4%	6%	5%	87
Oti	44%	18%	33%	32%	31%	14%	33%	7%	14%	2%	10%	5%	45

Savannah	64%	10%	44%	41%	42%	19%	56%	32%	9%	3%	12%	6%	40
Upper East	56%	35%	47%	47%	41%	29%	55%	25%	31%	4%	16%	11%	75
Upper West	53%	20%	29%	29%	28%	15%	50%	11%	19%	5%	18%	14%	78
Volta	67%	13%	24%	24%	22%	21%	62%	15%	17%	3%	13%	8%	96
Western	43%	18%	24%	24%	24%	19%	40%	3%	9%	2%	11%	11%	102
Western North	62%	30%	24%	24%	22%	8%	47%	1%	15%	2%	5%	5%	53
Managing authority													
Government/public	63%	27%	33%	33%	30%	17%	57%	16%	16%	4%	13%	10%	971
NGO/private	21%	9%	16%	15%	14%	8%	20%	8%	10%	7%	9%	8%	319
Mission/faith-based	61%	37%	50%	49%	46%	37%	57%	15%	34%	13%	31%	32%	108
Quasi government/university	60%	36%	53%	53%	53%	44%	60%	20%	43%	30%	42%	43%	23
Facility type													
Regional hospital	100%	100%	100%	100%	100%	100%	100%	43%	100%	56%	81%	100%	16
District hospital	95%	85%	92%	92%	92%	78%	95%	31%	78%	22%	69%	81%	149
Other general hospital	42%	25%	36%	36%	33%	23%	40%	12%	26%	18%	28%	24%	132
Poly clinic	82%	59%	74%	74%	72%	46%	81%	40%	58%	22%	48%	42%	69
Health centre	75%	35%	51%	50%	44%	24%	71%	21%	23%	7%	21%	13%	452
Clinic/maternity home	21%	7%	14%	13%	13%	7%	19%	7%	7%	4%	5%	5%	262
CHPS	54%	17%	20%	19%	18%	8%	46%	12%	6%	1%	3%	2%	341
Expected facilities													
NCD diagnosis / surgery	60%	45%	55%	55%	53%	41%	59%	20%	44%	20%	42%	42%	366
Non-NCD diagnosis / non-surgery	51%	19%	25%	25%	23%	11%	46%	13%	10%	3%	8%	5%	1,055
Expected facilities													
CEmONC	60%	45%	55%	55%	53%	41%	59%	20%	44%	20%	42%	42%	366
Non-CEmONC	51%	19%	25%	25%	23%	11%	46%	13%	10%	3%	8%	5%	1,055
Expected facilities													
Non-BEmONC lower-level	49%	35%	44%	44%	42%	32%	47%	16%	34%	15%	32%	33%	427
BEmONC lower-level	54%	20%	27%	26%	24%	12%	48%	14%	11%	3%	8%	5%	994
Expected facilities													
EmONC	53%	23%	30%	30%	28%	16%	48%	14%	16%	6%	13%	11%	1,421

Tuberculosis service readiness (refer to table 3.2.2.2)

There is a low availability of guidelines on TB management across facilities offering TB services, averaging 12% nationally. This is in spite of a relatively higher availability of trained staff in TB management (47%) in these facilities. GeneXpert capacity appears low in these facilities (6%) but an analysis of facility type shows high availability at the regional and district levels (81% and 57%) where they are expected to be.

Drug-resistant tuberculosis service readiness (refer to table 3.2.2.3)

In facilities offering drug-resistant TB services, guidelines availability for drug-resistant TB was 26% nationally, even though 62% of the staff providing these services had had some formal training on drug-resistant TB over the two years preceding the survey. Availability of national 1st line medicines for multi-drug resistant (MDR) TB was however low across facilities surveyed (7%), with the disparity between trained staff and drug availability most prominent in the Upper West region (71% trained vs. 6% drug availability) and Greater Accra region (65% trained vs 7% drug availability). Drug availability in the Northern zone (Northern, Upper East, Upper West, Savannah

and North East) averaged 2%. Drug availability was also significantly low in facilities expected to provide services for MDR-TB (62% trained vs. 26% drug availability in district hospitals, 61% trained vs 12% drug availability in Polyclinics and 54% trained vs. 4% drug availability in Health centres) as at the time of the survey.

Tuberculosis auxiliary indicators - medicines available (facilities stocking TB medicines in bulk) (refer to table 3.2.2.4)

Whereas only 13% of facilities that stock TB medicines had bulk stocks of national first-line medicines for MDR TB, 64% of facilities had stocks of Isoniazid + rifampicin + pyrazinamide + ethambutol i.e 4 fixed-dose combination (4FDC) and Isoniazid + rifampicin (2FDC), which are the first line treatments for TB and TB preventive therapy (TPT) respectively. No private facility that stocks TB medicines had stocks of national first-line medicines for MDR TB, but about 64% of both private and mission/faith-based facilities had stocks of the first-line treatment for TB i.e. Isoniazid + rifampicin + pyrazinamide + ethambutol (4FDC). Whereas just about 50% and 25% of regional and district hospitals respectively had stocks of national first-line medicines for MDR TB, an average of 71% of hospitals and 61% of lower-level facilities had the first-line TB preventive treatment.

Human Immunodeficiency Virus (HIV)

General service availability (refer to table 1.2.2.3)

Whereas 85.5% of facilities provide services for HIV testing, diagnosis and treatment, fewer facilities surveyed provide services for HIV support and care and HIV services for paediatric patients (25% and 55% respectively). Although the national average for Antiretroviral therapy (ART) for life-long HIV treatment for facilities sampled was low at 27%, there exists a wide disparity in availability between the Upper East region (53%) and the Upper West region (5%), even though these are contiguous regions.

HIV Programme data shows that as at the end of 2022, 6,945 (87%) of facilities assigned forms for HIV testing and counselling (HTC) services had reported with just 715 of them providing ART services. which is consistent with the low treatment coverage reported by findings from the HHFA. The 5% treatment coverage observed in the Upper West region is also similar to programme data. As at the end of 2022, the region was providing ART services in only 21 facilities when 516 facilities were providing testing services (4% treatment coverage).

HIV testing service availability (refer to table 3.2.3.1)

General availability of HIV testing and counselling services, as well as HIV testing services for adolescents, is high (85% and 80% respectively) across all facilities surveyed, with the lowest availability seen in clinics and maternity homes (74% general availability vs. 68% adolescent-specific availability).

HIV testing service readiness (refer to table 3.2.3.2)

The availability of guidelines on HIV counselling and testing is generally low (27%) amongst all facilities offering HIV testing, with the Ahafo region recording the lowest of 8% availability followed by the western (12%) and western north (13%) regions. However, the availability of trained staff in HIV testing and counselling is rather highest in the western north (81%) and western (67%) regions, when the national average is 49%. HIV diagnostic capacity was above 90% amongst all levels of facilities surveyed except the CHPS level, where the capacity averaged 70%.

The HIV programme has in the last few years not provided training and capacity building on HIV testing and counselling services. Staff attrition has also been high at the testing sites resulting in the 49% reported for staff trained in HIV testing and counselling from the survey. Also due to the funding gap, testing and treatment guideline and other manuals that are normally distributed to facilities providing ART services hasn't been done. This has resulted in the 27% reported for availability of guidelines on HIV testing and counselling. The Western and Western North regions reported the highest trained staff due to the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) support to these regions in the last couple of years. However, the survey findings also showed that even the PEPFAR-supported regions have quite low numbers in terms of guidelines availability. It shows there even when the guidelines are printed there is a system weakness in ensuring that guidelines are made available at service delivery points.

HIV testing auxiliary indicators (refer to table 3.2.3.3)

Availability of HIV rapid diagnostic kits was high (82%) at the time of the survey, with 43% of facilities reporting having undertaken routine testing of the quality of the HIV RDT kits and an average of 9% recording stockouts in the last three months preceding the survey. The availability of HIV commodities has witnessed some marginal stockouts due to delays with waivers for clearance at the port of entry.

HIV testing auxiliary indicators - Infection prevention and control in HIV test area (refer table 3.2.3.4)

HIV testing sites with hand hygiene items averaged 51% nationwide (below 40% in the Ahafo, Oti, Volta, Upper East and Western North regions). Appropriate storage of sharp waste averaged 77% of these facilities (Oti and Volta regions recorded less than 50%), whereas availability of appropriate storage of non-sharp waste ranged between 8% in the Savannah region to 84% in the Greater Accra region, with a national average of 41% availability. The greatest challenge with infection prevention and control practices was found at the CHPS facilities offering HIV testing, where the availability of hand hygiene items was 37%, whereas that of sharp disposal was 70% and non-sharp disposal was as low as 19%. The provision of infection prevention capacity building for healthcare workers (HCWs) is under the mandate of the Institutional Care Division (ICD) of the Ghana Health Service.

HIV/AIDS care and support service (CSS) availability

Availability of HIV care and support services was generally low (25%) across all facilities surveyed, with such services concentrated mainly in the larger government facilities offering in-patient care i.e. regional and district hospitals, and polyclinics. Very few private facilities provide care and support services of all ranges to HIV/AIDS patients. The low HIV care and support services as well as screening and treatment of opportunistic infections reported at the lower levels of service delivery for this survey is due to the fact that lower-level facilities i.e. health centres and CHPS do not have the capacity (training and logistics) to provide care for HIV related complications.

On average, only about 20% of all facilities surveyed undertook any of the following: routine screening or testing for TB in HIV-positive patients, routine screening and diagnosis for STIs, HIV testing for children of HIV patients and testing for hepatitis B and C in HIV-positive patients. Such services were more likely to be offered in government facilities (over 90% of regional hospitals, over 75% of district hospitals and over 70% of polyclinics) than in private health facilities and facilities below the polyclinic level.

Table 3.2.4.1 - HIV care and support service (CSS)

	Any HIV care and support services	HIV CSS for adult patients	HIV CSS for adolescent patients	Links with CHWs for any HIV-related services	Preventive treatment for TB	Primary preventive treatment for opportunistic infections	Treatment of opportunistic infections	Screening for cryptococcal infection	Intravenous treatment of fungal infections	Treatment for Kaposi's sarcoma	Palliative care	Nutritional rehabilitation services	n
National	25%	24%	24%	42%	15%	20%	22%	6%	8%	6%	13%	19%	1,421
Region													
Ahafo	20%	20%	20%	29%	14%	17%	20%	4%	6%	13%	14%	20%	26
Ashanti	18%	18%	17%	28%	13%	17%	18%	5%	6%	5%	14%	14%	173
Bono	30%	30%	29%	32%	20%	28%	29%	13%	11%	12%	22%	29%	72
Bono East	29%	29%	28%	39%	21%	24%	29%	16%	14%	4%	20%	25%	58
Central	19%	19%	18%	61%	13%	18%	17%	3%	4%	3%	8%	16%	130
Eastern	27%	27%	26%	55%	14%	21%	21%	5%	7%	6%	9%	16%	150
Greater Accra	28%	28%	26%	31%	19%	24%	25%	12%	11%	11%	15%	21%	206
North East	28%	27%	27%	31%	22%	24%	27%	2%	20%	4%	23%	10%	30
Northern	19%	19%	17%	43%	5%	11%	16%	2%	5%	3%	4%	14%	87
Oti	23%	23%	23%	59%	19%	18%	21%	3%	3%	2%	14%	22%	45
Savannah	8%	8%	8%	44%	4%	7%	8%	3%	3%	1%	2%	7%	40
Upper East	47%	47%	47%	58%	35%	34%	47%	10%	9%	10%	25%	35%	75
Upper West	11%	11%	9%	53%	5%	5%	9%	3%	4%	4%	5%	8%	78
Volta	31%	31%	31%	49%	16%	23%	28%	9%	8%	4%	27%	28%	96
Western	26%	24%	24%	24%	16%	22%	24%	3%	9%	4%	12%	20%	102
Western North	19%	19%	19%	33%	10%	11%	16%	3%	4%	3%	11%	13%	53
Managing authority													
Government/public	25%	25%	24%	50%	17%	20%	22%	6%	6%	5%	12%	19%	971
NGO/private	16%	15%	14%	20%	4%	11%	15%	3%	6%	3%	10%	11%	319
Mission/faith-based	49%	49%	49%	43%	37%	43%	48%	19%	29%	22%	41%	38%	108
Quasi government/university	53%	53%	53%	44%	41%	48%	48%	31%	31%	27%	33%	53%	23
Facility type													
Regional hospital	100%	100%	100%	100%	100%	100%	100%	50%	75%	81%	100%	100%	16
District hospital	91%	90%	90%	60%	88%	88%	90%	38%	58%	54%	80%	77%	149
Other general hospital	37%	37%	35%	28%	21%	29%	34%	12%	18%	12%	24%	28%	132
Poly clinic	82%	82%	81%	63%	61%	74%	74%	27%	36%	21%	43%	69%	69
Health centre	41%	41%	39%	55%	28%	35%	39%	9%	7%	5%	20%	32%	452
Clinic/maternity home	14%	13%	13%	21%	4%	11%	13%	3%	4%	3%	8%	10%	262
CHPS	11%	11%	11%	45%	5%	7%	8%	2%	1%	1%	3%	8%	341
Expected facilities													
NCD diagnosis / surgery	56%	56%	55%	41%	43%	50%	53%	21%	31%	25%	42%	45%	366

Non-NCD diagnosis / non-surgery	18%	18%	17%	42%	10%	14%	16%	4%	3%	2%	8%	14%	1,055
Expected facilities													
CEmONC	56%	56%	55%	41%	43%	50%	53%	21%	31%	25%	42%	45%	366
Non-CEmONC	18%	18%	17%	42%	10%	14%	16%	4%	3%	2%	8%	14%	1,055
Expected facilities													
Non-BEmONC lower-level	44%	44%	43%	37%	34%	39%	42%	16%	25%	19%	33%	36%	427
BEmONC lower-level	19%	19%	18%	43%	11%	15%	17%	4%	3%	2%	8%	14%	994
Expected facilities													
EmONC	25%	24%	24%	42%	15%	20%	22%	6%	8%	6%	13%	19%	1,421

Table 3.2.4.1 - HIV care and support service (CSS) continued

	Screening for chronic cardiovascular diseases and diabetes	Family planning counselling	Condoms	Routine screening or testing for TB in HIV positive patients	Treatment for TB and HIV coinfection	Counselling on risk reduction in TB/HIV co-infected patients	Routine screening and diagnosis for STIs	Treatment of STIs	Routine HIV testing and counselling for partners	HIV testing for children of HIV patients	Testing for hepatitis B and C	n
National	17%	23%	20%	21%	17%	22%	22%	23%	22%	21%	19%	1,421
Region												
Ahafo	20%	20%	20%	20%	14%	20%	20%	20%	20%	20%	19%	26
Ashanti	16%	18%	17%	18%	14%	17%	17%	18%	17%	18%	17%	173
Bono	28%	28%	25%	28%	19%	29%	28%	29%	29%	27%	29%	72
Bono East	22%	28%	23%	26%	24%	26%	24%	27%	22%	26%	28%	58
Central	17%	19%	17%	15%	15%	16%	19%	19%	16%	15%	14%	130
Eastern	12%	23%	21%	22%	18%	22%	20%	23%	26%	21%	16%	150
Greater Accra	25%	24%	18%	24%	20%	26%	27%	27%	25%	22%	26%	206
North East	4%	28%	6%	27%	24%	26%	27%	28%	27%	27%	23%	30
Northern	8%	19%	17%	13%	10%	19%	18%	19%	14%	13%	13%	87
Oti	20%	23%	20%	21%	19%	22%	22%	23%	23%	23%	22%	45
Savannah	5%	8%	6%	7%	7%	7%	7%	7%	6%	8%	6%	40
Upper East	25%	46%	43%	39%	33%	41%	40%	42%	44%	44%	36%	75
Upper West	7%	11%	11%	9%	4%	9%	7%	6%	9%	9%	9%	78
Volta	20%	30%	26%	26%	14%	26%	27%	28%	27%	26%	15%	96
Western	19%	24%	22%	18%	17%	24%	21%	25%	23%	21%	20%	102
Western North	10%	18%	18%	12%	8%	17%	17%	16%	19%	17%	14%	53
Managing authority												
Government/public	16%	24%	22%	22%	18%	23%	22%	23%	23%	21%	18%	971
NGO/private	13%	13%	11%	10%	6%	12%	14%	15%	14%	12%	14%	319
Mission/faith-based	40%	43%	36%	44%	37%	45%	44%	47%	45%	45%	45%	108
Quasi government/university	46%	49%	44%	52%	42%	52%	53%	53%	53%	49%	52%	23
Facility type												
Regional hospital	88%	94%	94%	100%	100%	100%	94%	100%	94%	100%	81%	16
District hospital	71%	86%	74%	91%	88%	90%	84%	89%	88%	90%	82%	149
Other general hospital	31%	30%	28%	30%	24%	33%	32%	35%	32%	30%	33%	132
Poly clinic	68%	82%	71%	74%	73%	76%	78%	79%	76%	74%	63%	69

Health centre	28%	40%	35%	38%	29%	37%	37%	39%	39%	37%	32%	452
Clinic/maternity home	11%	12%	8%	8%	5%	10%	12%	13%	13%	11%	12%	262
CHPS	5%	11%	11%	8%	5%	9%	9%	9%	9%	8%	6%	341
<hr/>												
Expected facilities												
NCD diagnosis / surgery	46%	50%	45%	51%	46%	53%	51%	54%	52%	51%	49%	366
Non-NCD diagnosis / non-surgery	11%	18%	15%	15%	11%	16%	16%	17%	16%	15%	13%	1,055
<hr/>												
Expected facilities												
CEmONC	46%	50%	45%	51%	46%	53%	51%	54%	52%	51%	49%	366
Non-CEmONC	11%	18%	15%	15%	11%	16%	16%	17%	16%	15%	13%	1,055
<hr/>												
Expected facilities												
Non-BEmONC lower-level	36%	40%	35%	40%	36%	42%	40%	43%	41%	40%	39%	427
BEmONC lower-level	12%	19%	16%	15%	11%	17%	17%	17%	17%	16%	14%	994
<hr/>												
Expected facilities												
EmONC	17%	23%	20%	21%	17%	22%	22%	23%	22%	21%	19%	1,421

HIV care and support service (CSS) readiness (refer to table 3.2.4.2)

Guidelines availability for HIV care and support services in health facilities offering the service remains generally low, averaging 26% of facilities, whereas 65% of the facilities have trained staff to support care. About 60% of these facilities surveyed have the basic medications for preventing and managing opportunistic infections, with availability being higher in the hospitals than in the lower facilities.

Whereas no regional hospital had specific anti-fungal against cryptococcal infections, 15% of district hospitals providing care and support services for persons living with HIV/AIDS had the medication.

Antiretroviral therapy service availability (refer table 3.2.5.1)

On average, 1 in 4 facilities surveyed offered any ART services for life-long treatment of HIV/AIDS, ART services for adolescents and clinical treatment follow-up. These services are largely provided in government hospitals and polyclinics, with low availability in private facilities.

The national programme needs to engage and train more maternity homes and clinics which are basically private health care providers to provide ART service delivery since some HIV-positive clients access private facilities.

Antiretroviral therapy service readiness (refer to table 3.2.5.2)

Of the facilities offering ART services, only 40% of them have guidelines for ART services whereas 64% of their staff providing ART services have received training. Availability of diagnostic services is low in facilities offering ART services, with only 1-in-3 facilities available to offer full blood count (FBC) on site, and 1-in-5 offering tests for chemistry on site. 50% of facilities providing ART services had the first-line antiretroviral regimen available on site with percentage availability ranging from as low as the 30s in some regions (35% in Upper East and Northern regions, 37% in the Central region and 39% in the Savannah region) to as high as 87% in the Upper East region. Interestingly, the highest and lowest availability are seen in contiguous regions.

Prevention of Mother to Child Transmission (PMTCT) service availability

Approximately 73% of all facilities surveyed offer HIV testing to pregnant women either during the antenatal or immediate postpartum period, but only 62% of these facilities said they offered antiretroviral (ARV) prophylaxis to newborns of HIV-positive pregnant women (higher availability in higher-level government facilities). Services for early infant diagnosis (EID) were available in only 33% of the facilities surveyed (over 90% availability in government hospitals, 75% availability in polyclinics and less than 50% availability in private hospitals, health centres and lower-level facilities).

Table 3.2.6.1 – PMTCT Service Availability

	Any facilities	HIV all women known	HIV delivery known	Repeat HIV pregnant	HI for HIV+ early (sis)	HI for pregnant	HIV for pregnant	ARV for all pregnant	Nutritional counselling for HIV+ pregnant women	Infant and young child feeding counselling for infants of HIV+ women	Family planning counselling to HIV+ women	n			
National	80%	84%	66%	69%	33	58	72%	62%	30%	32%	67%	64%	69%	1,421	
Region															
Ahafo	90%	90%	81%	90%	32	65	90%	90%	31%	37%	90%	90%	90%	26	
Ashanti	91%	92%	87%	72%	29	63	82%	59%	28%	28%	78%	77%	80%	173	
Bono	70%	70%	59%	70%	28	51	64%	58%	45%	36%	59%	57%	59%	72	
Bono East	75%	75%	65%	71%	32	47	68%	65%	32%	36%	68%	54%	62%	58	
Central	79%	84%	65%	74%	38	53	73%	70%	27%	29%	68%	63%	69%	130	
Eastern	73%	84%	53%	66%	38	53	69%	54%	29%	27%	63%	60%	67%	150	
Greater Accra	82%	87%	73%	72%	38	60	73%	64%	37%	38%	66%	63%	66%	206	
North East	98%	98%	72%	63%	16	50	85%	63%	34%	44%	76%	76%	84%	30	
Northern	85%	87%	62%	54%	20	53	62%	55%	14%	17%	60%	65%	63%	87	
Oti	77%	84%	56%	71%	29	52	67%	70%	26%	39%	56%	56%	60%	45	
Savannah	87%	93%	71%	61%	21	44	72%	49%	12%	11%	67%	69%	67%	40	
Upper East	81%	87%	68%	72%	54	66	71%	70%	54%	44%	68%	68%	70%	75	
Upper West	74%	88%	41%	63%	27	60	73%	61%	7%	28%	64%	61%	66%	78	
Volta	72%	74%	62%	65%	32	61	71%	59%	20%	21%	68%	55%	68%	96	
Western	71%	72%	66%	62%	37	62	69%	51%	31%	38%	68%	64%	67%	102	
Western North	91%	94%	74%	78%	9%	71	79%	80%	44%	46%	64%	63%	69%	53	
Managing authority															
Government/public	80%	85%	64%	68%	35	60	73%	62%	30%	34%	69%	67%	72%	971	
NGO/private	76%	81%	69%	67%	23	50	67%	56%	22%	20%	60%	54%	59%	319	
Mission/faith-based	92%	92%	82%	83%	55	69	84%	80%	56%	61%	77%	77%	76%	108	
Quasi government/univers	54%	52%	40%	48%	38	48	52%	47%	29%	34%	48%	47%	48%	23	
Facility type															
Regional hospital	100	100	100	100%	94	88	100	94%	100	100	94%	100%	100%	16	
District hospital	100	100	100	90%	92	93	100	87%	94%	94%	96%	98%	98%	149	

Other general hospital	92%	95%	90%	84%	49	69	85%	72%	44%	44%	78%	78%	76%	132
Poly clinic	98%	99%	89%	94%	75	78	96%	91%	80%	92%	94%	94%	98%	69
Health centre	96%	96%	89%	87%	47	76	90%	78%	52%	52%	86%	81%	89%	452
Clinic/maternity home	65%	71%	53%	54%	14	42	55%	50%	18%	15%	50%	44%	48%	262
CHPS	74%	80%	52%	61%	24	50	65%	54%	15%	20%	60%	58%	63%	341
Expected facilities														
NCD diagnosis / surgery	95%	97%	93%	87%	63	76	90%	78%	61%	62%	85%	85%	84%	366
Non-NCD diagnosis / non-	77%	82%	61%	65%	27	54	69%	59%	24%	26%	64%	60%	65%	1,055
Expected facilities														
CEmONC	95%	97%	93%	87%	63	76	90%	78%	61%	62%	85%	85%	84%	366
Non-CEmONC	77%	82%	61%	65%	27	54	69%	59%	24%	26%	64%	60%	65%	1,055
Expected facilities														
Non-BEmONC lower-	93%	95%	90%	83%	51	71	86%	75%	54%	51%	78%	75%	78%	427
BEmONC lower-level	76%	81%	60%	65%	28	54	69%	58%	23%	27%	64%	61%	66%	994
Expected facilities														
EmONC	80%	84%	66%	69%	33	58	72%	62%	30%	32%	67%	64%	69%	1,421

PMTCT service readiness (refer to table 3.2.6.2)

Guideline availability for PMTCT and infant and young child feeding counselling averaged 25% of facilities offering the PMTCT services, as against trained personnel found in about 45% of these facilities. The use of filter paper for dried blood spots occurred in just 15% of facilities providing PMTCT services, with the highest utilization in Greater Accra (38% of facilities) and availability averaging 55% in polyclinics and 70% in government hospitals providing services. Cotrimoxazole prophylaxis was available in just about 47% of facilities offering PMTCT, ranging from a low of 4% in the Upper West region to a high of 78% in the Greater Accra region.

Paediatric HIV service availability (refer to table 3.2.7.1)

Whereas just about half of all facilities assessed offer HIV testing for children under 5 years (over 80% of these facilities are polyclinics and government hospitals), ART services and HIV care and support services for children under 5 years were available in just about 18%. ART services for children under 5 years were available in less than 10% of facilities assessed in the Northern, Savannah and Upper West regions.

Paediatric HIV service readiness (refer to table 3.2.7.2)

Cotrimoxazole syrup or dispersible tablets was available in about half of the facilities offering paediatric HIV services (57%, 76%, 62% and 54% in regional hospitals, district hospitals, polyclinics and health centres respectively). Availability was low in the Savannah, Upper West and Upper East regions (14%, 5% and 20% respectively).

Sexually transmitted infection availability (refer to table 3.2.8.1)

About 73% of all facilities surveyed provide some sexually transmitted infections (STI) services including diagnosis and treatment. These services are available in over 90% of health centres, polyclinics and hospitals assessed.

Sexually transmitted infection service readiness (refer to table 3.2.8.2)

Though guideline availability for STI diagnosis and treatment averaged 50% of facilities offering the service, there was an inadequate number of trained staff in STI diagnosis and treatment (35%) in these facilities, with the Northern and Savannah regions having the least number of facilities with trained staff (18%) offering services. Trained staff were however more likely to be found in government hospitals offering services for STI diagnosis and treatment (51% of district hospitals and 69% of regional hospitals). Aside syphilis test which is more readily available (70%) probably due to its concomitant use in maternal care, the availability of other tests for STI (Gonorrhoea, Chlamydia) was low across facilities offering services (15%), with the highest availability in the Greater Accra region (39% of facilities). Likewise, aside metronidazole (84% availability) which is low cost and routinely used in most levels of care in clinical practice, availability of the other routine medicines for managing STI was in 38% of facilities providing services.

Neglected Tropical Diseases

General Service Availability

There is a low availability of services for neglected tropical diseases (NTDs) (25%) across all facilities surveyed nationwide. Availability, however, averages 81% in regional-level facilities and 4% in district-level facilities, with hardly any services provided at the clinics and CHPS level. Less than 30% of non-public facilities offer such services. Facilities providing disease specific NTDs are low (e.g. averaging 6% for visceral leishmaniasis services) across all facilities assessed. Preventive chemotherapy (PC) relating to NTDs services is poorly integrated into the health care services. Soil-transmitted helminths services (averaging 43%) are one of the commonest NTDs in the country but helminths-specific service provision was low in this survey. Although NTDs have a low mortality, they come with severe debilitating and disabling sequelae and promote poverty and intense stigma in Ghana.

Table 3.2.9.1 – Neglected Tropical Diseases

	Any neglected tropical diseases	Dengue services	Guinea worm disease (dracunculiasis) services	Lymphatic filariasis services (including hydrocele)	Lymphoedema services	Onchocerciasis (river blindness) services	Schistosomiasis services	Soil-transmitted helminthic diseases services	Trachoma services	Visceral leishmaniasis services	Percentage of facilities supporting NTD services outside the facility, including links with CHWs	n
National	25%	5%	10%	14%	12%	13%	19%	22%	10%	6%	17%	1,421
Region												
Ahafo	32%	1%	1%	19%	25%	19%	23%	32%	20%	1%	23%	26
Ashanti	23%	2%	7%	9%	5%	10%	17%	20%	3%	3%	14%	173
Bono	45%	15%	18%	29%	27%	20%	34%	43%	17%	10%	32%	72

Bono East	41%	8%	17%	21%	18%	31%	33%	34%	16%	13%	25%	58
Central	30%	4%	11%	14%	9%	8%	18%	25%	6%	4%	17%	130
Eastern	23%	3%	8%	13%	11%	10%	16%	21%	9%	4%	19%	150
Greater Accra	25%	11%	15%	18%	18%	17%	23%	23%	17%	10%	12%	206
North East	16%	2%	4%	7%	4%	5%	7%	15%	7%	2%	16%	30
Northern	16%	4%	8%	8%	6%	8%	9%	14%	8%	2%	13%	87
Oti	11%	6%	4%	8%	8%	9%	10%	10%	7%	4%	9%	45
Savannah	43%	2%	10%	24%	5%	23%	32%	34%	10%	2%	41%	40
Upper East	26%	10%	13%	15%	13%	13%	18%	18%	15%	7%	15%	75
Upper West	19%	1%	7%	15%	12%	13%	18%	18%	12%	4%	18%	78
Volta	13%	1%	2%	5%	6%	11%	13%	13%	7%	7%	11%	96
Western	20%	4%	10%	10%	9%	10%	17%	17%	9%	4%	13%	102
Western North	37%	3%	8%	13%	18%	21%	17%	27%	8%	4%	24%	53
Managing authority												
Government/public	25%	4%	9%	13%	10%	13%	18%	21%	9%	4%	19%	971
NGO/private	21%	5%	9%	11%	11%	10%	15%	18%	10%	6%	6%	319
Mission/faith-based	43%	13%	17%	25%	25%	20%	32%	40%	19%	14%	30%	108
Quasi government/university	56%	31%	32%	37%	41%	38%	52%	51%	32%	28%	33%	23
Facility type												
Regional hospital	81%	43%	56%	75%	69%	75%	75%	75%	75%	43%	63%	16149
District hospital	64%	21%	31%	52%	51%	43%	60%	63%	42%	25%	46%	132
Other general hospital	30%	11%	15%	21%	18%	19%	27%	29%	19%	12%	17%	69
Poly clinic	61%	16%	40%	46%	30%	40%	56%	60%	25%	29%	49%	452
Health centre	44%	8%	17%	23%	19%	23%	36%	39%	15%	7%	35%	262
Clinic/maternity home	23%	5%	9%	10%	12%	10%	14%	20%	9%	5%	5%	341
CHPS	12%	1%	3%	5%	3%	5%	6%	9%	3%	1%	10%	366
Expected facilities												
NCD diagnosis / surgery	42%	15%	22%	32%	29%	28%	39%	41%	26%	17%	28%	1,055
Non-NCD diagnosis / non-surgery	22%	3%	7%	10%	8%	10%	15%	18%	7%	3%	15%	366
Expected facilities												
CEmONC	42%	15%	22%	32%	29%	28%	39%	41%	26%	17%	28%	1,055
Non-CEmONC	22%	3%	7%	10%	8%	10%	15%	18%	7%	3%	15%	427
Expected facilities												
Non-BEmONC lower-level	36%	11%	17%	25%	22%	22%	31%	35%	21%	13%	22%	994
BEmONC lower-level	22%	4%	8%	11%	9%	11%	15%	18%	7%	3%	15%	1,421
Expected facilities												
EmONC	25%	5%	10%	14%	12%	13%	19%	22%	10%	6%	17%	1,421

Neglected tropical diseases auxiliary indicators – Diagnostics and Medicines (refer to table 3.2.9.2)
Availability of specific tests for neglected tropical diseases in facilities offering this service is almost non-existent (only 1% offer specific diagnostic tests aside urine and stool tests), and specialized

specific drug availability (aside azithromycin, albendazole and tetracycline eye ointment) also remains below 10% in facilities delivering NTDs related services, even in regional hospitals.

RMNCAH and Immunisation

Reproductive, Maternal, Newborn, Child, and Adolescent Health (RMNCAH)

General Service Availability

The table provides information on the availability of specific services on Reproductive, Maternal, Newborn, Child, and Adolescent Health (RMNCAH). It shows that the percentage of facilities offering RMNCAH services ranges from 70% to 93%. Facilities offering any abortion care and care for small and sick newborns were 38% and 15% respectively. Facilities providing BEmONC services was 66% while that of CEmONC services was 20%.

Comparing regional distribution, the percentage of facilities offering CEmONC services, care for small and sick newborns and any abortion care services were less than 10% in Upper West, Western and Savannah regions.

Across the managing authority, government has the highest percentage of facilities offering RMNCAH services except for CEmONC (12%) and Care for small and sick newborn (8%) where the mission/faith-based (37%; 26%) and NGO/private (44%;48%) had a higher percentage of their facilities offering these two services. Hospitals were more likely to offer services on RMNCAH across the spectrum of services surveyed.

1.2.2.1. Reproductive, Maternal, Newborn, Child, Adolescent (RMNCAH)

	Preventive and/or curative services for children under 5	Any adolescent health services	Family planning	Antenatal care (ANC)	Prevention of mother-to-child transmission (PMTCT)	Intermittent preventive treatment of malaria in pregnancy (IPTp)	Any delivery/childbirth services	Basic emergency obstetric and newborn care (BEmONC)	Comprehensive emergency obstetric and newborn care (CEmONC)	Any newborn care services	Care for the healthy newborn	Care for the small and sick newborn	Postpartum care (PNC)	Any abortion care services	n
National	93%	97%	88%	85%	80%	84%	71%	66%	20%	81%	80%	15%	80%	38%	1,421
Region															
Ahafo	97%	93%	90%	90%	90%	90%	90%	90%	14%	90%	90%	8%	90%	43%	26
Ashanti	90%	97%	82%	92%	91%	92%	89%	73%	28%	92%	88%	29%	92%	58%	173
Bono	99%	100%	89%	70%	70%	70%	62%	62%	12%	70%	70%	10%	64%	34%	72
Bono East	95%	98%	91%	75%	75%	75%	68%	55%	17%	72%	71%	14%	72%	36%	58
Central	96%	99%	90%	84%	79%	83%	73%	65%	21%	82%	84%	12%	81%	33%	130
Eastern	89%	94%	91%	85%	73%	84%	56%	53%	16%	78%	79%	9%	77%	25%	150
Greater Accra	87%	98%	79%	87%	82%	87%	77%	75%	45%	85%	82%	31%	84%	53%	206
North East	100%	100%	99%	98%	98%	98%	92%	85%	27%	98%	88%	22%	94%	38%	30
Northern	96%	93%	87%	89%	85%	89%	68%	68%	11%	80%	82%	9%	74%	21%	87
Oti	98%	99%	88%	89%	77%	84%	65%	44%	21%	69%	69%	13%	68%	22%	45
Savannah	100%	98%	90%	98%	87%	98%	73%	71%	5%	87%	80%	5%	84%	36%	40
Upper East	98%	100%	91%	87%	81%	83%	74%	73%	15%	78%	81%	12%	82%	37%	75
Upper West	99%	99%	98%	85%	74%	85%	53%	53%	9%	82%	73%	7%	82%	25%	78
Volta	94%	97%	90%	74%	72%	71%	66%	63%	15%	69%	69%	11%	75%	17%	96
Western	89%	94%	83%	73%	71%	72%	69%	67%	8%	74%	72%	10%	74%	43%	102
Western North	93%	99%	93%	95%	91%	95%	85%	82%	11%	93%	93%	11%	91%	61%	53
Managing authority															

Government/public	98%	99%	97%	86%	80%	85%	70%	65%	12%	81%	81%	8%	81%	31%	971
NGO/private	81%	91%	67%	82%	76%	81%	75%	69%	37%	80%	76%	26%	79%	55%	319
Mission/faith-based	94%	97%	67%	92%	92%	92%	87%	80%	44%	92%	91%	48%	87%	53%	108
Quasi government/university	81%	95%	57%	54%	54%	54%	40%	40%	24%	45%	46%	28%	46%	29%	23
Facility type															
Regional hospital	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	16
District hospital	95%	100%	86%	100%	100%	100%	100%	100%	99%	100%	100%	97%	100%	96%	149
Other general hospital	86%	99%	74%	95%	92%	94%	92%	89%	77%	93%	91%	55%	93%	82%	132
Poly clinic	100%	99%	91%	99%	98%	99%	94%	94%	56%	98%	96%	51%	96%	88%	69
Health centre	96%	99%	94%	96%	96%	96%	92%	87%	15%	97%	95%	9%	95%	53%	452
Clinic/maternity home	82%	88%	63%	72%	65%	71%	61%	54%	14%	68%	64%	12%	66%	33%	262
CHPS	98%	99%	98%	81%	74%	80%	59%	54%	3%	75%	75%	1%	75%	17%	341
Expected facilities															
NCD diagnosis / surgery	90%	99%	79%	97%	95%	96%	94%	93%	82%	95%	94%	67%	95%	86%	366
Non-NCD diagnosis / non-surgery	94%	97%	89%	83%	77%	82%	67%	61%	8%	78%	77%	5%	77%	29%	1,055
Expected facilities															
CEmONC	90%	99%	79%	97%	95%	96%	94%	93%	82%	95%	94%	67%	95%	86%	366
Non-CEmONC	94%	97%	89%	83%	77%	82%	67%	61%	8%	78%	77%	5%	77%	29%	1,055
Expected facilities															
Non-BEmONC lower-level	86%	96%	80%	96%	93%	95%	95%	92%	65%	95%	93%	53%	94%	75%	427
BEmONC lower-level	95%	97%	90%	82%	76%	81%	65%	60%	8%	77%	76%	5%	77%	28%	994
Expected facilities															
EmONC	93%	97%	88%	85%	80%	84%	71%	66%	20%	81%	80%	15%	80%	38%	1,421

Life-saving commodities for RMNCAH (refer to table 2.5.2.1)

Lifesaving commodities for RMNCAH have been grouped under maternal, newborn, child health and reproductive health. The mean proportion of maternal health items (oxytocin injection, misoprostol tablets and magnesium sulphate injection) at facilities was 58%; mean proportion of newborn health items (injectable antibiotics, antenatal corticosteroids and newborn resuscitation equipment) at facilities was 34%; mean proportion of child health items (amoxicillin suspension, oral rehydration salts and zinc sulphate tablet or syrup) at facilities was 61%; and mean proportion of reproductive health items (female condoms, implants and emergency contraception) at facilities was 30%. Among the regions, only 5 out of 16 facilities had a mean proportion of maternal health items above the national average of 58%. Only 1% of facilities surveyed (n=1421) had all items (maternal, newborn, child and reproductive health items) at the time of the survey.

Family planning service availability (refer to table 3.1.1.1)

For Family planning (FP) service availability, 88% of facilities surveyed offered FP services with 79% offering implants while 4% offered male sterilisation. Across all the methods of FP services, female condoms, male sterilisation, and female sterilisation were offered in 16%, 4% and 10% of

facilities respectively. A high percentage of government facilities provided all the various FP services followed by the NGO/private as well as the mission/faith-based.

Family planning service readiness (refer to table 3.1.1.2)

The percentage of facilities in readiness to offer family planning services was grouped under staff guidelines, equipment, medicines, and commodities. National family planning guidelines availability (49%) lagged that of staff trained in family planning over the two years preceding the survey (67%), although family planning checklists and/or job aids were relatively available (66%). The proportion of facilities with all items assessed (staff and guidelines, equipment, medicines & commodities) is 11%. The government facilities reported above 50% of facilities offering family planning services under the various groupings.

Family planning auxiliary indicators (refer to table 3.1.1.3)

Amongst the facilities offering family planning services, 69% of the facilities surveyed offered any type of oral contraceptive, 79% offered implant services and 32% provided intrauterine devices (IUDs). The indicator for no stock out of FP commodities during the past 3 months stood at 16% for female condoms and 16% for emergency contraceptives, however, implants recorded 72% of no stockout.

Antenatal care service availability

The table indicates the percentage of facilities offering ANC service with a national record of 85%. Amongst the services provided nationally, facilities providing calcium supplementation for women at risk of pre-eclampsia was 25% while low-dose aspirin for women at risk of pre-eclampsia was provided in 17% of facilities. This is also seen in the regional variations of low-dose aspirin for women at risk of pre-eclampsia. Five regions namely Bono East, North East, Savannah, Upper West and Volta reported less than 10% of their facilities providing that service.

Table 3.1.2.1 – Antenatal Care Availability

	Antenatal care services	Iron supplementation	Folic acid supplementation	Intermittent preventive treatment in pregnancy (IPTp)	Tetanus toxoid vaccination	Monitoring for hypertensive disorder of pregnancy	Routine checks for urine protein	Calcium supplementation for women at risk of pre-eclampsia	Low-dose aspirin for women at risk of pre-eclampsia	HIV testing for pregnant women	Routine syphilis testing for pregnant women	Treatment with other sexually transmitted infections	Diagnosis and treatment for pregnant women with G-6PD screening for pregnant women		
National	85%	84%	84%	84%	83%	81%	76%	25%	17%	84%	81%	61%	71%	53%	1,421

Region															
Ahafo	90%	90%	90%	90%	81%	90%	90%	13%	18%	90%	90%	64%	86%	42%	26
Ashanti	92%	91%	91%	92%	90%	90%	90%	33%	27%	92%	92%	86%	87%	68%	17 3
Bono	70%	70%	70%	70%	69%	70%	69%	11%	10%	70%	69%	57%	64%	59%	72
Bono East	75%	75%	75%	75%	75%	72%	71%	17%	6%	75%	66%	44%	70%	51%	58
Central	84%	82%	82%	83%	83%	82%	82%	27%	14%	84%	81%	69%	73%	64%	13 0
Eastern	85%	84%	84%	84%	85%	78%	73%	23%	14%	84%	83%	58%	55%	45%	15 0
Greater Accra	87%	87%	87%	87%	87%	86%	87%	64%	40%	87%	86%	82%	81%	84%	20 6
North East	98%	87%	98%	98%	92%	92%	69%	19%	5%	98%	92%	59%	84%	31%	30
Northern	89%	86%	87%	89%	87%	89%	65%	13%	18%	87%	72%	38%	74%	31%	87
Oti	89%	84%	84%	84%	89%	71%	68%	13%	8%	84%	84%	52%	59%	25%	45
Savannah	98%	91%	97%	98%	98%	98%	73%	4%	4%	93%	93%	27%	72%	21%	40
Upper East	87%	83%	84%	83%	84%	76%	62%	13%	10%	87%	81%	44%	73%	39%	75
Upper West	85%	85%	85%	85%	85%	82%	61%	9%	7%	88%	85%	44%	58%	65%	78
Volta	74%	74%	73%	71%	71%	69%	71%	9%	5%	74%	71%	35%	65%	14%	96
Western	73%	73%	73%	72%	71%	72%	69%	14%	11%	72%	68%	63%	65%	50%	10 2
Western North	95%	95%	95%	95%	93%	83%	95%	21%	20%	94%	94%	75%	81%	50%	53
Managing authority															
Government/public	86%	84%	85%	85%	85%	81%	74%	15%	10%	85%	82%	55%	69%	45%	97 1
NGO/private	82%	82%	82%	81%	80%	81%	82%	50%	35%	81%	79%	73%	75%	73%	31 9
Mission/faith-based	92%	92%	92%	92%	92%	91%	89%	28%	26%	92%	91%	82%	91%	69%	10 8
Quasi government/university	54%	54%	54%	54%	50%	54%	54%	27%	27%	52%	52%	48%	47%	53%	23
Facility type															
Regional hospital	100%	100%	100%	100%	100%	100%	100%	57%	63%	100%	100%	100%	100%	100%	16

District hospital	100%	100%	99%	100%	99%	100%	100%	59%	50%	100%	100%	99%	99%	95%	149
Other general hospital	95%	95%	95%	94%	93%	94%	95%	70%	55%	95%	95%	93%	94%	88%	132
Poly clinic	99%	97%	98%	99%	99%	99%	99%	55%	42%	99%	99%	96%	99%	84%	69
Health centre	96%	95%	96%	96%	96%	93%	94%	21%	12%	96%	95%	79%	89%	63%	452
Clinic/maternity home	72%	72%	72%	71%	69%	69%	69%	30%	18%	71%	68%	59%	63%	57%	262
CHPS	81%	79%	80%	80%	80%	75%	65%	10%	6%	80%	76%	43%	59%	34%	341
Expected facilities															
NCD diagnosis / surgery	97%	96%	96%	96%	95%	96%	97%	65%	53%	97%	96%	95%	96%	90%	366
Non-NCD diagnosis / non-surgery	83%	81%	82%	82%	81%	78%	72%	17%	10%	82%	79%	54%	67%	46%	1,055
Expected facilities															
CEmONC	97%	96%	96%	96%	95%	96%	97%	65%	53%	97%	96%	95%	96%	90%	366
Non-CEmONC	83%	81%	82%	82%	81%	78%	72%	17%	10%	82%	79%	54%	67%	46%	1,055
Expected facilities															
Non-BEmONC lower-level	96%	96%	96%	95%	95%	95%	95%	57%	43%	95%	94%	89%	91%	87%	427
BEmONC lower-level	82%	80%	81%	81%	80%	77%	71%	16%	10%	81%	78%	54%	66%	44%	994
Expected facilities															
EmONC	85%	84%	84%	84%	83%	81%	76%	25%	17%	84%	81%	61%	71%	53%	1,421

Antenatal care service readiness (refer to table 3.1.2.2)

The table indicates the percentage of facilities offering antenatal care services with staff and guidelines, equipment, medicines and commodities and diagnostics. For the staff trained and guidelines category, facilities with staff who had received training in ANC and IPTp in the two years preceding the study were 60% and 69% respectively. Likewise, availability of guidelines on ANC and IPTp were 43% and 38% respectively, with relatively higher availability of checklists/jobaids in both services (60% and 66% respectively). Over 90% of all facilities providing ANC services had the key equipment assessed (blood pressure apparatus, tape measure, fetal stethoscope, adult weighing scale and examination bed). Among the commodities and medicines listed, folic acid tablets was available in most of the facilities (85%), whilst HIV diagnostic testing capacity was available in 81% of facilities surveyed. Government facilities reported 4% in readiness for calcium tablets while the

remaining facility ownerships recorded above 32%. ANC services across facility types recorded mostly moderate to higher percentages of readiness in all categories

Delivery and Basic emergency obstetric and newborn care (BEmONC)

Out of the 1421 facilities surveyed, 71% of facilities provide delivery services with 67% providing 24-hour/7 days per week delivery services by a skilled service provider. Facilities that provided BEmONC stood at 66% out of which only 15% are providing all 7 BEmONC signal functions (parenteral administration of antibiotics, parenteral administration of oxytocics, parenteral administration of anticonvulsants, assisted vaginal delivery, manual removal of placenta, manual removal of retained products of conception, neonatal resuscitation with bag and mask). Almost all regions reported that 50% of their sampled facilities provided services in BEmONC. Also, apart from the CHPS and clinics/maternity facilities, all the other higher levels of care (regional hospital, district hospital, other general hospitals, polyclinic & health centre) had high percentages of facilities providing BEmONC services.

Table 3.1.3.1 – Delivery Service Availability

	Delivery services	24 hour / 7 days week delivery services by a skilled service provider	Basic emergency obstetric care (BemOC) – facility reported	All 7 basic obstetric and newborn care signal functions (BemOC)	n
National	71%	67%	66%	15%	1,421
Region					
Ahafo	90%	72%	90%	6%	26
Ashanti	89%	84%	73%	23%	173
Bono	62%	61%	62%	9%	72
Bono East	68%	66%	55%	15%	58
Central	73%	66%	65%	10%	130
Eastern	56%	50%	53%	9%	150
Greater Accra	77%	73%	75%	33%	206
North East	92%	78%	85%	21%	30
Northern	68%	63%	68%	6%	87
Oti	65%	60%	44%	4%	45
Savannah	73%	73%	71%	5%	40
Upper East	74%	71%	73%	12%	75
Upper West	53%	47%	53%	10%	78
Volta	66%	66%	63%	7%	96
Western	69%	66%	67%	11%	102
Western North	85%	81%	82%	17%	53
Managing authority					
Government/public	70%	64%	65%	8%	971
NGO/private	75%	72%	69%	28%	319
Mission/faith-based	87%	85%	80%	30%	108
Quasi government/university	40%	34%	40%	24%	23
Facility type					
Regional hospital	100%	100%	100%	100%	16
District hospital	100%	100%	100%	83%	149
Other general hospital	92%	91%	89%	51%	132
Poly clinic	94%	94%	94%	39%	69
Health centre	92%	90%	87%	10%	452
Clinic/maternity home	61%	57%	54%	10%	262
CHPS	59%	52%	54%	2%	341
Expected facilities					
NCD diagnosis / surgery	94%	94%	93%	59%	366
Non-NCD diagnosis / non-surgery	67%	62%	61%	6%	1,055
Expected facilities					
CEmONC	94%	94%	93%	59%	366

Non-CEmONC	67%	62%	61%	6%	1,055
Expected facilities					
Non-BEmONC lower-level	95%	94%	92%	48%	427
BEmONC lower-level	65%	60%	60%	6%	994
Expected facilities					
EmONC	71%	67%	66%	15%	1,421

Obstetric care signal functions, newborn care signal functions, and perinatal routine practice service availability (refer to table 3.1.3.2)

Percentage of facilities offering delivery services were grouped under obstetric, newborn and perinatal specific services. From the obstetric services listed, proportion of facilities offering parental administration of oxytocin for treatment of postpartum haemorrhage was highest (96%), while assisted vaginal delivery recorded the lowest (31%) of the facilities surveyed. Under newborns, neonatal resuscitation with a bag and mask recorded the highest proportion of facilities offering this service (88%) while Kangaroo mother care (KMC) for premature/very small babies had the lowest (15%) of facilities providing those services. Services related to the perinatal category were recorded above 90% in all domains with a mean of 98%. The percentage of facilities offering delivery services under both the managing authority and facility type ranges from 70 to 100%.

Basic emergency obstetric and newborn care (BEmONC) service readiness (refer to table 3.1.3.3)

For BEmONC readiness, the indicators were grouped under staff guidelines, equipment, medicines and commodities. Nationally, less than 55% of the facilities surveyed had staff guidelines or checklists/job aids (either for essential childbirth care or essential newborn care). Less than 40% of facilities had access to emergency transport, vacuum aspirator or dilatation and curettage (D&C) kit, and a clean towel for drying newborns. Only 51% of facilities (n=1137) had sterilization equipment, 58% had examination light, 69% had suction apparatus, 45% had adult bag and mask whilst 52 % had neonatal bag and mask (size 0 & 1). Hand hygiene items were available in 67% of facilities surveyed. For medicines and commodities, an average of 36% of facilities had betamethasone or dexamethasone injectable, whilst skin disinfection / chlorhexidine for cord care was available in just 55% of facilities surveyed.. The proportion of facilities with all items assessed (staff guidelines, equipment, medicines and commodities) was 2%.

Basic emergency obstetric and newborn care (BEmONC) auxiliary indicators (refer to table 3.1.3.4)

For BEmONC auxiliary indicators, the percentage of facilities offering delivery services with staff trained in using corticosteroids for preterm labour was 21%, whilst only 33% and 10% of facilities offering delivery services offered ultrasound and Anti-D for RH incompatibility respectively. All regions recorded high percentages for BEmONC services with fetal stethoscope/doppler and this was replicated among the facility types. The table shows that 10 out of the 15 regions recorded less than 10% of their facilities providing Anti-D for RH incompatibility. In a similar vein, the percentage of government facilities providing that service was only 4%. Higher levels of care that provided this service were less than 50% under the facility type category. The low availability of anti-D for Rh incompatibility in government facilities may result from the non-availability of this product in regional medical stores where most government health facilities source most of their medicines.

Basic emergency obstetric and newborn care (BEmONC) auxiliary indicators - Infection prevention and control (refer to table 3.1.3.5)

The table shows the various IPC services in the provision of BEmONC. Amongst all the IPC services, at the national level, the survey recorded less than 20% of facilities having appropriate

storage of non-sharp infectious waste (18%) and appropriate storage of biological waste (17%). Half of the regions recorded less than 10% of their facilities having appropriate storage of non-sharp infectious waste while 9 out of 16 regions also recorded less than 10% of their facilities having appropriate storage of biological waste. For both indicators, the NGO/private and mission/faith-based facilities seem to have a greater number of their facilities complying with those two indicators. Aside facilities with availability of hand hygiene items which was relatively low (69%), all other IPC indicators in facilities offering delivery services were high e.g. latex gloves availability (97%, protective gowns (81%), single use standard disposable or auto-disable syringes (96%), appropriate storage of sharps waste (98%) etc.

Basic emergency obstetric and newborn care (BEmONC) auxiliary indicators - Priority medicines for mothers (refer to table 3.1.3.6)

Amongst the list of prioritised medicines for mothers, the survey showed that facilities offering delivery services with antibiotics availability was low (ranging from 18% for ampicillin powder for injection - 52% for metronidazole injection). Facilities with availability of steroids (betamethasone or dexamethasone injection) for maturing foetal lung was 36%. Facilities offering delivery services with priority medicines for obstetric haemorrhage were 94%, 89% and 70% for oxytocin injection, sodium chloride intravenous solution and misoprostol tablet respectively. Similarly, facilities with availability of magnesium sulphate injection and calcium gluconate injection were 65% and 13% respectively. Less than 35% of facilities assessed had medicines for managing hypertensive diseases in pregnancy (31% had nifedipine tab/cap, 27% had hydralazine injection and 33% had methyldopa tablet) Only 1% of all facilities assessed had all items mentioned above, a quite worrying picture of readiness for service delivery.

Oxygen service availability (in delivery service site) (refer to table 3.1.3.7)

Only 38% of the facilities sampled (n=1,137) offered oxygen in the delivery service area with the hospitals recording above 92% of facilities with this service, as against 34% in health centres, where midwives are posted to offer delivery services within a catchment area (next level of care after CHPS).

Oxygen service readiness (in delivery service site) (refer to table 3.1.3.8)

The total number of facilities surveyed providing oxygen services was 557. The percentage of facilities offering delivery and oxygen services with oxygen available was 60%. Three (Western North, Savannah and Ashanti) out of 16 regions had less than 50% of facilities having oxygen available at the time of the survey. Facilities reporting reliable oxygen services was 87%, though only 81% had a pulse oximeter for measuring oxygen saturation of clients.

Comprehensive emergency obstetric and newborn care (CEmONC)

Nationally (n=1421), the percentage of facilities offering CEmONC services were generally low, with 16% of facilities offering caesarean section and 18% offering blood transfusion services. Facilities who reported as offering CEmONC services was 20%, although only 10% reported providing all nine (9) CEmONC signal functions (7 BEmONC signal functions plus caesarean section and blood transfusion). Apart from the Greater Accra region, the other regions reported less than 30% of their facilities being able to offer services under CEmONC. It is observed that CEmONC services were predominant in other facilities not managed by the government/public. Again, CEmONC services were predominantly being offered at the higher level of care (hospitals and some polyclinics) where these services are expected to be offered. Some health centres (15%) reported

offering CEmONC services, but when the data was disaggregated into the specific CEmONC signal functions, health centres reporting that they offered either blood transfusion or caesarean section was less than 2%.

Table 3.1.4.1 - Comprehensive emergency obstetric care (CEmONC) service

	Caesarean section	Blood transfusion	Comprehensive emergency obstetric care (CEmOC) facility reported	All 9 obstetric and newborn care signal functions (CEmONC)	n
National	16%	18%	20%	10%	1,421
Region					
Ahafo	14%	14%	14%	6%	26
Ashanti	30%	30%	28%	16%	173
Bono	13%	11%	12%	9%	72
Bono East	18%	20%	17%	15%	58
Central	8%	9%	21%	5%	130
Eastern	9%	9%	16%	7%	150
Greater Accra	41%	45%	45%	25%	206
North East	20%	22%	27%	20%	30
Northern	8%	11%	11%	3%	87
Oti	7%	10%	21%	4%	45
Savannah	4%	6%	5%	3%	40
Upper East	9%	10%	15%	6%	75
Upper West	7%	7%	9%	5%	78
Volta	9%	9%	15%	6%	96
Western	11%	12%	8%	8%	102
Western North	5%	10%	11%	3%	53
Managing authority					
Government/public	6%	7%	12%	5%	971
NGO/private	40%	43%	37%	22%	319
Mission/faith-based	41%	43%	44%	28%	108
Quasi government/university	24%	33%	24%	20%	23
Facility type					
Regional hospital	100%	100%	100%	100%	16
District hospital	99%	99%	99%	83%	149
Other general hospital	86%	91%	77%	47%	132
Poly clinic	33%	55%	56%	19%	69
Health centre	1%	2%	15%	1%	452
Clinic/maternity home	11%	13%	14%	5%	262
CHPS	0%	0%	3%	0%	341
Expected facilities					
NCD diagnosis / surgery	86%	91%	82%	56%	366
Non-NCD diagnosis / non-surgery	3%	4%	8%	1%	1,055
Expected facilities					
CEmONC	86%	91%	82%	56%	366
Non-CEmONC	3%	4%	8%	1%	1,055
Expected facilities					
Non-BEmONC lower-level	67%	71%	65%	43%	427
BEmONC lower-level	3%	4%	8%	1%	994
Expected facilities					
EmONC	16%	18%	20%	10%	1,421

Comprehensive emergency obstetric care (CEmONC) service readiness (refer to table 3.1.4.2)

CEmONC readiness was analysed under four main categories. For Staff trained and guidelines, it was observed that there was a higher number of facilities with staff trained in surgery (61%) and anaesthesia (60%) in the two years preceding the survey, than there were facilities with staff trained

in CEmONC (44%) or availability of guidelines, checklists or job aids for comprehensive emergency obstetric care (31%). For equipment, 72% of the facilities offering CEmONC services (n=418) reported having a resuscitation table with a heat source while a smaller percentage of these facilities (27%) reported having anaesthesia equipment at the time of the survey. Only 32% of the facilities reported having an infant incubator. Concerning diagnosis, 55% of the facilities reported offering blood typing services while 28% of facilities alluded to cross-match testing. Amongst all the medicines and commodities, blood supply sufficiency (45%), lidocaine (48%) and suxamethonium bromide or chloride was available in less than 50% of facilities. Yet again, hardly any facility had all the items assessed under this indicator.

Abortion service availability (refer to table 3.1.5.1)

The percentage of facilities offering abortion services from the facilities survey stood at 39% with Western North recording the highest percentage of facilities (61%) and the Volta region recording the lowest. Predominantly the higher levels of care specifically the hospitals and polyclinics recorded above 86% of such facility types providing any abortion services.

Post-abortion care service readiness (refer to table 3.1.5.2)

In terms of readiness, only 27% of facilities offering abortion care services (n=735) had abortion care guidelines, as against 57% of facilities having staff who had received training in management of incomplete abortion in the two years preceding the survey. More than 64% of facilities offering abortion care services had available medicines and commodities e.g. misoprostol, pain medication, short-term contraceptive method etc. The proportion of facilities with all items assessed was 11%.

Small and sick newborn care service availability

Small and sick newborn care service availability at the national level is 15%, this percentage includes all facility types. This service per the Ghana National Newborn Strategy and Action Plan 2019-2023 is provided in hospitals and polyclinics. It is, therefore, encouraging to see 100% of regional hospitals and 97% of district hospitals providing this service. Kangaroo Mother Care (KMC) is a natural method for caring for low-birth-weight babies initiated in the health facility and continued at home. Its components include skin to skin care (caregiver and baby), nutrition, discharge, and follow-up. Per the National Newborn Strategy, KMC is provided in regional, and district level hospitals, and in polyclinics. It is therefore not surprising to see most regional and district hospitals providing this service, though availability was lower in polyclinics and other hospitals (mostly privately owned). It is however encouraging to see some health centres, maternity homes, and CHPS providing KMC. This however goes against the national guidelines. It is therefore important to identify such facilities to see whether they have personnel with the requisite training, knowledge and logistics to provide this service. Some personnel in health facilities confuse providing skin-to-skin care (as part of essential newborn care) with KMC. A facility is said to be practising KMC if all four components indicated above are provided.

Although only 6% of all facilities assessed provide exchange transfusion services, this service is available in half of district hospitals and 63% of regional hospitals. Very few other hospitals (other than designated district hospitals) and polyclinics provide this service (31% and 13% respectively). Artificial ventilation is provided in most of the regional and district hospitals assessed (100% and 82% respectively). It's low availability amongst other hospitals and polyclinics (31% and 27% respectively) as well as less than 5% availability in lower-level health facilities is of concern, since

ventilation with bag-and-mask is expected to be provided in almost every facility where small and sick newborn care services are provided.

Table 3.1.6.1 - Small and Sick Newborn Care Service Availability

	Small or sick newborn care	Kangaroo mother care (KMC) for premature/v babies (ever provided)	Kangaroo mother care (KMC) for premature/v babies (provided in last 3 months)	Alternative feeding if baby unable to breastfeed	Thermal protection	Oxygen	Intravenous rehydration	Exchange transfusion services	Artificial ventilation	n
National	15%	11%	8%	11%	10%	14%	14%	6%	9%	1,421
Region										
Ahafo	8%	8%	4%	3%	7%	8%	8%	4%	8%	26
Ashanti	29%	23%	16%	22%	19%	27%	26%	15%	17%	173
Bono	10%	10%	9%	9%	10%	10%	10%	2%	10%	72
Bono East	14%	14%	14%	11%	14%	13%	14%	9%	8%	58
Central	12%	11%	8%	9%	7%	8%	11%	2%	9%	130
Eastern	9%	6%	5%	6%	5%	8%	7%	5%	4%	150
Greater Accra	31%	14%	10%	24%	18%	30%	29%	12%	14%	206
North East	22%	22%	22%	5%	20%	22%	22%	2%	19%	30
Northern	9%	6%	4%	5%	4%	5%	6%	2%	3%	87
Oti	13%	9%	3%	9%	11%	9%	11%	4%	10%	45
Savannah	5%	4%	4%	5%	4%	5%	4%	1%	5%	40
Upper East	12%	9%	8%	7%	9%	10%	11%	4%	9%	75
Upper West	7%	6%	5%	3%	5%	6%	6%	3%	6%	78
Volta	11%	9%	6%	9%	8%	7%	8%	5%	7%	96
Western	10%	10%	10%	8%	7%	9%	10%	5%	6%	102
Western North	11%	6%	3%	7%	4%	8%	8%	3%	3%	53
Managing authority										
Government/public	8%	7%	6%	6%	6%	7%	7%	3%	5%	971
NGO/private	26%	14%	8%	19%	16%	25%	25%	12%	14%	319
Mission/faith-based	48%	39%	36%	38%	33%	43%	45%	22%	37%	108
Quasi government/university	28%	28%	28%	23%	23%	28%	28%	10%	9%	23
Facility type										
Regional hospital	100%	100%	94%	100%	100%	100%	100%	63%	100%	16
District hospital	97%	94%	85%	77%	92%	96%	97%	50%	82%	149
Other general hospital	55%	37%	28%	46%	40%	54%	53%	31%	31%	132
Poly clinic	51%	38%	28%	31%	32%	39%	42%	13%	27%	69
Health centre	9%	6%	4%	6%	4%	6%	7%	1%	4%	452
Clinic/maternity home	12%	3%	1%	5%	3%	10%	10%	2%	4%	262
CHPS	1%	1%	0%	1%	0%	0%	0%	0%	0%	341
Expected facilities										
NCD diagnosis / surgery	67%	54%	45%	54%	54%	65%	65%	35%	46%	366
Non-NCD diagnosis / non-surgery	5%	3%	1%	3%	2%	4%	4%	1%	2%	1,055
Expected facilities										
CeMmONC	67%	54%	45%	54%	54%	65%	65%	35%	46%	366
Non-CeMmONC	5%	3%	1%	3%	2%	4%	4%	1%	2%	1,055
Expected facilities										
Non-BEmONC lower-level	53%	42%	35%	42%	42%	51%	50%	27%	36%	427
BEmONC lower-level	5%	3%	1%	3%	2%	4%	4%	1%	2%	994
Expected facilities										

EmONC	15%	11%	8%	11%	10%	14%	14%	6%	9%	1,42 1
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Small and sick newborn care service readiness (refer to table 3.1.6.2)

The number of facilities offering small and sick newborn care services with availability of guidelines for this service was low generally (guidelines for breastfeeding – 49%, guidelines for neonatal sepsis – 37% and guidelines for KMC – 35%). However, percentage of facilities offering this service with staff who had received training in the provision of the specific service was relatively slightly higher for each category (staff trained in breastfeeding and counselling for promoting breastfeeding – 65%, staff trained in neonatal sepsis – 45% and staff trained in KMC – 39%). For all these service indicators, availability was higher amongst the government high level facilities (polyclinics, district, and regional hospitals) than in the other health facilities assessed.

Regarding guidelines for breastfeeding, the national score of 49% may be an issue of poor dissemination of the guidelines at the facility level. Clearly, some regions had relatively good scores. North East, Savanna, Bono, Oti and Upper West recorded 90%, 77%, 72%, 72% and 70% respectively. Regions like Ahafo (15%), Western North (18%), Volta (30%) and Central (39%) who recorded low scores suggests inadequate dissemination of the guidelines at the facility level. National would have to review and monitor the dissemination processes in these regions. This also applies to guidelines for neonatal sepsis and KMC.

Most of the facilities offering small and sick newborn care services had facilities for providing antibiotics to them (74% for amoxycillin suspension/or dispersible tablet and 94% for injectable antibiotic for neonatal sepsis).

Postpartum care for mothers and newborns (refer to table 3.1.7.1)

For postpartum care services, percentage of facilities offering these services (counselling of mother and/or caregiver on family planning, danger signs in newborn, cord care & hygiene, child nutritional needs and good feeding practices, child immunization needs, provision of newborn vaccines etc.) were above 75%.

Postpartum care service readiness (refer to table 3.1.7.2)

Most facilities offering postpartum care services did not have guidelines for maternal postpartum care (60%), as against only 53% of facilities having staff trained in maternal postpartum care in the two years preceding the study. Half of facilities (49%) providing postpartum services did not have chlorhexidine at the time of the survey. All the other indicators assessed i.e. facilities with infant weighing scales, thermometer etc. were all relatively high

3.1.8.1. Child health preventative and curative care service availability

Percentage of facilities offering preventative/curative care services for children under 5 years is very high, scoring 93% as the national average. The types of services can be grouped broadly into preventative and curative services. The preventative services: growth monitoring for children under 5 and vitamin A supplementation both scored a national availability in facilities of 84%. It is expected that these services are available in all healthcare facilities at all levels, including being provided as outreach services in non-government/privately managed facilities. The survey however revealed that growth monitoring and promotion (GMP) services are not available in about 49% of

clinics/maternity homes, which could be the case for such facilities if situated in small communities where such services are available on an outreach basis.

Over 60% of facilities surveyed offer some outpatient management, or diagnosis and treatment of childhood illnesses and malnutrition. This ranged from a low of 47% of facilities offering outpatient management of severe acute malnutrition without complications in children under 5 years, to a high of 89% of facilities offering diagnosis and treatment of diarrhoea with ORS and zinc in children under 5 years. Facilities providing inpatient management of severe malnutrition with complications in children under 5 years is however low (11%), mostly centred around regional hospitals (100%, district hospitals (89%), polyclinics (40%) and other general hospitals (32%). This service per operational guidelines is provided in the higher-level facilities.

The Community Management of Severe Acute Malnutrition (SAM) programme was implemented in a gradual phased approach. As of the time of assessment, the capacity for delivery of SAM services has been scaled up region-wide in the 5 regions in the North (Northern, Savanna, North East, Upper East and Upper West regions), Greater Accra, Central and Eastern and for many of them, capacity still exist. In recent times, training has been conducted for staff in the Ashanti region which has greatly improved the availability of services. In the Bono, Bono East, Ahafo, Western North, Western, Volta and Oti regions, however, selected districts were trained and provided commodities to manage SAM. However, no training has been conducted in these regions for the past 3-4 years. This could account for the low availability in these regions. SAM services are likely to be less available in clinics/maternity homes and other general hospitals because they are mainly available in government/publicly managed facilities.

Table 3.1.8.1 - Child Health Preventative and Curative Care Service Availability

	Preventive or curative care for children under 5	Routine growth monitoring in children under 5	Diagnosis and/or treatment of malnutrition in children under 5	Outpatient management of severe acute malnutrition without complications in children under 5	Inpatient management of severe malnutrition with complications in children under 5	Outpatient management of other categories of malnutrition/undernutrition in children under 5	Routine vitamin A supplementation	Diagnosis and treatment of anaemia with iron supplementation in children under 5	Diagnosis and treatment of diarrhoea with ORS and zinc in children under 5	Diagnosis and treatment of first-line pneumonia in children under 5	Diagnosis with blood test, and treatment with ACT in children under 5	n
National	93%	84%	76%	47%	11%	63%	84%	76%	89%	63%	88%	421
Region												
Ahafo	97%	86%	56%	30%	14%	37%	86%	88%	97%	75%	97%	26
Ashanti	90%	77%	70%	56%	16%	57%	76%	82%	86%	75%	87%	173
Bono	99%	89%	96%	36%	10%	72%	89%	80%	96%	78%	99%	72
Bono East	95%	81%	55%	18%	13%	38%	74%	73%	91%	59%	88%	58
Central	96%	89%	74%	45%	9%	63%	87%	66%	91%	36%	90%	130
Eastern	89%	86%	73%	43%	10%	64%	86%	68%	83%	45%	74%	150
Greater Accra	87%	69%	72%	33%	20%	64%	70%	81%	85%	76%	86%	206
North East	100%	100%	100%	74%	30%	85%	100%	70%	98%	76%	98%	30
Northern	96%	87%	86%	55%	3%	74%	86%	77%	93%	77%	93%	87
Oti	98%	97%	50%	25%	5%	37%	96%	56%	98%	54%	93%	45
Savannah	100%	97%	91%	68%	4%	90%	96%	93%	98%	70%	100%	40
Upper East	98%	92%	89%	74%	10%	87%	93%	93%	95%	80%	90%	75
Upper West	99%	96%	92%	84%	6%	85%	96%	88%	99%	66%	97%	78
Volta	94%	85%	76%	63%	6%	67%	85%	80%	91%	67%	88%	96

Western	89%	84%	67%	28%	10%	43%	83%	69%	86%	48%	86%	102
Western North	93%	87%	74%	22%	9%	42%	84%	67%	76%	43%	80%	53
<hr/>												
Managing authority												
Government/public	98%	97%	83%	57%	9%	71%	97%	76%	93%	58%	91%	97 1
NGO/private	81%	49%	52%	18%	13%	40%	47%	74%	79%	69%	78%	31 9
Mission/faith-based	94%	87%	84%	46%	35%	72%	90%	92%	93%	88%	94%	10 8
Quasi government/university	81%	63%	68%	54%	20%	51%	65%	74%	79%	77%	79%	23
<hr/>												
Facility type												
Regional hospital	100%	100%	100%	94%	100%	100%	100%	100%	100%	94%	100%	16
District hospital	95%	92%	95%	88%	89%	91%	92%	94%	94%	92%	95%	14 9
Other general hospital	86%	70%	72%	31%	32%	60%	70%	83%	85%	83%	83%	13 2
Poly clinic	100%	99%	98%	71%	40%	93%	98%	100%	98%	94%	98%	69
Health centre	96%	90%	89%	59%	5%	79%	90%	89%	93%	82%	93%	45 2
Clinic/maternity home	82%	51%	51%	22%	7%	37%	47%	72%	78%	63%	78%	26 2
CHPS	98%	98%	78%	51%	2%	64%	98%	69%	92%	46%	89%	34 1
<hr/>												
Expected facilities												
NCD diagnosis / surgery	90%	78%	81%	50%	49%	71%	79%	88%	88%	86%	88%	36 6
Non-NCD diagnosis / non-surgery	94%	86%	75%	46%	4%	61%	85%	74%	89%	58%	88%	1, 05 5
<hr/>												
Expected facilities												
CEmONC	90%	78%	81%	50%	49%	71%	79%	88%	88%	86%	88%	36 6
Non-CEmONC	94%	86%	75%	46%	4%	61%	85%	74%	89%	58%	88%	1, 05 5
<hr/>												
Expected facilities												
Non-BEmONC lower-level	86%	70%	72%	43%	38%	63%	69%	81%	84%	77%	84%	42 7
BEmONC lower-level	95%	88%	77%	48%	4%	63%	88%	75%	91%	59%	89%	99 4
<hr/>												
Expected facilities												
EmONC	93%	84%	76%	47%	11%	63%	84%	76%	89%	63%	88%	1, 42 1

Child health preventative and curative care service readiness (refer to table 3.1.8.2)

None of the facilities had the full complement of all items, medicines and commodities for delivering preventative/curative services for children under 5 years.

About 55% of facilities providing child health preventative and curative services had staff having received training in growth monitoring in the last 2 years preceding the survey. Wide differences exist among regions, with facilities in seven (7) regions having more than the national average of facilities with trained staff. The lowest percentage of 30% was recorded in the Volta region and the highest in the Oti region with 87%. However, facilities with guidelines for growth monitoring, guidelines for IMCI and staff trained in IMCI was relatively low (36%, 33% and 29% respectively).

Fifty-four (54%) percent of all facilities across the country reported that they have child weighing scales. Wide variations of availability exist, with the highest availability of 86% in both North East and Volta regions and the lowest availability in the Bono region. North East region received a donation of equipment in 2020 and this may have accounted for the improved availability. Though some weighing scales were distributed to regions between 2018 and 2020, these were mainly kept

for use at OPDs and ANCs; therefore, there will be the need to provide more, especially targeting the preventive services and outreach services for Child Welfare Clinics.

Availability of length/height boards is at 73% across the country. Mission/faith-based facilities fell behind other facility types in their availability. The presence of length/height boards at the child welfare services is inadequate from several monitoring activities conducted.

Availability of maternal and child health record books (MCHRB) is 73% across all facilities offering child health preventive and curative care services, and this needs to be improved since availability should be 100%.

Most facilities in the regions offering child health preventative and curative care services have equipment and items for diagnostic purposes, however, about 50% of the regions score below 10% in testing parasites in the stool. Oral rehydration salt seems to be available in most regions as most of them are above the national percentage of 70%. Haemoglobin testing across the regions is low (46% availability), with seven (7) regions recording values below the national average. Malaria diagnostic testing is high (98%) across the regions and facility types. Paracetamol syrup/suspension is adequately available in the most regions except with the six northern regions which recorded very low percentages, with North East recording as low as 20%.

Out of the total facilities, 87% have ACTs for malaria treatment available, about 70-75% have ORS, paracetamol syrup/suspension and mebendazole tablets, 62% have zinc sulphate tablets, 54% to 55% have Vitamin A capsules, iron tablets and amoxicillin suspension. It is expected that all public health units should stock vitamin A for preventative service delivery. The country recorded stockouts of vitamin A capsules in 2022, which coincided with the period of data collection, and this may have contributed to the over 40% of facilities without vitamin A capsules.

Twelve (12%) percent of facilities have Ready to use therapeutic food (RUTF) to manage SAM at the facility level. Less than 5% have commodities for inpatient care management of SAM (F-100 and F-75), and 4% have micronutrient powders. RUTF is expected to be present in all facilities at all levels; however, all facility types had less than 40% availability with CHPS and Health Centres having the lowest availability. Though RUTF is not currently expected to be stocked in maternity homes, about 4% had them.

RUTF, the first line of treatment for severe acute malnutrition is expected to be stocked by all facilities, especially those trained to use them. However, availability has largely been donor-supported. Unfortunately, for over 3-5 years now, such commodities have not been provided on a nationwide basis (only North East and Ashanti regions have had some donations in the past 2-3 years) and they are currently not part of the essential medicines list, hence their unavailability. Its absence in the facilities is likely to affect the outcomes of children who are diagnosed with severe acute malnutrition.

F-100 and F-75 are used to treat complicated cases of severe acute malnutrition and should be found only in hospitals (regional and district hospitals), though they recorded low availability in these facilities. Annual reports have shown increases in in-patient SAM cases and this makes the presence of the commodities very essential.

Micronutrient powders (MNPs) are received as a donation and are usually distributed by selected facilities. There is no national policy to distribute MNPs in all facilities as a public health intervention. This may account for its unavailability in some of the facilities which offer preventative/curative services. It is recommended that the Service may have to intensify efforts to put SAM management supplies as part of the essential medicines list to improve availability at all levels.

Child health auxiliary indicators - Priority medicines for children (refer to table 3.1.8.3)

Amongst the priority medicines for children, the low percentages of facilities (less than 50%) that offered this service with the medicines listed above were ampicillin powder for injection (14%), ceftriaxone injection (37%), gentamicin injection (36%), procaine benzylpenicillin injection (10%), artesunate rectal or injectable (47%) and morphine (oral or injectable) (20%). Regional percentages of facilities providing these medicines were low mostly for Ampicillin powder for injection, Procaine benzylpenicillin injection and Morphine.

Immunization

General Service Availability

The percentage of facilities offering immunisation services for the various age cohorts at the national level was 85% which is consistent with GHS data as some facilities offer only specialised services and do not have the infrastructure to provide immunisation services. However, within the various age cohorts for immunization, facilities offering services for children 1-5 years recorded the least of 69% even though immunisation services are offered comprehensively for children 0-5 years. This may be a result of most maternity homes providing vaccination services for only the children they deliver.

On the contrary, poor understanding of the immunisation catch-up policy and the absence of job aids may be contributory factors. Among the 16 regions, only five regions (Ashanti, Bono East, Central, Greater Accra, and Western) performed less than 80%. Greater Accra recorded the lowest of 68% which could be attributed to the presence of a higher number of facilities operating under private/NGO which recorded 48% for the availability of immunisation services. Generally, immunisation services are largely provided by the government/public facilities.

Clinics and maternity homes recorded as low as 48% though they conduct deliveries and are expected to provide immunization services for these babies. However, most private clinics are specialised facilities that do not prioritise immunisation services.

Table 1.2.2.1 - Immunization

.	Any immunization services	Infant (<1 year) immunizations	Child (1-5 year) immunizations	Adolescent/adult immunizations	n
National	85%	83%	69%	84%	1,421
Region					
Ahafo	86%	86%	52%	86%	26
Ashanti	79%	76%	67%	77%	173
Bono	89%	88%	83%	84%	72
Bono East	82%	76%	31%	78%	58
Central	84%	84%	76%	82%	130
Eastern	93%	92%	56%	91%	150
Greater Accra	68%	65%	58%	67%	206
North East	100%	100%	77%	100%	30
Northern	85%	84%	61%	84%	87
Oti	96%	96%	79%	96%	45
Savannah	97%	97%	88%	97%	40
Upper East	94%	92%	85%	94%	75
Upper West	96%	95%	88%	95%	78
Volta	87%	87%	81%	87%	96
Western	82%	82%	72%	82%	102
Western North	88%	86%	76%	87%	53
Managing authority					
Government/public	98%	98%	80%	97%	971
NGO/private	48%	43%	38%	47%	319
Mission/faith-based	87%	86%	72%	85%	108
Quasi government/university	65%	61%	57%	65%	23
Facility type					
Regional hospital	100%	100%	75%	100%	16
District hospital	93%	93%	77%	93%	149
Other general hospital	67%	65%	56%	67%	132

Poly clinic	99%	98%	79%	99%	69
Health centre	92%	91%	77%	92%	452
Clinic/maternity home	48%	44%	39%	47%	262
CHPS	99%	99%	79%	98%	341
Expected facilities					
NCD diagnosis / surgery	77%	76%	64%	77%	366
Non-NCD diagnosis / non-surgery	86%	85%	70%	85%	1,055
Expected facilities					
CEmONC	77%	76%	64%	77%	366
Non-CEmONC	86%	85%	70%	85%	1,055
Expected facilities					
Non-BEmONC lower-level	68%	65%	56%	68%	427
BEmONC lower-level	89%	88%	72%	88%	994
Expected facilities					
EmONC	85%	83%	69%	84%	1,421

Service-specific availability (refer to table 3.1.9.1)

Of the surveyed facilities, some specific immunisation services availability at the national level was low. Services like Human papillomavirus (HPV) vaccination for adolescents/adults was 5%, Influenza vaccination for adolescents/adults was 5%, and Hepatitis B vaccination birth dose was 26%, even though not currently part of the routine national Expanded Programme on Immunization (EPI) schedule. The percentage of facilities offering routine child immunization daily, weekly and monthly were 25%, 31% and 26% respectively. However, no facility offered routine child immunization quarterly.

Even though immunisation is available in 85% of facilities, only 25% of all facilities surveyed offer routine child immunization daily which is contrary to the EPI Policy that recommends daily immunization in all facilities.

Using Diphtheria-Pertussis-Tetanus (DPT) vaccine as a proxy for childhood immunization services, Greater Accra, Bono East and Ashanti recorded less than 80% of facilities offering these vaccination services.

Immunization service readiness (refer to table 3.1.9.2)

Among the facilities surveyed, 68% had staff who had received training in child immunization in the preceding two years, whereas 40% of facilities had immunization guidelines. Volta region had the highest number of facilities (90%) with functional vaccine fridges, whilst the Upper East region recorded the least number of facilities (53%). Only 47% of facilities were able to maintain an appropriate refrigerator temperature for their vaccines at the time of the survey.

Availability of anti-snake venom was extremely low (6%) nationally, with only Ashanti and Ahafo regions recording availability in more than 10% of facilities. Surprisingly, only 44% of regional hospitals, 20% of district hospitals and 21% of polyclinics had stocks of such an essential commodity.

Immunization auxiliary indicators - Trained staff (refer to table 3.1.9.3)

Staff trained in the spectrum of immunization services in the two years preceding the survey was low, with percentage of facilities reporting staff trained as follows: staff trained in immunization

services – 54%, staff trained in vaccine management/handling and cold chain – 64%, staff trained in data reporting and monitoring of service delivery including Data Quality Surveys (DQS) – 47%, staff trained in disease surveillance and reporting – 54%, staff trained in injection safety and waste management – 58% and staff trained in Reaching Every District (RED) – 24%. The low availability of retrained staff will negatively affect the delivery of quality immunization services to clients. Lower levels of staff receiving training recorded at the national level is also reflected at all levels of service delivery. According to the national immunisation policy, any staff performing immunization services must be provided with refresher training at least once every 3 years. This clearly has not been the case and could result from budgetary constraints.

Immunization auxiliary indicators - Vaccine stockouts (refer to table 3.1.9.4)

As high as 25% of all facilities surveyed had stock out in at least one routine vaccine in the past 3 months. Vaccines that were frequently out of stock were OPV, measles and rotavirus vaccines. Regionally Northern and North East reported high percentages of facilities reporting stockouts of vaccines. Generally, stockouts were of major concern in higher-level facilities than the lower ones.

Adolescent health service availability

For adolescent health, the national average of facilities offering any family planning services for unmarried adolescents stood at 85%. Services that are barely offered by facilities include ART services for adolescents (21%), HIV care and support services for adolescents (24%), voluntary male medical circumcision (VMMC) services for adolescents (13%) and TB treatment for adolescents (18%). Government/public facilities largely provided adolescent health services followed by NGO/private facilities. The higher levels of care (hospitals) and health centres recorded higher percentages of facilities providing adolescent services compared to clinic/maternity and CHPS facilities.

Table 3.1.10.1 - Adolescent health service availability

	Any family planning services for unmarried adolescents	Abortion services for adolescents	HIV testing services for adolescents	ART services for adolescents	HIV care and support services for adolescents	Voluntary male medical circumcision (VMMC) services for adolescents	TB diagnosis for adolescents	TB treatment for adolescents	n
National	85%	32%	80%	21%	24%	13%	28%	18%	1,421
Region									
Ahafo	88%	43%	56%	11%	20%	23%	49%	28%	26
Ashanti	79%	53%	86%	18%	17%	18%	32%	21%	173
Bono	82%	29%	69%	27%	29%	14%	26%	16%	72
Bono East	89%	35%	76%	24%	28%	18%	24%	17%	58
Central	90%	28%	80%	21%	18%	5%	19%	18%	130
Eastern	87%	18%	85%	19%	26%	8%	24%	12%	150
Greater Accra	73%	45%	83%	25%	26%	14%	30%	23%	206
North East	99%	30%	79%	29%	27%	3%	36%	27%	30
Northern	86%	11%	68%	12%	17%	7%	23%	11%	87
Oti	88%	22%	83%	25%	23%	16%	31%	17%	45
Savannah	90%	31%	90%	8%	8%	9%	42%	9%	40
Upper East	90%	31%	77%	35%	47%	31%	41%	28%	75
Upper West	95%	18%	78%	5%	9%	18%	28%	14%	78
Volta	88%	15%	87%	18%	31%	4%	22%	17%	96
Western	83%	40%	79%	27%	24%	10%	24%	16%	102

Western North	93%	49%	80%	24%	19%	9%	22%	4%	53
Managing authority									
Government/public	97%	26%	82%	23%	24%	9%	30%	19%	971
NGO/private	60%	47%	74%	8%	14%	17%	14%	8%	319
Mission/faith-based	58%	46%	86%	48%	49%	30%	46%	39%	108
Quasi government/university	57%	29%	88%	43%	53%	24%	53%	38%	23
Facility type									
Regional hospital	100%	100%	100%	100%	100%	75%	100%	100%	16
District hospital	78%	91%	97%	94%	90%	51%	92%	91%	149
Other general hospital	70%	70%	86%	27%	35%	31%	33%	29%	132
Poly clinic	91%	83%	99%	77%	81%	20%	72%	72%	69
Health centre	92%	47%	91%	37%	39%	18%	44%	31%	452
Clinic/maternity home	57%	30%	68%	8%	13%	9%	13%	4%	262
CHPS	97%	11%	78%	9%	11%	4%	18%	6%	341
Expected facilities									
NCD diagnosis / surgery	74%	77%	90%	50%	55%	36%	53%	51%	366
Non-NCD diagnosis / non-surgery	87%	24%	78%	15%	17%	8%	23%	11%	1,055
Expected facilities									
CEmONC	74%	77%	90%	50%	55%	36%	53%	51%	366
Non-CEmONC	87%	24%	78%	15%	17%	8%	23%	11%	1,055
Expected facilities									
Non-BEmONC lower-level	72%	67%	83%	40%	43%	30%	42%	39%	427
BEmONC lower-level	88%	23%	80%	16%	18%	8%	24%	12%	994
Expected facilities									
EmONC	85%	32%	80%	21%	24%	13%	28%	18%	1,421

Adolescent health service readiness (refer to table 3.1.10.2)

Facilities with staff who had received training in the two years preceding the survey in health-related services targeting adolescents were generally low, ranging from 25% of facilities with staff providing ART services trained in initiation and management of ART for adolescents, to 50% of staff trained in provision of adolescent health services. Likewise, availability of guidelines to guide service delivery was low across board, with only 18% of facilities indicating availability of guidelines for service provision to adolescents, and 23% with guidelines for adolescent reproductive health services. Even amongst regional and district hospitals which are expected to operate functional adolescent units, guidelines availability was below 50%, though facilities with staff who had received training in the past two years were above 87% for regional hospitals and 61% for district hospitals.

Surgery Palliative and Emergencies

General service availability

Availability of specific services

Two-thirds of facilities (66%) surveyed conduct surgeries (either minor or major); only 16% of facilities provide major surgical procedures (defined as the three Bellwether surgical procedures i.e. caesarean section, reduction and fixation of open long-bone fractures and laparotomy). Almost all hospitals (95%) reported offering both minor and major surgical procedures, with over 85% of them providing major surgical procedures. However, only 3% of facilities reported providing all three Bellwether surgical procedures, made up 43% of regional hospitals, 20% of district hospitals and 19% of other general hospitals. Ideally, for a regional hospital that also serves as the largest GHS referral centre in the region and some double as training centres for healthcare personnel, it is expected that 100% of them will perform these three surgical procedures. Interestingly, 5% of polyclinics indicated they provide all major surgeries, which is not expected at this level of service delivery.

The Bono East, Greater Accra, and Ashanti regions are the only regions with more facilities providing all three Bellwether procedures (9%, 8% and 5% respectively) than the national average (3%). All the regions across the northern part of Ghana have between 0% - 2% of their facilities performing all three. This will not auger well for the national drive to reduce maternal deaths and deaths resulting from road traffic accidents. For facilities below hospital level that are currently undertaking orthopedic procedures, it is recommended that their capacity be built to enable them perform such orthopaedic procedures according to standards expected. This can be done by upgrading these facilities to general hospitals.

Table 1.2.2.7 – Surgical Services

.	Any minor or major surgical procedures	Minor surgical procedures	Major surgical procedures	Voluntary male medical circumcision (VMMC)	Any of the three Bellwether surgical procedures	All of the three Bellwether surgical procedures	n
National	66%	65%	16%	24%	16%	3%	1,421
Region							
Ahafo	91%	91%	14%	46%	14%	2%	26
Ashanti	63%	62%	28%	39%	28%	5%	173
Bono	94%	94%	13%	14%	13%	2%	72
Bono East	76%	74%	18%	20%	18%	9%	58
Central	72%	72%	9%	11%	8%	1%	130
Eastern	49%	48%	10%	25%	9%	3%	150
Greater Accra	85%	85%	39%	31%	39%	8%	206
North East	78%	78%	20%	10%	20%	1%	30
Northern	74%	74%	11%	8%	9%	1%	87
Oti	22%	17%	7%	22%	7%	1%	45
Savannah	65%	65%	4%	11%	4%	1%	40
Upper East	48%	45%	9%	44%	9%	2%	75
Upper West	39%	38%	6%	20%	6%	3%	78
Volta	69%	64%	9%	7%	9%	1%	96
Western	72%	72%	11%	32%	11%	2%	102
Western North	52%	52%	5%	20%	5%	0%	53
Managing authority							
Government/public	58%	57%	6%	20%	5%	1%	971
NGO/private	80%	79%	39%	31%	38%	6%	319
Mission/faith-based	93%	93%	43%	48%	41%	10%	108

Quasi government/university	85%	85%	24%	24%	24%	23%	23
Facility type							
Regional hospital	100%	100%	100%	81%	100%	43%	16
District hospital	100%	100%	96%	65%	96%	20%	149
Other general hospital	95%	95%	85%	47%	84%	19%	132
Poly clinic	95%	95%	33%	45%	30%	5%	69
Health centre	78%	77%	1%	32%	1%	0%	452
Clinic/maternity home	69%	69%	11%	21%	10%	0%	262
CHPS	48%	47%	0%	13%	0%	0%	341
Expected facilities							
NCD diagnosis / surgery	97%	97%	84%	52%	83%	19%	366
Non-NCD diagnosis / non-surgery	60%	59%	3%	19%	3%	0%	1,055
Expected facilities							
CEmONC	97%	97%	84%	52%	83%	19%	366
Non-CEmONC	60%	59%	3%	19%	3%	0%	1,055
Expected facilities							
Non-BEmONC lower-level	91%	90%	65%	46%	64%	15%	427
BEmONC lower-level	59%	58%	3%	18%	3%	0%	994
Expected facilities							
EmONC	66%	65%	16%	24%	16%	3%	1,421

Minor surgery service availability (refer to table 3.4.1.1)

Nationally, 65% of facilities reported providing any minor surgical procedures however, this varies widely across regions from 17% of facilities in Oti region to 94% in Bono region. The most widely available minor surgical procedure nationwide was suturing of laceration, available in 63% of facilities nationwide (ranging from 16% in the Oti region to 94% in the Bono region), while Chest tube insertion, Biopsy of the lymph node or other mass and close repair of fracture were the least available (9% each). However, when disaggregated to levels where these services were expected to be provided i.e. hospitals, then government hospitals providing these services were relatively higher at >63% for chest tube insertion, >59% for biopsy of lymph node and other masses and >72% for closed repair of fracture. It however remains worrying that chest tube insertion which is a critical intervention in emergencies is not available across all district and regional hospitals, with only 40% availability amongst other general hospitals.

Across the country, the Oti region is noted to have the lowest percentage of facilities that perform minor surgeries, probably due to having fewer hospitals available and inadequate human resources.

Minor surgery service readiness (refer to table 3.4.1.2)

In facilities offering minor surgery services, 87% had sterile latex gloves available (ranging from 63% in the Ahafo region to 100% in the Volta and Oti regions). Fewer facilities had chest tube insertion set (11%) and minor surgical kit (26%).

Skin disinfectant was available in 45% of facilities offering minor surgery, while 24% had Lidocaine 1% or 2% injection. The mean proportion of medicines and commodities items at facilities providing minor surgery was 34% (ranging from 10% in Western North to 57% in the Ashanti region). Availability of Lidocaine 1% or 2% injection was above 84% in all hospitals and 31% in polyclinics. Only 7% of facilities offering minor surgery had all essential equipment and commodities assessed available.

General surgery availability

Major surgical procedures are expected to be provided mainly in hospitals across the country. Overall, 16% of facilities surveyed (ranging from 4% in the Savannah region to 39% in the Greater Accra region) reported providing any major surgical procedures, though this percentage included lower-level facilities not expected to provide the service. Among the major surgeries provided, laparotomy is the most widely available (14%), and cataract surgery, open reduction and fixation for fracture, and placement of external fixator are the least available (3% each). Availability of any major surgery services as well as availability of specific major surgeries vary by region, managing authority and facility type. Of hospitals expected to provide this service, availability was above 85%, with some polyclinics (33%) providing major surgeries. Over 72% of hospitals surveyed provide laparotomy services, with open reduction and fixation for fracture being the procedure provided in the least at the regional hospital level.

Table 3.4.2.1 – General Surgery Availability

	Any major surgical procedures	Amputation	Appendectomy	Cataract surgery	Escharotomy/fasciotomy/contracture release	Drainage of septic arthritis	Hernia repair	Irrigation and debridement of open fractures	Laparotomy	Open reduction and fixation for fracture	Placement of external fixator	Skin grafting	Tracheostomy	n
National	16%	6%	13%	3%	4%	7%	13%	7%	14%	3%	3%	4%	4%	1,421
Region														
Ahafo	14%	6%	14%	4%	12%	7%	14%	8%	14%	2%	2%	2%	7%	26
Ashanti	28%	9%	21%	3%	7%	14%	22%	13%	23%	5%	7%	5%	11%	173
Bono	13%	11%	12%	8%	9%	11%	12%	12%	13%	2%	7%	10%	9%	72
Bono East	18%	8%	17%	3%	7%	12%	17%	17%	16%	9%	5%	10%	8%	58
Central	9%	2%	6%	2%	2%	2%	6%	2%	8%	1%	0%	2%	0%	130
Eastern	10%	3%	7%	2%	2%	3%	8%	3%	8%	3%	2%	3%	1%	150
Greater Accra	39%	11%	31%	3%	8%	14%	32%	14%	36%	8%	7%	6%	6%	206
North East	20%	20%	20%	3%	3%	2%	20%	2%	3%	1%	0%	2%	2%	30
Northern	11%	3%	5%	1%	2%	3%	7%	3%	9%	1%	1%	1%	2%	87
Oti	7%	1%	6%	2%	2%	1%	6%	2%	7%	1%	0%	0%	1%	45
Savannah	4%	3%	4%	1%	3%	2%	4%	3%	4%	1%	0%	1%	0%	40
Upper East	9%	4%	7%	3%	2%	5%	8%	4%	9%	2%	1%	2%	1%	75
Upper West	6%	4%	5%	4%	4%	4%	6%	5%	6%	3%	2%	4%	4%	78
Volta	9%	4%	6%	4%	1%	1%	8%	3%	9%	1%	0%	3%	1%	96
Western	11%	5%	8%	3%	2%	6%	8%	4%	9%	2%	1%	4%	0%	102
Western North	5%	4%	5%	2%	2%	4%	5%	4%	5%	0%	0%	0%	1%	53
Managing authority														
Government/public	6%	3%	5%	2%	1%	2%	5%	2%	5%	1%	1%	1%	1%	971
NGO/private	39%	11%	28%	2%	7%	14%	30%	13%	34%	6%	5%	6%	6%	319
Mission/faith-based	43%	21%	37%	21%	19%	27%	38%	30%	39%	10%	18%	19%	17%	108
Quasi government/university	24%	23%	23%	5%	20%	23%	24%	23%	24%	23%	23%	18%	20%	23
Facility type														
Regional hospital	100%	81%	94%	81%	63%	75%	94%	88%	100%	43%	50%	69%	50%	16
District hospital	96%	55%	86%	38%	37%	51%	90%	55%	89%	20%	29%	30%	34%	149
Other general hospital	85%	28%	65%	9%	19%	34%	69%	36%	72%	19%	15%	19%	17%	132
Poly clinic	33%	7%	15%	1%	8%	7%	18%	8%	20%	5%	0%	4%	5%	69
Health centre	1%	0%	1%	0%	0%	0%	1%	0%	1%	0%	0%	0%	0%	452

Clinic/maternity home	11%	1%	7%	0%	1%	3%	7%	1%	10%	0%	0%	1%	0%	262
CHPS	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	341
Expected facilities														
NCD diagnosis / surgery	84%	35%	68%	17%	23%	38%	71%	40%	73%	19%	18%	21%	22%	366
Non-NCD diagnosis / non-surgery	3%	0%	2%	0%	0%	1%	2%	0%	3%	0%	0%	0%	0%	1,055
Expected facilities														
CEmONC	84%	35%	68%	17%	23%	38%	71%	40%	73%	19%	18%	21%	22%	366
Non-CEmONC	3%	0%	2%	0%	0%	1%	2%	0%	3%	0%	0%	0%	0%	1,055
Expected facilities														
Non-BEmONC lower -level	65%	27%	52%	13%	18%	29%	55%	31%	57%	15%	14%	17%	17%	427
BEmONC lower -level	3%	0%	2%	0%	0%	1%	2%	0%	3%	0%	0%	0%	0%	994
Expected facilities														
EmONC	16%	6%	13%	3%	4%	7%	13%	7%	14%	3%	3%	4%	4%	1,421

Obstetric, gynaecological and family planning surgery availability (refer to table 3.4.2.1)

Among the obstetric, gynaecological and family planning surgery services, facilities providing vasectomy services are the least available (5%), followed by tubal ligation (11%) and caesarean section (16%), whilst more facilities are likely to provide services for dilatation and curettage or vacuum aspiration (40%). Caesarean section services which are commonly provided by hospitals are available in over 86% of hospitals and in 33% of polyclinics. There also exists a wide regional variation in the availability of caesarean section services, ranging from 4% (n=40) in the Savannah region to 41% (n=206) in the Greater Accra region. Likewise, services for vacuum aspiration which is expected to be provided in facilities with trained midwives and doctors are available in over 89% of hospitals, 85% of polyclinics and 52% of health centers. 41% of clinics/maternity homes also provide this service.

Essential surgery readiness (refer to tables 3.4.2.3)

Among facilities offering major surgery (n=334), the availability of guidelines and safety checklists is low. About 19% of the facilities nationwide had the Integrated Management for Emergency and Surgical Care (IMEESC) guidelines and 37% had the WHO surgical safety checklist available. In terms of staff training in relevant surgical areas, 80% of facilities offering major surgery had staff who had received training in general anaesthesia in the two years preceding the survey. However, fewer facilities had staff who had recently received training on how to perform Bellwether procedures (62%) as well as in IMEESC (52%). Whilst staff receiving training in general anaesthesia was above 78% of hospitals, that of staff who had received training in the Bellwether procedures was in only 55%-87% of hospitals.

Over 80% of facilities offering major surgery had specific essential equipment available to provide services. Equipment whose availability was in less than 70% of facilities offering major surgery included paediatric intubation equipment (1%), cricothyroidotomy set (37%), defibrillator (42%), capnograph (49%), adult intubation tube (50%), resuscitation bag (65%) and cardiac monitor (67%). Equipment availability varies across regions and types of facilities, with availability higher in hospitals. Interestingly, only Ashanti and Western regions reported having paediatric intubation equipment, with no regional hospital reporting availability.

Except for Bupivacaine (injectable), Inhalation anaesthetic, Lidocaine 5%, Suxamethonium, and Thiopental or propofol, all other essential medicines and commodities were available in over 80% of facilities offering major surgery across the country. No facility surveyed had all the items requested in the questionnaire.

Interestingly, the WHO surgical safety checklist was equally available in health centers as in hospitals (district and regional i.e. about 52%), and less available in other general hospitals (32% and polyclinics (25%). Only Bono, Bono East, North East and Oti regions had more than 50% of their facilities using the WHO surgical safety checklist.

Essential surgery auxiliary indicators (refer to tables 3.4.2.4)

No facility in the Ahafo region uses nitrous oxide. The number of facilities with a separate room for pre-operative care (67%), as well as a separate recovery room (80%), was less than desired amongst facilities offering major surgery, with the least availability in the North East region and highest availability amongst facilities in the Bono region. This suggests that patients for surgery may not be receiving adequate pre-operative preparations and post-operative care. This negatively impacts Infection Prevention and Control practices, the psycho-emotional status for the pre-operative patient as well as close monitoring of the post-operative patient. Most of the facilities surveyed had a marked point for surgical infection preventive practices, a scrub site with running water, a defined closed space for storage of sterile items, as well as Midazolam injection.

Blood transfusion service availability (refer to tables 3.4.4.1)

Overall, 18% of facilities surveyed provided blood transfusion services (ranging from 6% in the Savannah region to 45% in the Greater Accra region. Service availability was above 91% of hospitals where the service is most expected to be provided, and 55% of polyclinics (also expected to provide the service). Some clinics and maternity homes have personnel trained to provide this service, but the service is hardly expected at the health centers and CHPS level.

Table 3.4.4.1 - Blood transfusion service availability

.	Blood transfusion services	n
National	18%	1,421
Region		
Ahafo	14%	26
Ashanti	30%	173
Bono	11%	72
Bono East	20%	58
Central	9%	130
Eastern	9%	150
Greater Accra	45%	206
North East	22%	30
Northern	11%	87
Oti	10%	45
Savannah	6%	40
Upper East	10%	75
Upper West	7%	78
Volta	9%	96
Western	12%	102
Western North	10%	53
Managing authority		
Government/public	7%	971
NGO/private	43%	319
Mission/faith-based	43%	108

Quasi government/university	33%	23
Facility type		
Regional hospital	100%	16
District hospital	99%	149
Other general hospital	91%	132
Poly clinic	55%	69
Health centre	2%	452
Clinic/maternity home	13%	262
CHPS	0%	341
Expected facilities		
NCD diagnosis / surgery	91%	366
Non-NCD diagnosis / non-surgery	4%	1,055
Expected facilities		
CEmONC	91%	366
Non-CEmONC	4%	1,055
Expected facilities		
Non-BEmONC lower-level	71%	427
BEmONC lower-level	4%	994
Expected facilities		
EmONC	18%	1,421

Blood transfusion service readiness (refer to table 3.4.4.2)

For those facilities offering blood transfusion services, only 30% had guidelines on the appropriate use of blood and safe blood transfusion whilst 57% had staff who had received training in the past two years in appropriate use of blood and safe blood transfusion (both indicators most likely to be found in government facilities providing the service). Again, only 36% of facilities offering blood transfusion service had a functional blood storage refrigerator and temperature in the required range over the last 30 days (mostly found amongst government hospitals and polyclinics).

Whereas 65% of facilities offering blood transfusion service had blood typing capacity (available in over 61% of hospitals and 67% of polyclinics), fewer of these facilities i.e. 31% had cross-match testing capacity. However, 60% of the facilities (ranges from 22% in the Upper East region to 92% in the Bono region) had blood supply sufficiency while 72% (ranging from 48% in the Northern region to 100% in Oti, North East and Ahafo regions) had blood supply safety.

Only 4% of facilities had all items assessed i.e. guidelines and staff trained, equipment, diagnostics and medicines and commodities, of which 19% was from regional hospitals and 9% from district hospitals. Overall service readiness in facilities offering blood transfusion service is therefore extremely low, considering this is an essential service, especially in all hospitals.

Oxygen availability (in surgical service site) (refer to table 3.4.5.1)

Among facilities offering surgical services, 24% provide oxygen in the surgery service area. Availability is however high (>89%) amongst hospitals where surgical service is expected to be provided, but low at the polyclinic level (34%). The very low availability amongst CHPS and health centers may be because only minor surgical services unlikely to require oxygen supplementation is provided at this level.

Oxygen readiness (in surgical service site) – (refer to table 3.4.5.2)

In facilities offering surgical and oxygen services, 70% had oxygen available and 92% had reliable oxygen services. Low availability of oxygen services below the national average amongst facilities

in six (6) of the 16 regions is of serious concern, considering the huge deployment of oxygen delivery devices nationwide during the COVID-19 outbreak in 2020/2021. Only 64% of facilities indicated they had oxygen services that were reliable, though this was amongst 43% of regional hospitals, 59% of polyclinics, 65% of other general hospitals and 56% of polyclinics. These findings might suggest that the oxygen gap is huge and that the deployment in 2020/2021 just scrapped the surface.

Emergency service availability

Two out of three facilities (65%) reported providing any emergency services, with all government hospitals (district and regional) recording 100% availability, and polyclinics recording 98% availability. Availability is however low in health centers and CHPS (76% and 51% respectively) although they are also expected to provide emergency service. Availability of facilities providing emergency service is less than 50% in Ahafo, Eastern, and Oti regions (26%, 31% and 27% respectively). Only 19% of facilities had a 24-hour dedicated emergency unit, though this was found in all regional hospitals and 94% of district hospitals. Although most government hospitals had a 24-hour medical and nursing staff onsite in the emergency unit (81% of regional hospitals and 64% of district hospitals), the availability of a dedicated surgeon and anaesthetist was low (57% for regional hospitals and 25% for district hospitals), indicating a probable paucity of skilled personnel in these facilities.

The 24-hour services for rapid access to emergency transport for referral out, radiological services, laboratory services and doctor or nurse to accompany emergency patients during referral were also low (15%, 4%, 21% and 13% respectively). However, 24-hour pharmacy services were relatively high (47%), with over 80% availability in hospitals and 91% availability in polyclinics. Limited access to 24-hour radiological services across the various levels of care (50% in regional hospitals, 42% in district hospitals, 11% in other general hospitals and 4% in polyclinics) depicts the limitations clinicians face in managing traumatic injuries especially from road traffic accidents etc. in the evenings and during night shifts.

Table 3.5.1.1. – Emergency Service Availability

	Any emergency services	A 24-hour dedicated emergency unit	24-hour medical and nursing staff onsite in emergency unit	24-hour availability of surgeon and anaesthetist	24-hour rapid access to emergency transport for referral out	24-hour pharmacy services	24-hour radiological services	24-hour laboratory services	Doctor or nurse to accompany emergency patients during referral transport	n
National	65%	19%	13%	4%	15%	47%	4%	21%	13%	1,421
Region										
Ahafo	26%	23%	8%	2%	3%	24%	6%	19%	4%	26
Ashanti	55%	31%	19%	7%	16%	52%	5%	39%	10%	173
Bono	87%	29%	10%	3%	21%	74%	2%	30%	15%	72
Bono East	67%	21%	20%	5%	36%	62%	6%	39%	12%	58
Central	75%	15%	9%	0%	10%	49%	3%	11%	8%	130
Eastern	31%	8%	9%	2%	9%	18%	3%	10%	8%	150
Greater Accra	83%	41%	28%	10%	26%	60%	4%	37%	34%	206
North East	90%	25%	25%	2%	4%	69%	3%	25%	2%	30
Northern	73%	9%	17%	1%	20%	60%	0%	15%	15%	87

Oti	27%	5%	5%	1%	4%	14%	2%	15%	4%	45
Savannah	78%	7%	7%	1%	11%	56%	3%	14%	11%	40
Upper East	78%	20%	7%	2%	8%	46%	2%	13%	15%	75
Upper West	61%	9%	16%	4%	19%	43%	2%	8%	2%	78
Volta	69%	9%	3%	1%	8%	48%	5%	15%	6%	96
Western	76%	12%	3%	4%	10%	55%	7%	19%	10%	102
Western North	58%	9%	7%	1%	9%	23%	3%	14%	10%	53
Managing authority										
Government/public	60%	10%	7%	1%	10%	42%	2%	11%	8%	971
NGO/private	72%	37%	24%	7%	23%	58%	3%	40%	26%	319
Mission/faith-based	89%	45%	29%	16%	27%	73%	18%	61%	14%	108
Quasi government/university	72%	16%	47%	23%	44%	39%	20%	39%	33%	23
Facility type										
Regional hospital	100%	100%	81%	57%	38%	100%	50%	100%	19%	16
District hospital	100%	94%	64%	25%	36%	97%	42%	94%	17%	149
Other general hospital	89%	58%	43%	21%	38%	80%	11%	68%	34%	132
Poly clinic	98%	51%	40%	5%	21%	91%	4%	67%	30%	69
Health centre	76%	17%	9%	0%	12%	60%	0%	21%	12%	452
Clinic/maternity home	64%	22%	14%	1%	15%	42%	2%	25%	20%	262
CHPS	51%	1%	2%	0%	8%	31%	0%	1%	5%	341
Expected facilities										
NCD diagnosis / surgery	93%	68%	49%	21%	36%	86%	20%	75%	29%	366
Non-NCD diagnosis / non-surgery	60%	9%	6%	0%	11%	40%	0%	11%	10%	1,055
Expected facilities										
CEmONC	93%	68%	49%	21%	36%	86%	20%	75%	29%	366
Non-CEmONC	60%	9%	6%	0%	11%	40%	0%	11%	10%	1,055
Expected facilities										
Non-BEmONC lower-level	82%	55%	39%	16%	31%	75%	15%	61%	27%	427
BEmONC lower-level	61%	9%	6%	0%	10%	40%	0%	11%	9%	994
Expected facilities										
EmONC	65%	19%	13%	4%	15%	47%	4%	21%	13%	1,421

Emergency unit general readiness (refer to table 3.5.1.2)

Availability of guidelines amongst facilities offering emergency services was generally low, with only 19% having protocols for the initial approach to ABCs, 6% with trauma care checklist and 4% with a standardized emergency unit clinical form. The low availability is reflected even at the various hospitals and polyclinics. Only 32% of facilities surveyed had staff who had received training on emergency services in the past two years preceding the survey, with a higher proportion found amongst hospitals (>63%) and polyclinics (56%). Basic equipment such as a thermometer, blood pressure apparatus and stethoscope are expected to be available in all facilities offering emergency services across the country. However, the study found that the percentage of facilities offering emergency services with this equipment was less than 100%, notably in relation to child and infant weighing scales (58% and 57% respectively).

Specialized equipment like otoscopes, ophthalmoscopes, examination lights and intubation equipment, though low in availability nationwide and across various levels of care, were more readily available in non-government hospitals than in government hospitals and polyclinics. Availability of diagnostics is however similar across all hospital types, averaging a little over two-thirds of hospitals surveyed. Availability of medicines and commodities was similarly low across all

facilities surveyed, with lower-than-expected availability of emergency medicines like adrenaline, atropine, calcium gluconate injection, and sodium bicarbonate injection even at the regional hospitals (81%, 81%, 57% and 37% respectively). No single facility had all items assessed under emergency unit general readiness.

Emergency unit auxiliary indicators – Triage (refer to table 3.5.1.4)

About a third (34%) of the facilities offering emergency services have a formal triage system. Even fewer facilities had a structured triage tool (13%) or staff who have recently received training in using the triage tool (28%). The availability of a formal triage system is however high amongst government hospitals and polyclinics, and low in the lower-level facilities (health centre and CHPS) where a lot of capacity will need to be built.

Emergency unit auxiliary indicators - Infection prevention and control (refer to table 3.5.1.5)

Among the facilities offering emergency services, 84% or more of them had IPC items such as latex gloves, single-use standard disposable auto-disable syringes, environmental disinfectant and appropriate storage of sharps waste and no non-protected sharps observed. However, appropriate storage of non-sharp infectious waste and appropriate storage of biological waste is available in less than 50% of facilities offering emergency services. Facilities in the Ashanti, Bono East, Oti and Savannah regions recorded availability of appropriate storage of sharp waste below the national average. Again, appropriate storage of non-sharp infectious waste and biological waste was low across all facilities surveyed, with more non-government facilities having better storage practices than government facilities. This shows a critical need for the government to provide for, and improve non-infectious waste and biological waste disposal practices in government health facilities, and the critical need for incinerators to encourage on-site waste disposal in health facilities.

Vital signs measurement readiness (refer to table 3.5.2.1)

Nationally, facilities offering emergency services had available equipment for the measurement of vital signs during emergencies. Eighty-four percent of facilities offering emergency services had all three essential equipment (stethoscope, blood pressure apparatus and thermometer). However, there is considerable variation in the availability of equipment across regions. The availability of all three essential equipment ranges from 44% in the Oti region to 95% in the Eastern and North East regions. There was high availability of all essential equipment amongst district hospitals (94%), and less availability amongst CHPS facilities (76%).

Airway intervention readiness (refer to table 3.5.2.2)

Equipment for airway interventions for emergency services was limited. Except for suction apparatus with a suction catheter which was available in 37% of facilities offering emergency services, facilities with availability of the other airway support equipment were low nationally i.e. cricothyroidotomy or tracheostomy set (6%), oropharyngeal airway for adult (15%) and oropharyngeal airway for paediatrics (12%). Nationally, only 4% of facilities offering emergency services have available all the essential equipment for airway intervention, of which 12% were amongst regional hospitals, 20% amongst district hospitals and 17% amongst other hospitals. This suggests a tragic weakness in our emergency preparedness to support compromised airway systems in our emergency services, and a critical need to consider targeted training and retraining in this area.

Breathing intervention readiness (refer to table 3.5.2.3)

Aside from pulse oximeters (51%), all other essential equipment for breathing interventions such as nebulisers and attachments and resuscitation bags and masks (adult, paediatric and neonatal) were available in less than 47% of facilities surveyed (n=1,048). Although the availability of all four equipment was above 69% in hospitals, it is worrying that pulse oximeters and nebulizers can hardly be found at the CHPS level, with just about 50% availability amongst health centers which are first points of care in most communities. Also, continuous positive airway pressure (CPAP) equipment (6%) and chest tubes with insertion set and underwater seal bottle (9%) were relatively unavailable in most facilities, with availability at 38% and 44% respectively amongst regional hospitals and 18% and 38% respectively amongst district hospitals. This again is worrying, considering the significant input made by the government and the health service in improving access to airway interventions over the past two years. Approximately one in four regional hospitals and one in ten district hospitals surveyed had all breathing intervention equipment assessed.

Circulation intervention readiness (refer to table 3.5.2.4)

Circulation intervention equipment, medicines and commodities during emergencies are relatively lacking in facilities offering emergency services. Less than 50% of facilities had tourniquet (46%) or doppler (38%), with only 4% of facilities having pelvic binder available (4%). Safe blood transfusion was available in 15% of emergency facilities nationwide. Only 2% of facilities (n=1,048) had available all essential equipment and commodities for circulation intervention, with 6% availability (n=16) among regional hospitals and 10% availability (n=148) among district hospitals. These appear to be concentrated in the Ahafo and Ashanti regions.

Cardiac intervention readiness (refer to table 3.5.2.5)

Essential equipment for cardiac intervention during emergencies was not available in most facilities. Availability of an electrocardiograph (ECG) machine with leads, 24-hour availability of staff able to read ECG as well as availability of cardiac monitor with electrodes were just about 15% of facilities. Availability was however above 40% in hospitals where this equipment is expected to be found. Similarly, there was low availability of a defibrillator among hospitals, ranging from 35% of general hospitals to 43% of district hospitals and 69% of regional hospitals. Although the availability of lifesaving medicines (adrenaline and aspirin at 33% and 30% respectively) was better, they are considered low as a national average, considering that the availability of such essential medicines in less than 90% of hospitals surveyed. Among the medicines, streptokinase is the least available (2%), with no regional hospital stocking this lifesaving medicine. No facility nationally had all the cardiac intervention equipment and medicines assessed available on the day of the survey.

Unconscious patient intervention readiness (refer to table 3.5.2.6)

Overall, 65% of the facilities offering emergency services reported providing blood glucose tests. Medicine and commodities availability is much lower, with 32% of facilities having insulin, 28% having glucose 50% injection and 7% having lumbar puncture kit. Glucometer and 50% glucose are basic emergency resuscitation logistics that are expected at all levels of care delivery, notably in health centers and above. It is therefore surprising that availability averaged less than 90% among hospitals. The national low availability of lumbar puncture kits in less than 7% of facilities is also a source of concern, especially considering that only 3 in 10 hospitals are likely to have it.

Seizure intervention readiness (refer to table 3.5.2.7)

Magnesium sulphate injection was available in 33% of emergency facilities, ranging from 3% in the North East region to 68% in the Ahafo region. Readiness with naloxone injection nationwide is 10% of facilities surveyed. Only 50% of regional hospitals reported readiness for naloxone injection. Only nine percent (9%) of facilities with emergency services had all medicines/commodities items available i.e. both magnesium sulphate and naloxone injections.

Sepsis intervention readiness (refer to table 3.5.2.8)

Although 50% of facilities with emergency services had IV antibiotics for sepsis, only 8% had vasopressors. Within the regions, North East, Savannah and Western North reported only 1% of their respective facilities offering services with vasopressors. While all regional hospitals reported offering services with IV antibiotics for sepsis, only 63% of the regional hospitals reported offering services with vasopressors.

Injury intervention readiness (refer to table 3.5.2.9)

Except for tetanus toxoid (65%) and antibiotics for open fractures (50%), essential medicines such as opiate analgesic and rabies vaccine were not readily available in facilities offering emergency services. Availability of rabies vaccine (6%) is surprisingly low across all levels of care, with only 3% of facilities having all the medicines and commodities items.

Other intervention readiness (refer to table 3.5.2.10)

Equipment (patient restraint and vacuum extractor) availability for other interventions in facilities offering emergency services is low (8% and 31% respectively) compared to the availability of medicines and commodities (medicines for agitation, medicines for sedation and oxytocin at 50%, 17% and 47% respectively). Facilities with oxytocin availability in the emergency area were unsurprisingly low, most likely because most maternal emergencies where oxytocin might be needed do not present to the main emergency units but are most likely to present at obstetric emergency units which are separate units from medical/surgical emergency units. Very few facilities (4%) had all the equipment and medicines/commodities items for other interventions.

Oxygen service availability (in emergency service site) (refer to table 3.5.3.1)

Forty-five percent (45%) of facilities offering emergency services never provide oxygen in the emergency service area. Over 98% of hospitals had ever provided oxygen in the emergency area, compared to a low of 2% amongst CHPS. Since some CHPS compounds provide delivery services and emergency care, this low provision of oxygen at this level is of concern.

Oxygen service readiness (in emergency service site) (refer to table 3.5.3.2)

Among the facilities offering emergency and oxygen services (n=585), 63% had oxygen available at the time of the survey, 87% had reliable oxygen services, and 84% had pulse oximeters. Oxygen availability was above 71% amongst the hospitals, but reliable oxygen delivery amongst hospitals was lowest at the regional hospital level.

Palliative Care Service Availability

Ten percent of all facilities surveyed offer palliative care services, with regional availability ranging from 1% in the Savannah region to 22% in Greater Accra. With respect to facility type, availability of palliative care was low at the lower levels of healthcare delivery and averaged 7-in-10 hospitals at the regional level and 5-in-10 hospitals at the district hospital level, and even lower at 3-in-10

amongst the non-government hospitals. Very few facilities provided the various specific types of palliative care services i.e. inpatient care (5%), outpatient care (8%), home-based care (4%) and linkages with other organizations (2%).

From the national perspective, outpatient palliative care (8%) seems to be more available than inpatient palliative care (5%). This situation is however reversed at the higher level facilities, with higher inpatient palliative care availability at regional and district hospitals (63% and 43%) than outpatient palliative care (57% and 41%).

Table 3.6.1.1 – Palliative Care Availability

.	Any palliative care services	Inpatient palliative care	Outpatient palliative care	Home-based palliative care	Linkages with other organizations palliative care	other for n
National	10%	5%	8%	4%	2%	1,421
Region						
Ahafo	6%	4%	6%	0%	1%	26
Ashanti	12%	8%	11%	6%	5%	173
Bono	9%	9%	2%	7%	0%	72
Bono East	9%	4%	9%	1%	2%	58
Central	9%	3%	6%	5%	2%	130
Eastern	4%	2%	2%	1%	1%	150
Greater Accra	22%	15%	17%	8%	3%	206
North East	3%	3%	3%	0%	0%	30
Northern	4%	1%	4%	0%	1%	87
Oti	13%	2%	7%	6%	4%	45
Savannah	1%	1%	1%	0%	0%	40
Upper East	20%	5%	19%	3%	1%	75
Upper West	3%	3%	3%	1%	2%	78
Volta	8%	2%	5%	2%	0%	96
Western	9%	4%	7%	4%	5%	102
Western North	5%	2%	4%	3%	2%	53
Managing authority						
Government/public	6%	2%	5%	2%	1%	971
NGO/private	16%	11%	13%	7%	4%	319
Mission/faith-based	26%	21%	18%	9%	5%	108
Quasi government/university	18%	15%	18%	3%	5%	23
Facility type						
Regional hospital	69%	63%	57%	12%	12%	16
District hospital	52%	43%	41%	21%	13%	149
Other general hospital	30%	22%	24%	11%	6%	132
Poly clinic	12%	6%	10%	5%	1%	69
Health centre	10%	1%	8%	5%	3%	452
Clinic/maternity home	8%	4%	6%	3%	1%	262
CHPS	2%	0%	1%	0%	0%	341
Expected facilities						
NCD diagnosis / surgery	35%	27%	28%	13%	8%	366
Non-NCD diagnosis / non-surgery	5%	1%	4%	2%	1%	1,055
Expected facilities						
CEmONC	35%	27%	28%	13%	8%	366
Non-CEmONC	5%	1%	4%	2%	1%	1,055
Expected facilities						
Non-BEmONC lower-level	28%	21%	22%	11%	6%	427
BEmONC lower-level	5%	1%	4%	2%	1%	994
Expected facilities						
EmONC	10%	5%	8%	4%	2%	1,421

The report on the availability of the services may be influenced significantly by the respondents' definition/understanding of palliative care services, whether they considered palliative care as basic or specialist care. The WHO defines Palliative care as an approach to care that seeks to improve the quality of life of patients with life-limiting/life-threatening illnesses by preventing and relieving the distress and suffering these illnesses cause to the patients and family, be it pain or other physical symptoms, psychosocial or spiritual, from diagnosis of the illness through to end-of-life and bereavement for the family. It includes many interventions provided as routine medical care for certain patients such as those with HIV/AIDS, sickle cell disease or patients with cancer. Unfortunately, if palliative care is otherwise defined, facilities would under-report their activities, which may be the case in this aspect. This is demonstrated by the data on Palliative Care in HIV/AIDS Care and Support Services (CSS) availability (table 3.2.4.1). Here, the proportion of facilities providing palliative care as part of HIV/AIDS CSS was 13%, higher than the 10% under Palliative Care general availability. There was a very significant change in percentages for the facilities where palliative care was available, such that 100% of regional and district hospitals provide palliative care to HIV patients (cf 69%, 52%) and 3% of CHPS compounds. This trend is similar for the regional and management stratifiers, which all showed a markedly higher response compared to the general.

Home-based palliative care is poorly available in Ghana, with the highest availability (21%) in district hospitals. While several regional hospitals provide outpatient and inpatient palliative care services, only 12% of regional hospitals extend palliative care to the homes. None of the CHPS compounds reported home-based palliative care at all. This is surprising since existing national policies on home-based care and their job description require Community Health Nurses (CHNs) to visit the homes of special groups of people such as pregnant women and children, the elderly persons with chronic illnesses and People Living with HIV/AIDS (PLWHA). However, since these have not been defined as being "palliative care cases" the respondents would not respond as such.

The National Health Policy (2020) in Section 3.1, while recognizing that promotive, palliative and rehabilitative care need to be provided across the life course at all levels of the health system, notes that little has been done in the area. This survey demonstrated the gaps in palliative care service availability at the various levels of care across the country as well as the need for a clear definition of palliative care and its components to guide service providers and policymakers.

Palliative care readiness (refer to table 3.6.1.2)

Guidelines for palliative care were available in 15% of facilities offering palliative care (ranging from 0% in Bono, Northern, Savannah, Upper East and Western North regions to 51% in Bono East and Upper West regions). However, one-third (33%) of the facilities offering palliative care services had staff having received training in palliative care in the two years preceding the survey.

There is variability in the availability of specific medicines and commodities for palliative care. While 92% of facilities providing palliative care had paracetamol or ibuprofen, only 18% had oral nutritional supplements available.

Averagely, 49% of tracer items for palliative care were available in facilities offering the service, while only 2% of facilities offering palliative care had all the tracer items (staff, guidelines, medicines and commodities) available.

Country-wide, there are no national guidelines specifically for palliative care, although palliative care is included in the guidelines for the provision of supportive care for PLWHA. Guidelines for palliative care from other sources were available in only 15% of facilities.

Rehabilitation Care

Generally, rehabilitative care was low nationwide, available in only 5% of facilities surveyed. The low availability cuts across the managing authority, be it government, private or faith-based facilities. Only five (5) regions i.e. Greater Accra, Bono, Bono East, Ahafo and Upper West regions had service availability (i.e. 14%, 9%, 9%, 6% and 6% respectively) above the national average. When the data is disaggregated to facilities expected to provide the service (i.e. hospitals), availability was comparatively high amongst regional hospitals (94%) as against district hospitals (44%) and other general hospitals (19%).

Rehabilitative services are specialised services and should be assessed in facilities with the capacity to offer such services, currently at the level of a hospital. There is a drive to strengthen this service across district hospitals and equip polyclinics with personnel and logistics to provide the same, as a way of increasing access nationwide.

Faith-based hospitals and Quasi government facilities are more likely to be hospitals, and therefore more likely to offer rehabilitative services, accounting for the higher availability in these facilities.

Table 3.6.2.1 – Rehabilitative Care Availability

.	Rehabilitative care or physiotherapy services	n
National	5%	1,421
Region		
Ahafo	6%	26
Ashanti	5%	173
Bono	9%	72
Bono East	9%	58
Central	2%	130
Eastern	2%	150
Greater Accra	14%	206
North East	1%	30
Northern	1%	87
Oti	2%	45
Savannah	4%	40
Upper East	5%	75
Upper West	6%	78
Volta	2%	96
Western	4%	102

Western North	4%	53
Managing authority		
Government/public	3%	971
NGO/private	8%	319
Mission/faith-based	21%	108
Quasi government/university	20%	23
Facility type		
Regional hospital	94%	16
District hospital	44%	149
Other general hospital	19%	132
Poly clinic	4%	69
Health centre	1%	452
Clinic/maternity home	4%	262
CHPS	0%	341
Expected facilities		
NCD diagnosis / surgery	26%	366
Non-NCD diagnosis / non-surgery	1%	1,055
Expected facilities		
CEmONC	26%	366
Non-CEmONC	1%	1,055
Expected facilities		
Non-BEmONC lower-level	20%	427
BEmONC lower-level	1%	994
Expected facilities		
EmONC	5%	1,421

Rehabilitative care readiness (refer to table 3.6.2.2)

In terms of the availability of guidelines and trained staff, 31% of facilities providing rehabilitative care services had guidelines for rehabilitation care and 60% had staff who had received training in rehabilitation care in the two years preceding the study.

Equipment availability in facilities offering rehabilitative care varies, with the least available equipment being audiometric equipment and booth (20%). Most facilities (85%) providing services had a dedicated space for rehabilitation therapy. Other equipment available in at least 50% of facilities providing rehabilitative care include upper limb exercise equipment (51%), patient education materials (54%), measuring tape/goniometer (67%), and walking frames/crutches/walking sticks (72%). Parallel bars, height adjustable treatment bed/plinth, casting and splinting kite and audiometric equipment and booth, and paediatric rehabilitation equipment were available in less

than 50% of facilities providing rehabilitative care. When stratified by facility type and managing authority the rates are generally reflective of the situation on the ground.

Medicines and commodities for rehabilitative care were available in 56% of facilities providing rehabilitative care. Overall, only 6% of facilities offering rehabilitation care had all tracer items available. There are no national guidelines to guide the practice of rehabilitative services in Ghana. Almost all guidelines in use have been adapted from other jurisdictions.

Non-Communicable Diseases (NCDs)

Availability of specific services, Noncommunicable diseases

Overall, 53% of facilities offer services for chronic NCDs, with cardiovascular and diabetes services being the most offered services at 46% and 45%. Only 17% of surveyed facilities offer any type of cancer service. The Greater Accra region has the highest percentage of facilities offering chronic NCDs services at 91%, while the Eastern and Upper West regions have the lowest at 29%. Both prostate and colorectal cancer services were unavailable in the Northern, Western North and Savannah regions.

Amongst CHPS Compounds, 18% offer chronic non-communicable diseases services which is low, considering the call for the implementation of wellness clinic services at all levels of health service delivery in the country.

The low availability of diabetes services (45% of facilities surveyed) may be because CHPS compounds and Health centres are not mandated to diagnose and manage diabetes. Among facilities expected to offer diabetes services, 98% offer these services. Greater Accra region has the highest percentage of facilities (86%) providing any diabetes service while Upper West region has the lowest percentage in terms of facilities (10%). Many of the regions in the Northern part of the country had less than 40% of their facilities providing diabetes services which is of concern.

Although health centres, maternity homes and CHPS are not mandated to provide diabetes services, 60% of Health centres, 58% of maternity homes and 4% of CHPS provide diabetes services. This may indicate a demand for these services at the lower levels rather than non-compliance with policy directives.

Table 1.2.2.4 – Non Communicable Diseases

	Any services for chronic noncommunicable diseases	Cardiovascular disease services	Diabetes services	Chronic respiratory disease services	Any cancer services	Any services for cervical cancer	Any services for breast cancer	Any services for colorectal cancer	Any services for prostate cancer	n
National	53%	46%	45%	39%	17%	7%	15%	1%	5%	1,421
Region										
Ahafo	56%	56%	47%	47%	26%	6%	23%	1%	13%	26
Ashanti	70%	61%	66%	58%	4%	3%	4%	2%	2%	173
Bono	56%	56%	56%	53%	28%	10%	27%	1%	10%	72
Bono East	48%	44%	43%	45%	21%	10%	16%	0%	7%	58
Central	51%	40%	44%	32%	14%	3%	14%	0%	3%	130
Eastern	29%	23%	27%	20%	10%	4%	9%	0%	2%	150
Greater Accra	91%	86%	86%	79%	38%	28%	33%	6%	22%	206
North East	65%	61%	45%	45%	19%	2%	19%	1%	2%	30
Northern	59%	42%	36%	26%	18%	3%	15%	0%	0%	87
Oti	31%	24%	25%	14%	4%	2%	3%	1%	2%	45
Savannah	46%	35%	29%	24%	14%	2%	6%	0%	0%	40
Upper East	47%	41%	32%	27%	17%	8%	15%	0%	4%	75
Upper West	29%	23%	10%	15%	27%	3%	23%	0%	1%	78
Volta	35%	32%	34%	26%	3%	1%	2%	0%	1%	96
Western	41%	36%	35%	34%	18%	5%	17%	1%	4%	102
Western North	40%	28%	37%	25%	8%	3%	7%	0%	0%	53
Managing authority										
Government/public	38%	31%	30%	24%	14%	4%	12%	0%	2%	971
NGO/private	83%	77%	78%	71%	24%	14%	20%	2%	12%	319

Mission/faith-based	89%	82%	81%	77%	26%	18%	22%	3%	14%	108
Quasi government/university	92%	88%	88%	88%	47%	30%	47%	15%	29%	23
Facility type										
Regional hospital	100%	100%	100%	94%	68%	62%	68%	37%	50%	16
District hospital	99%	99%	99%	98%	58%	40%	51%	8%	32%	149
Other general hospital	98%	94%	97%	92%	37%	26%	34%	5%	19%	132
Poly clinic	99%	93%	98%	92%	35%	13%	32%	1%	10%	69
Health centre	78%	70%	66%	60%	15%	2%	13%	0%	1%	452
Clinic/maternity home	73%	65%	66%	58%	19%	9%	15%	1%	8%	262
CHPS	18%	11%	10%	4%	8%	1%	7%	0%	0%	341
Expected facilities										
NCD diagnosis / surgery	98%	95%	98%	94%	43%	29%	39%	6%	22%	366
Non-NCD diagnosis / non-surgery	44%	36%	35%	29%	12%	3%	11%	0%	2%	1,055
Expected facilities										
CEmONC	98%	95%	98%	94%	43%	29%	39%	6%	22%	366
Non-CEmONC	44%	36%	35%	29%	12%	3%	11%	0%	2%	1,055
Expected facilities										
Non-BEmONC lower-level	86%	82%	83%	79%	36%	23%	33%	5%	18%	427
BEmONC lower-level	44%	36%	35%	29%	12%	3%	11%	0%	2%	994
Expected facilities										
EmONC	53%	46%	45%	39%	17%	7%	15%	1%	5%	1,421

Cardiovascular disease service availability (refer to table 3.3.1.1)

Overall, 46% of facilities offer any services for cardiovascular disease, with hypertension diagnosis and treatment being the most offered service at 42%. As expected, all regional hospitals offer services for cardiovascular diseases. For district hospitals, over 99% offer any cardiovascular services, 98% offer services for diagnosis and treatment of hypertension whilst 78% offer diagnosis and treatment for acute myocardial infarction. Also, 82% of district hospitals and 64% of other general hospitals can offer diagnosis and treatment of stroke. All hospitals are however expected to be able to diagnose and treat stroke.

Percentage of facilities offering CVD services (refer to table 3.3.1.2)

Over 50% of facilities that offer cardiovascular diseases (CVD) services had the guidelines and staff who had received training in the previous two years preceding the survey. The availability of specific equipment and medicines varies across regions and facility types. On average, the Bono East region had the highest readiness of facilities (74%) with staff and guidelines available at the time of the survey. Facilities with all items (staff and guidelines, equipment, medicines and commodities) were 3%. The North East region recorded the least facilities with medicines and commodities readiness.

There are 876 facilities out of the total sample that offer services on cardiovascular diseases. Overall, 30% of these facilities offer CVD services with an Electrocardiogram (ECG) and 56% with furosemide tab/cap. ECG tests are available in 81% of regional hospitals and 71% of district hospitals. Also, blood coagulation profiles are available in 25% of regional hospitals and 11% of district hospitals. Blood gas measurement capacity was available in 2% of all facilities across the country. Also, blood coagulation profile testing and streptokinase were available in 4% of facilities.

Diabetes service availability (refer to table 3.3.2.1)

Availability of any services for diabetes is 45% (n=1,421), with more than 97% availability amongst polyclinics and hospitals and the lowest availability of 10% amongst CHPS facilities. Similarly, 43% of facilities offer services for diagnosis of diabetes, 39% for treatment of diabetes and 41% for follow-up for diabetes. However, availability remains consistently high (>86%) amongst polyclinics and hospitals, and averages 60% amongst health centers and clinics. A slighter higher figure of 44% of facilities offer counselling for diabetes self-management, with an unexpectedly low availability of 9% amongst CHPS facilities.

Diabetes service availability (refer to table 3.3.2.2)

On average, availability of equipment and diagnostics was high, at 77% of facilities surveyed, with above 50% availability across all levels of facilities assessed aside CHPS. Lower numbers of facilities had availability of medicines, even for hospitals below the regional level. Similarly, although staff receiving training in diabetes diagnosis and treatment in the past two years preceding the study was low, averaging 47%, the availability of guidelines for diabetes diagnosis and treatment was relatively higher, at 61%. The low availability of staff receiving training is interesting, especially for the regional hospitals where continuous in-service training is expected to occur.

Diabetes service readiness - auxiliary indicators (refer to table 3.3.2.3)

Availability of testing capacity with HbA1c and blood gas measurement remains relatively low at 31% and 2% respectively. Only 57% of regional hospitals can undertake HbA1c investigations, and 12% have the capacity for blood gas measurement.

Chronic respiratory disease service availability (refer to table 3.3.3.1)

Of the facilities surveyed, 39% offered services for chronic respiratory diseases, of which availability was above 92% amongst hospitals and polyclinics. When disaggregated, however, only 36% of facilities and 18% of facilities provided services for asthma and chronic obstructive pulmonary diseases (COPD) respectively. Availability was again higher (>61%) amongst hospitals than the other facilities. Surprisingly, only 4% and 2% of CHPS offered services for asthma and COPD respectively, as against 58% and 53% respectively of health centers. Yet, these are conditions which could have an acute exacerbation and require immediate and urgent intervention when presenting as an emergency.

Chronic respiratory disease service readiness (refer to table 3.3.3.2)

Although guidelines for diagnosis and management of chronic respiratory diseases (CRD) are relatively available across facilities surveyed (67%), only 44% of facilities had staff having received training in diagnosis and management of CRD in the two years preceding the study. Furthermore, 52% of CHPS compounds have guidelines for the diagnosis and management of CRD, however, no staff at that level is trained in the diagnosis and management of CRD. A low of 34% of facilities that offer services for chronic respiratory diseases have peak flow meters (between 48-61% availability in hospitals), though a higher number of 76% have a spacer for inhalers available. Availability of oxygen with delivery apparatus, steroid inhalers (beclomethasone etc.) and salbutamol or terbutaline inhaler availability were also low (38%, 17% and 50% respectively).

Table 3.3.3.2 - Chronic respiratory disease service readiness

	Staff guidelines	and	Equipment	Diagnos		Medicines and commodities							
	Guidelines for diagnosis and management of CRD	Staff trained in diagnosis and management of CRD	Mean proportion of staff and items at facilities	Stethoscope	Peak flow meter	Mean proportion of equipment at facilities	Blood gas measurement capacity	Spacers for inhalers	Oxygen with delivery apparatus	Salbutamol or terbutaline inhaler	Beclometasone or other corticosteroid inhaler	Prednisolone tab/cap	n
National	67%	44%	56%	93%	34%	64%	2%	76%	38%	50%	17%	62%	79
Region													
Ahafo	50%	48%	49%	100%	19%	60%	0%	69%	43%	49%	15%	72%	19
Ashanti	62%	26%	44%	98%	49%	73%	3%	82%	33%	63%	29%	72%	15
Bono	67%	40%	54%	88%	2%	45%	1%	82%	36%	55%	18%	84%	43
Bono East	88%	63%	76%	92%	28%	60%	0%	82%	25%	36%	1%	39%	40
Central	71%	35%	53%	76%	36%	56%	2%	63%	24%	42%	12%	52%	72
Eastern	71%	47%	59%	96%	32%	64%	6%	83%	44%	59%	18%	61%	61
Greater Accra	74%	68%	71%	97%	47%	72%	4%	94%	57%	62%	20%	73%	18
North East	66%	10%	38%	97%	4%	50%	0%	10%	41%	4%	4%	5%	13
Northern	58%	18%	38%	89%	28%	58%	0%	55%	17%	32%	19%	46%	35
Oti	65%	47%	56%	78%	13%	45%	0%	93%	34%	77%	9%	48%	15
Savannah	47%	26%	36%	91%	17%	54%	0%	45%	7%	30%	0%	30%	20
Upper East	63%	38%	51%	98%	13%	56%	0%	44%	29%	24%	7%	52%	34
Upper West	78%	54%	66%	84%	12%	48%	0%	74%	26%	38%	16%	49%	29
Volta	86%	23%	55%	96%	50%	73%	3%	72%	29%	44%	18%	38%	42
Western	45%	34%	39%	93%	12%	52%	0%	64%	30%	38%	12%	60%	50
Western North	35%	36%	36%	87%	9%	48%	0%	46%	3%	14%	0%	52%	23
Managing authority													
Government/public	69%	35%	52%	89%	19%	54%	1%	58%	18%	32%	10%	40%	47
NGO/private	60%	50%	55%	96%	45%	71%	2%	89%	53%	63%	21%	80%	20
Mission/faith-based	84%	45%	65%	98%	39%	68%	8%	91%	39%	61%	22%	73%	82

Quasi government /university	81%	77%	79%	95%	40%	67%	5%	86%	69%	76%	40%	70%	20
Facility type													
Regional hospital	74%	74%	74%	93%	54%	74%	13%	93%	33%	67%	60%	93%	15
District hospital	79%	53%	66%	95%	48%	71%	5%	85%	40%	68%	36%	76%	143
Other general hospital	74%	54%	64%	98%	61%	79%	5%	95%	57%	76%	32%	86%	17
Poly clinic	76%	54%	65%	90%	49%	69%	4%	89%	36%	47%	16%	84%	63
Health centre	69%	35%	52%	92%	14%	53%	0%	61%	24%	34%	5%	40%	276
Clinic/maternity home	55%	48%	52%	94%	29%	61%	1%	84%	41%	46%	12%	66%	149
CHPS	52%	0%	26%	78%	0%	39%	0%	3%	0%	0%	0%	0%	16
Expected facilities													
NCD diagnosis / surgery	76%	54%	65%	96%	56%	76%	5%	92%	50%	71%	32%	83%	38
Non-NCD diagnosis / non-surgery	61%	38%	50%	92%	19%	55%	1%	67%	29%	37%	8%	49%	44
Expected facilities													
CEmONC	76%	54%	65%	96%	56%	76%	5%	92%	50%	71%	32%	83%	38
Non-CEmONC	61%	38%	50%	92%	19%	55%	1%	67%	29%	37%	8%	49%	44
Expected facilities													
Non-BEmONC lower-level	72%	52%	62%	96%	53%	75%	4%	88%	48%	68%	30%	81%	354
BEmONC lower-level	64%	39%	51%	92%	19%	55%	1%	68%	30%	37%	8%	48%	25
Expected facilities													
EmONC	67%	44%	56%	93%	34%	64%	2%	76%	38%	50%	17%	62%	79

NCD auxiliary indicators - Service support systems (refer to table 3.3.4.1)

Forty-eight percent of the facilities in Ghana had an appointment system for follow-up on non-communicable diseases (NCD) patients. Of the 972 facilities that had service support systems, 48% had a register/database with treatment start date, while individual patient cards/files for NCD patients were made available to 78% of the facilities. Greater Accra region had the highest proportion of facilities with an appointment system for follow-up of NCD patients (69%), followed by Ashanti region with 62%, and Volta region with 60% respectively. Savannah region was reported as the region with the least proportion of facilities with a register/database with treatment start date, adherence and outcome (18%).

The low proportions of appointment systems for follow-up of NCD patients and register/database with treatment start date, adherence and outcomes as observed in some regions may be a result of

the low number of medical specialists in these regions. Specialist clinics are low, therefore no appointment systems for NCD patients have been put in place.

Cervical cancer service availability

Seven percent (7%) of the facilities surveyed offered cervical cancer services. Pap smear, reading of Pap smear results and HPV test results were available in 4%, 4% and 1% of the facilities respectively. One percent of the facilities out of 1421 surveyed had colposcopy, and digital cervicography and provided treatment of pre-invasive cancer lesions. The Greater Accra region had the highest proportion of facilities offering services for cervical cancer (28%). Pap smear, reading of Pap smear result and reading of HPV test results (21%, 20% and 17% respectively) were mostly available in the Greater Accra region compared to the other regions. Colposcopy, digital cervicography and treatment of pre-invasive cervical lesions were found in 5% of the facilities surveyed in the Greater Accra region, but absent in most of the regions. Only 62% of regional hospitals and 40% of district hospitals provided services for cervical cancer.

Table 3.3.5.1 – Cervical Cancer Service Availability

	Any services for cervical cancer	PAP smear	Reading of PAP smear result	Reading of HPV test result	Colposcopy	Digital cervicography	Treatment of pre-invasive cervical cancer lesions	n
National	7%	5%	4%	4%	1%	1%	1%	1,421
Region								
Ahafo	6%	4%	0%	0%	0%	1%	0%	26
Ashanti	3%	3%	3%	3%	1%	1%	1%	173
Bono	10%	10%	1%	0%	0%	0%	0%	72
Bono East	10%	9%	6%	9%	3%	2%	2%	58
Central	3%	2%	1%	2%	1%	0%	1%	130
Eastern	4%	2%	2%	3%	2%	1%	1%	150
Greater Accra	28%	21%	20%	17%	5%	5%	5%	206
North East	2%	1%	1%	2%	0%	0%	1%	30
Northern	3%	0%	0%	0%	0%	0%	0%	87
Oti	2%	2%	2%	2%	0%	1%	0%	45
Savannah	2%	0%	0%	0%	1%	1%	0%	40
Upper East	8%	3%	1%	2%	0%	1%	1%	75
Upper West	3%	2%	3%	3%	1%	0%	0%	78
Volta	1%	1%	0%	1%	0%	0%	0%	96
Western	5%	4%	3%	3%	2%	1%	0%	102
Western North	3%	0%	3%	0%	0%	0%	0%	53
Managing authority								
Government/public	4%	2%	2%	1%	0%	0%	0%	971
NGO/private	14%	11%	10%	9%	3%	3%	3%	319
Mission/faith-based	18%	16%	7%	11%	4%	2%	3%	108
Quasi government/university	30%	16%	24%	24%	15%	15%	16%	23
Facility type								
Regional hospital	62%	56%	43%	37%	31%	25%	31%	16
District hospital	40%	36%	24%	19%	6%	6%	5%	149
Other general hospital	26%	22%	18%	19%	10%	8%	9%	132
Poly clinic	13%	11%	10%	4%	1%	0%	2%	69
Health centre	2%	1%	1%	1%	0%	0%	0%	452
Clinic/maternity home	9%	5%	5%	5%	0%	0%	0%	262
CHPS	1%	0%	0%	0%	0%	0%	0%	341
Expected facilities								
NCD diagnosis / surgery	29%	26%	20%	18%	9%	7%	8%	366

Non-NCD diagnosis / non-surgery	3%	1%	2%	1%	0%	0%	0%	1,055
Expected facilities								
CEmONC	29%	26%	20%	18%	9%	7%	8%	366
Non-CEmONC	3%	1%	2%	1%	0%	0%	0%	1,055
Expected facilities								
Non-BEmONC lower-level	23%	20%	15%	14%	7%	6%	6%	427
BEmONC lower-level	3%	1%	2%	2%	0%	0%	0%	994
Expected facilities								
EmONC	7%	5%	4%	4%	1%	1%	1%	1,421

Cervical cancer readiness - visual inspection (refer to table 3.3.5.2)

Of facilities offering cervical cancer screening (n=142), 66% of them had guidelines for cervical cancer screening, diagnosis or treatment; and 52% had staff who had received training in the two years preceding the study. Availability of trained personnel was least amongst non-government hospitals. Interestingly, most of these facilities did not have acetic acid or Lugols iodine (39% availability), with increased availability at district hospitals (62%) more than regional hospitals (50%). No facility in Ahafo, Northern, Savannah or Western North region had acetic acid or Lugols iodine available at the facility at the time of the survey. Only 9% of facilities providing services had all the items assessed i.e. guidelines, trained staff, vaginal speculum, acetic acid and iodine at the time of the survey.

Cervical cancer auxiliary indicators - Screening and treatment (refer to table 3.3.5.3)

Only one facility which is a regional hospital (10% of n=10) offer services in HPV testing. Very few facilities that offer cervical cancer services (n=142) have digital cervicography equipment (15%), materials for loop electrosurgical excision procedure (12%), materials for cryotherapy/thermal-cold coagulation (12%) and cisplatin intravenous (5%). Latex gloves were available in almost all the facilities across the sixteen regions except the Northern region, which recorded 34%.

Breast cancer service availability (refer to table 3.3.5.4)

On the availability of breast cancer services, 15% of the facilities surveyed (n=1421) were offering the service. All (15%) of the facilities offering breast cancer services provide manual breast examination as a service. More than half of the regional (68%) and district hospitals (51%) had breast cancer services available. Investigations and treatment modalities for breast cancer was relatively unavailable at the various levels of care i.e. 1% availability each for mammography, fine needle aspiration and, chemotherapy, 2% each for core needle biopsy, lumpectomy and mastectomy. Services were most likely to be available at the regional hospital level, although availability was surprisingly still low across the spectrum of breast cancer services, ranging from 6% for radiation treatment to 68% for any services for breast cancer.

The Greater Accra region had the highest proportion of facilities providing services for breast cancer, with 33% doing manual breast examination and 3% mammography. Chemotherapy treatment and radiation treatment was 4% and 2% in the Greater Accra region. It is surprising that in all hospitals (they are expected to have wellness clinics where breast screening is provided, as well as have family planning or reproductive health units where this service ought to be available), the service availability wasn't closer to 100%. Again, in lower level facilities like health centers and CHPS where preventive care is paramount, service availability for breast examination was less than 13%

of facilities surveyed. However, 4% of the facilities have service availability for outpatient maintenance treatment for breast cancer.

Breast cancer service readiness (refer to table 3.3.5.5)

30% of facilities surveyed had guidelines for breast cancer screening, diagnosis and treatment. Additionally, 41% of facilities had staff who had received training in breast cancer screening, diagnosis and treatment in the two years preceding the survey. Guidelines availability was less than 50% even amongst regional and district hospitals. Trained staff were however more available at the regional hospitals (82%) and polyclinics (59%). Surprisingly, all facilities in the Oti region had staff who had recently been trained in breast cancer screening, diagnosis and treatment. As found with radiation treatment, availability of chemotherapy for breast cancer treatment is low at less than 3%, with availability more likely at the hospital level i.e. 0%-9% availability of Tamoxifen or cyclophosphamide).

Prostate cancer service availability (refer table 3.3.5.6)

Availability of services for prostate cancer is low across all facilities surveyed, with only five percent (5%) of the facilities surveyed offering services for prostate cancer. Also low was the availability of services such as digital rectal examination (4%), prostate-specific antigen (PSA) test (4%), prostate biopsy (1%) and surgical interventions for prostate cancer (2%). Radiation therapy was however found to be available in one regional hospital (n=16), five district hospitals (n=149) and about three other general hospitals (n=132). Greater Accra had the highest proportion of facilities with services on prostate cancer and all other features assessed under prostate cancer. Regional (50%) and district hospitals (32%) were more likely to provide services for prostate cancer.

Table 3.3.5.6 – Prostate Cancer Availability

.	Any services for prostate cancer	Digital rectal examination (DRE)	Prostate specific antigen (PSA) test	Prostate biopsy	Surgical interventions for prostate cancer	Radiation therapy	n
National	5%	4%	4%	1%	2%	0%	1,421
Region							
Ahafo	13%	12%	6%	2%	2%	0%	26
Ashanti	2%	1%	2%	0%	2%	1%	173
Bono	10%	10%	10%	0%	3%	0%	72
Bono East	7%	7%	6%	2%	3%	0%	58
Central	3%	2%	1%	1%	0%	0%	130
Eastern	2%	1%	1%	1%	1%	0%	150
Greater Accra	22%	16%	17%	6%	7%	2%	206
North East	2%	1%	2%	1%	1%	0%	30
Northern	0%	0%	0%	0%	0%	0%	87
Oti	2%	2%	2%	0%	1%	0%	45
Savannah	0%	0%	0%	0%	0%	0%	40
Upper East	4%	3%	2%	1%	1%	0%	75
Upper West	1%	1%	1%	0%	0%	0%	78
Volta	1%	1%	1%	0%	1%	0%	96
Western	4%	4%	4%	0%	0%	0%	102
Western North	0%	0%	0%	0%	0%	0%	53
Managing authority							
Government/public	2%	1%	1%	0%	1%	0%	971
NGO/private	12%	9%	10%	3%	4%	1%	319
Mission/faith-based	14%	11%	14%	1%	5%	0%	108
Quasi government/university	29%	29%	20%	10%	15%	10%	23
Facility type							

Regional hospital	50%	50%	43%	43%	37%	6%	16
District hospital	32%	26%	27%	2%	12%	3%	149
Other general hospital	19%	17%	17%	7%	9%	2%	132
Poly clinic	10%	5%	5%	0%	0%	0%	69
Health centre	1%	1%	0%	0%	0%	0%	452
Clinic/maternity home	8%	5%	6%	1%	1%	0%	262
CHPS	0%	0%	0%	0%	0%	0%	341
Expected facilities							
NCD diagnosis / surgery	22%	19%	19%	6%	9%	2%	366
Non-NCD diagnosis / non-surgery	2%	1%	1%	0%	0%	0%	1,055
Expected facilities							
CEmONC	22%	19%	19%	6%	9%	2%	366
Non-CEmONC	2%	1%	1%	0%	0%	0%	1,055
Expected facilities							
Non-BEmONC lower-level	18%	15%	15%	5%	7%	2%	427
BEmONC lower-level	2%	1%	1%	0%	0%	0%	994
Expected facilities							
EmONC	5%	4%	4%	1%	2%	0%	1,421

Prostate cancer service readiness (refer to table 3.3.5.7)

Of the facilities providing prostate cancer services, fifty-four percent (54%) had national guidelines for prostate cancer diagnosis and treatment, while 61% had staff who had received training in any aspect of prostate cancer screening, diagnosis and treatment within the two years preceding the survey. PSA test was available in 32% of these facilities surveyed. Ten percent of the facilities providing prostate cancer services had all three items i.e. guidelines, staff trained and conducted PSA tests

Colorectal cancer service availability (refer to table 3.3.5.8)

Colorectal cancer services were low across the country as only 1% of the facilities surveyed were offering services for colorectal cancer. Stool guaiac/faecal immunochemical (FIT) testing was provided by 1% of the facilities and this cut across all colorectal cancer services (colonoscopy, biopsy of colon polyp, surgical interventions and chemotherapy for colorectal cancer). Service availability of colorectal cancer was low across the 16 regions. Colorectal service was mostly available among regional hospitals (37%).

Table 3.3.5.8 – Colorectal cancer service availability

.	Any services for colorectal cancer	Stool guaiac/FIT testing	Colonoscopy service	Biopsy of colon polyp	Surgical interventions for colorectal cancer	Chemotherapy for colorectal cancer	n
National	1%	1%	1%	1%	1%	1%	1,421
Region							
Ahafo	1%	0%	0%	1%	1%	0%	26
Ashanti	2%	2%	1%	1%	2%	2%	173
Bono	1%	0%	0%	0%	0%	0%	72
Bono East	0%	0%	0%	0%	0%	0%	58
Central	0%	0%	0%	0%	0%	0%	130
Eastern	0%	0%	0%	0%	0%	0%	150
Greater Accra	6%	4%	4%	3%	3%	2%	206
North East	1%	0%	0%	1%	1%	0%	30
Northern	0%	0%	0%	0%	0%	0%	87
Oti	1%	0%	0%	0%	0%	0%	45
Savannah	0%	0%	0%	0%	0%	0%	40

Upper East	0%	0%	0%	0%	0%	0%	75
Upper West	0%	0%	0%	0%	0%	0%	78
Volta	0%	0%	0%	0%	0%	0%	96
Western	1%	1%	0%	0%	0%	0%	102
Western North	0%	0%	0%	0%	0%	0%	53
Managing authority							
Government/public	0%	0%	0%	0%	0%	0%	971
NGO/private	2%	2%	1%	0%	0%	0%	319
Mission/faith-based	3%	3%	0%	0%	3%	3%	108
Quasi government/university	15%	15%	15%	15%	15%	15%	23
Facility type							
Regional hospital	37%	6%	12%	31%	37%	19%	16
District hospital	8%	6%	3%	2%	7%	6%	149
Other general hospital	5%	4%	5%	3%	3%	3%	132
Poly clinic	1%	0%	0%	0%	0%	0%	69
Health centre	0%	0%	0%	0%	0%	0%	452
Clinic/maternity home	1%	1%	0%	0%	0%	0%	262
CHPS	0%	0%	0%	0%	0%	0%	341
Expected facilities							
NCD diagnosis / surgery	6%	4%	4%	3%	5%	4%	366
Non-NCD diagnosis / non-surgery	0%	0%	0%	0%	0%	0%	1,055
Expected facilities							
CEmONC	6%	4%	4%	3%	5%	4%	366
Non-CEmONC	0%	0%	0%	0%	0%	0%	1,055
Expected facilities							
Non-BEmONC lower-level	5%	3%	3%	2%	4%	3%	427
BEmONC lower-level	0%	0%	0%	0%	0%	0%	994
Expected facilities							
EmONC	1%	1%	1%	1%	1%	1%	1,421

Colorectal cancer service readiness (refer to table 3.3.5.9)

Among facilities offering colorectal cancer services (n=24), availability of staff who had received training in diagnosis and management of colorectal cancer was 40%, whilst availability of guidelines for diagnosing and treating colorectal cancer is 56%. Greater Accra region had a high service availability for colorectal cancer services, although not all the facilities had all items assessed for service readiness to provide colorectal services i.e. guidelines, staff trained, stool guaiac test or intravenous fluorouracil (5FU).

Cancer cross-cutting auxiliary indicators (refer to table 3.3.5.10)

Less than 30% of the facilities (n=319) that provided any cancer services, had cancer patient follow-up register with outcome data (21%), reporting of newly diagnosed cases to national cancer register (19%) and reporting of newly diagnosed cancer cases to facility cancer register (24%). Liver functioning test was available in 24% of the facilities surveyed, whilst 23% undertook tests for serum electrolytes. Biopsy services availability was 3%, 1% facilities with microtome for slicing biopsy samples, while facilities with morphine (oral or injectable) was 43%. Service availability was highest amongst the hospitals.

Mental health and neurological services availability

Thirty percent (30%) of the facilities surveyed offer services for mental or neurological health, 23% offer services for mental health disorders, 22% offer services for neurological disorders, 8% offer mental health inpatient services and 9% offer neurological inpatient services. Management for mood

disorders (27%), schizophrenia (25%), anxiety-related disorders (26%), and dementia (25%) is as indicated. Community linkages for mental or neurological services were created among 24% of the facilities surveyed. Half (50%) of the facilities surveyed in the Upper East region offered services for mental or neurological health services as compared to the other 15 regions.

Mental health and neurological inpatient services were however high among the North East region (i.e. 20% and 22% respectively), while Upper East had the majority of facilities (48%) that created community linkages for mental or neurological services. These findings are generally reflective of the reality on the ground. Availability of any services for mental or neurological health service was low (32%) at ‘other general hospitals’ because they are mostly privately owned. These services are also hardly available at the clinics/ maternity homes and CHPS because there are no mental health professionals at those levels. Although only 8% of facilities surveyed provided mental health inpatient services, service availability at the level of hospitals and polyclinics was relatively high, at 88%, 61% and 37% for regional hospitals, district hospitals and polyclinics respectively. It must be noted that according to the Mental Health Policy 2019 – 2030, health facilities below the district hospital level are not expected to provide inpatient care.

Table 3.3.6.1 – Mental Health And Neurological Service Availability

	Any services for mental or neurological health	Services for mental disorders	Service for neurological disorders	Mental health inpatient services	Neurological inpatient services	Management of mood disorders (depression, bipolar disorder, etc)	Management of schizophrenia	Management of anxiety-related disorders	Management of epilepsy / seizures	Management of dementia	Community linkage for mental or neurological services	n
National	30%	28%	27%	8%	9%	27%	25%	26%	28%	25%	24%	1,421
Region												
Ahafo	25%	25%	25%	7%	7%	25%	25%	25%	25%	25%	25%	26
Ashanti	32%	28%	28%	9%	11%	26%	23%	26%	28%	24%	19%	173
Bono	31%	31%	30%	5%	5%	30%	30%	30%	30%	30%	28%	72
Bono East	31%	31%	31%	11%	11%	31%	30%	27%	31%	25%	25%	58
Central	34%	32%	29%	7%	8%	30%	30%	31%	31%	29%	31%	130
Eastern	25%	24%	23%	6%	8%	24%	22%	22%	24%	20%	21%	150
Greater Accra	31%	30%	28%	10%	9%	28%	26%	29%	28%	27%	18%	206
North East	34%	34%	34%	20%	22%	31%	32%	29%	32%	31%	31%	30
Northern	37%	28%	34%	4%	7%	24%	27%	25%	34%	21%	26%	87
Oti	24%	24%	24%	10%	10%	22%	23%	22%	23%	21%	24%	45
Savannah	14%	13%	14%	6%	6%	13%	12%	13%	14%	10%	13%	40
Upper East	50%	47%	47%	13%	13%	46%	42%	46%	46%	45%	48%	75
Upper West	25%	25%	24%	5%	3%	24%	22%	24%	24%	21%	25%	78
Volta	30%	30%	28%	16%	15%	29%	27%	27%	28%	30%	25%	96

Western	17%	17%	16%	4%	5%	17%	17%	16%	17%	16%	14%	102
Western North	27%	27%	24%	5%	5%	27%	22%	25%	27%	17%	16%	53
Managing authority												
Government/public	32%	30%	29%	7%	7%	29%	28%	28%	30%	26%	27%	971
NGO/private	15%	13%	13%	7%	7%	12%	10%	12%	12%	11%	6%	319
Mission/faith-based	65%	63%	63%	26%	29%	62%	63%	63%	64%	62%	57%	108
Quasi government/university	57%	48%	48%	28%	23%	47%	42%	52%	56%	52%	17%	23
Facility type												
Regional hospital	100%	100%	100%	88%	94%	100%	100%	100%	100%	100%	88%	16
District hospital	95%	95%	95%	61%	64%	95%	94%	95%	95%	92%	80%	149
Other general hospital	32%	31%	30%	21%	22%	29%	26%	29%	30%	28%	24%	132
Poly clinic	93%	93%	91%	36%	37%	90%	91%	92%	91%	87%	79%	69
Health centre	62%	61%	59%	8%	8%	59%	56%	56%	60%	52%	55%	452
Clinic/maternity home	18%	16%	16%	5%	5%	15%	13%	15%	15%	15%	9%	262
CHPS	12%	11%	10%	0%	0%	10%	9%	10%	11%	9%	10%	341
Expected facilities												
NCD diagnosis / surgery	55%	54%	54%	34%	36%	53%	51%	53%	53%	51%	44%	366
Non-NCD diagnosis / non-surgery	25%	23%	22%	3%	3%	22%	20%	21%	23%	20%	20%	1,055
Expected facilities												
CEmONC	55%	54%	54%	34%	36%	53%	51%	53%	53%	51%	44%	366
Non-CEmONC	25%	23%	22%	3%	3%	22%	20%	21%	23%	20%	20%	1,055
Expected facilities												
Non-BEmONC lower-level	44%	43%	42%	26%	28%	42%	40%	42%	42%	41%	35%	427
BEmONC lower-level	26%	24%	23%	3%	3%	23%	21%	22%	24%	21%	20%	994
Expected facilities												
EmONC	30%	28%	27%	8%	9%	27%	25%	26%	28%	25%	24%	1,421

Mental health and neurological services readiness (refer to table 3.3.6.2)

Readiness to provide mental or neurological services with the availability of management guidelines was encountered in 37% of facilities (n=668). In these facilities, staff who had received training in the diagnosis and management of mental health conditions, and in the diagnosis and management of neurological conditions within the two years preceding the survey was 56% and 45% respectively. Relatively higher availability of trained staff was in the regional hospitals, but guideline availability was more likely in district hospitals than in regional hospitals. Availability of medicines for mental health disorders averaged 54% of facilities surveyed, but availability of anti-epilepsy medicine was in 82% of facilities surveyed.

Medicines availability was about the same in all hospital levels, as well as the polyclinics. Availability of medicines averaged 60% of facilities at the health centre level and clinics/maternity homes, and about 25% at the CHPS level. Only 11% of facilities surveyed had all items assessed under preparedness i.e. guidelines, trained staff and medicines. The relatively high availability of anticonvulsants (82%) is not surprising, since it is covered by the National Health Insurance Scheme (NHIS). The high availability of facilities with staff having recently received training in diagnosis and management of the various disorders at the regional, district and other general hospitals could be explained by the Mental Health Gap Action Programme (mhGAP) training which has been running in the last 5 years. Participants were usually selected from these facility types.

Services for survivors of rape, sexual or intimate partner violence – availability

Services for survivors of rape, sexual or intimate partner violence was generally low across all service delivery areas assessed. Thus, 12% of the facilities surveyed provide services for survivors of rape, sexual or intimate partner violence, 7% provide forensic assessment for survivors of rape or sexual or intimate partner violence, and post-exposure prophylaxis (PEP) for survivors of rape or sexual or intimate partner violence. Eight percent (8%) of the facilities were also providing services on hepatitis B immunization and emergency contraception for survivors of rape or sexual or intimate partner violence. Availability of services for survivors of rape, sexual or intimate partner violence was found to be low in Volta (1%), Oti (4%) and Ahafo (4%) regions. The regional and district hospitals were the major providers of these services (64%-74%)

Table 3.3.7.1 – Services for Survivors of Rape, Sexual or Intimate Partner Violence – Availability

	Services for survivors of rape, sexual or intimate partner violence	Forensic assessment for survivors of rape or sexual or intimate partner violence	Post exposure prophylaxis (PEP) for survivors of rape or sexual or intimate partner violence	Hepatitis B immunization for survivors of rape or sexual or intimate partner violence	Emergency contraception for survivors of rape or sexual or intimate partner violence	n
National	12%	7%	7%	8%	8%	1,421
Region						
Ahafo	4%	2%	4%	4%	2%	26
Ashanti	9%	6%	5%	5%	7%	173
Bono	11%	11%	11%	11%	5%	72

Bono East	12%	12%	7%	9%	8%	58
Central	10%	8%	6%	6%	6%	130
Eastern	10%	4%	7%	8%	10%	150
Greater Accra	23%	14%	15%	16%	15%	206
North East	22%	22%	4%	19%	2%	30
Northern	10%	8%	3%	6%	5%	87
Oti	4%	2%	3%	2%	2%	45
Savannah	12%	4%	5%	10%	6%	40
Upper East	15%	2%	7%	11%	14%	75
Upper West	7%	5%	4%	6%	7%	78
Volta	1%	0%	1%	1%	1%	96
Western	12%	3%	11%	10%	9%	102
Western North	8%	5%	5%	7%	8%	53
Managing authority						
Government/public	9%	4%	5%	6%	6%	971
NGO/private	15%	9%	7%	10%	10%	319
Mission/faith-based	25%	20%	25%	23%	13%	108
Quasi government/university	29%	24%	24%	19%	19%	23
Facility type						
Regional hospital	74%	56%	68%	56%	68%	16
District hospital	64%	43%	53%	56%	40%	149
Other general hospital	27%	19%	16%	17%	18%	132
Poly clinic	44%	37%	41%	41%	39%	69
Health centre	13%	5%	6%	7%	9%	452
Clinic/maternity home	10%	5%	6%	8%	7%	262
CHPS	2%	1%	1%	2%	1%	341
Expected facilities						
NCD diagnosis / surgery	39%	28%	29%	30%	27%	366
Non-NCD diagnosis / non-surgery	6%	3%	3%	4%	4%	1,055
Expected facilities						
CEmONC	39%	28%	29%	30%	27%	366
Non-CEmONC	6%	3%	3%	4%	4%	1,055
Expected facilities						
Non-BEmONC lower-level	31%	22%	22%	24%	21%	427

BEmONC lower-level	6%	3%	3%	4%	5%	994
Expected facilities						
EmONC	12%	7%	7%	8%	8%	1,421

Services for survivors of rape, sexual or intimate partner violence – readiness (refer to table 3.3.7.2)

Of facilities offering services for survivors of rape, and sexual or intimate partner violence (n=265), readiness to provide services in terms of availability of guidelines was 12% (availability averaged 19% amongst hospitals). No facility in the North East, Northern, Central, Upper East, Volta and Western North regions was found to have guidelines. However, of the four (4) facilities providing these services in the Ahafo region, three (3) were found to have guidelines. Only 21% of staff in the facilities surveyed had received training on delivering the services in the two years preceding the service.

The availability of trained staff was similarly spread across all hospital levels and polyclinics. Availability of diagnostic test kits for syphilis, HIV and pregnancy were generally high (above 87%), most likely because of their use in maternal care. However, the availability of other specific diagnostic test kits for gonorrhoea and chlamydia was lower, averaging 33%, with availability more likely amongst regional hospitals (67%) than in hospitals below the regional level (about 50%). Similarly, the availability of medicines for treating sexually transmitted diseases was high across facilities surveyed (above 64%), but the availability of emergency contraception was significantly lower at 25%, with non available in any of the facilities of some regions surveyed. The low availability of a form or standard for documenting cases (17%) is worrying, even at the regional hospital level (50%) and calls for urgent intervention to standardize care provision at all levels.

Services for children affected by maltreatment – availability

Thirteen percent (13%) of the facilities surveyed (n=1421) offered services for children affected by maltreatment. Twenty-six percent (26%) of the facilities in the Upper East region had services for children affected by maltreatment available, followed by North East (24%) and Eastern region (23%), while the Volta region had the lowest percentage (1%) of facilities with services for children affected by maltreatment. The regional hospitals had 68% and district hospitals had 47% service availability for children affected by maltreatment as compared to the other facility types.

Table 3.3.7.3 – Services for children affected by maltreatment – availability

	Services for children affected by maltreatment	n
National	13%	1,421
Region		
Ahafo	9%	26
Ashanti	5%	173
Bono	8%	72
Bono East	9%	58
Central	7%	130

Eastern	23%	150
Greater Accra	20%	206
North East	24%	30
Northern	21%	87
Oti	5%	45
Savannah	7%	40
Upper East	26%	75
Upper West	7%	78
Volta	1%	96
Western	10%	102
Western North	4%	53
<hr/>		
Managing authority		
Government/public	12%	971
NGO/private	12%	319
Mission/faith-based	24%	108
Quasi government/university	13%	23
<hr/>		
Facility type		
Regional hospital	68%	16
District hospital	47%	149
Other general hospital	21%	132
Poly clinic	33%	69
Health centre	14%	452
Clinic/maternity home	9%	262
CHPS	7%	341
<hr/>		
Expected facilities		
NCD diagnosis / surgery	30%	366
Non-NCD diagnosis / non-surgery	9%	1,055
<hr/>		
Expected facilities		
CEmONC	30%	366
Non-CEmONC	9%	1,055
<hr/>		
Expected facilities		
Non-BEmONC lower-level	24%	427
BEmONC lower-level	10%	994
<hr/>		
Expected facilities		
EmONC	13%	1,421

Services for children affected by maltreatment – readiness (refer to table 3.3.7.4)

Amongst facilities offering services for children affected by maltreatment (n=253), guidelines availability was 20%, whilst 25% of staff had received training on identification of and/or services for such children in the past two years preceding the survey. Guidelines availability was lower amongst regional hospitals, than other hospitals although regional hospitals had more staff having recently received training. The availability of a form or standard for documenting cases was also low (19%) across facilities surveyed, even at the regional hospital level. Only 6% of facilities had all items i.e. guidelines, trained staff and standard documents for cases. No facility in Central, Ahafo and Bono regions had guidelines and protocols for children affected by maltreatment.

Management and Finance

Governance and management systems

Facility governance and management

Approximately 62% of facilities surveyed nationwide were found to have facility management committees in place responsible for the overall facility management of these budget management centres (BMCs) that had met in the last past 3 months.

Six regions namely Volta (19%), Oti (33%), Eastern (48%), Savannah (53%), Northern (57%) and North-East (59%) had percentages of facilities below the national average of 62% to have had facility management committees in place responsible for facility management that had met in the last 3 months. The poor out-turn of this indicator in the Volta region is peculiar and worrying since it is one of the oldest regions and more urban and peri-urban than the Oti region which had almost twice of its facilities with such facility management mechanisms in place and thus may require some further studies to delve into this performance.

Though mission/faith-based, quasi government/universities and NGO/private fared better than the national average of 62%, government/public facilities were the noticeable culprit with approximately only 6 out of every 10 facilities (58%) having in place facility management committee to oversee their respective facility management that had met in the last 3 months. CHPS (48%) and clinic/maternity homes (61%) had the lowest percentages of facilities with the existence of a facility management committee in place that had met in the last 3 months which is not unexpected considering the skewed disadvantage of expertise that these lower health care delivery levels face often.

Though 45% of the facilities nationwide had a routine system for eliciting community input into facility management decisions, seven (7) regions namely, Volta (9%), Oti (24%), North-East (32%), Greater Accra (36%), Savannah (41%), Ashanti (41%), & Eastern (44%) had less percentage of their facilities eliciting community inputs into facilities' management decisions. NGOs/private (25%) and quasi/university (32%) facilities had relatively low percentages of community input into facility management due largely to the location of operations and ownership structures of these facilities. It is however Ironic to note that CHPS, clinic/ maternity homes that largely operate with strong community presence had only 46% & 25% respectively of its facilities having such routine systems for eliciting community input into their management decisions in place. The increased involvement of communities in routine management decisions at the regional hospitals and polyclinics (both 75%) is revealing and worth noticing and must be probed further to identify what might have accounted for such paradigm change in the style of management at those higher levels of healthcare.

Though 70% of facilities nationwide had some form of formal systems for linking services with Community Health Workers (CHWs) for any services, Greater Accra understandably had the lowest percentage (47%) of such facilities with such linkages due largely to its purely urbanized and peri-urbanized nature of their service deliveries.

NGOs/private and quasi government/university with their nature of ownership and type of service they render as well as their pro-urban locations and service deliveries may understandably have low proportions of their facilities (32% and 49% respectively) having such systems in place. Also, other general hospital (38%) and clinic/maternity homes (40%) percentages are found to be lower than the

national average of 70% due largely to the scope of services they render and the locations of such facilities that are mostly in cities and towns with less rural dwellings.

Table 4.1.1.1— Facility governance and management

.	A facility management committee responsible for overall facility management that has met within past 3 months	A routine system for eliciting community input into management decisions	Formal systems for linking services with CHWs for any services	n
National	62%	45%	70%	1,421
Region				
Ahafo	74%	49%	80%	26
Ashanti	75%	41%	61%	173
Bono	65%	60%	78%	72
Bono East	64%	48%	71%	58
Central	65%	50%	80%	130
Eastern	48%	44%	73%	150
Greater Accra	71%	36%	47%	206
North East	59%	32%	83%	30
Northern	57%	46%	70%	87
Oti	33%	24%	69%	45
Savannah	53%	41%	72%	40
Upper East	74%	67%	96%	75
Upper West	76%	67%	90%	78
Volta	19%	9%	59%	96
Western	69%	52%	69%	102
Western North	66%	57%	72%	53
Managing authority				
Government/public	58%	52%	84%	971
NGO/private	67%	25%	32%	319
Mission/faith-based	89%	56%	70%	108
Quasi government/university	74%	32%	49%	23
Facility type				
Regional hospital	94%	75%	75%	16
District hospital	98%	68%	78%	149
Other general hospital	88%	39%	38%	132
Poly clinic	96%	75%	88%	69
Health centre	72%	58%	82%	452
Clinic/maternity home	61%	25%	40%	262
CHPS	48%	46%	83%	341
Expected facilities				
NCD diagnosis / surgery	91%	50%	53%	366
Non-NCD diagnosis / non-surgery	56%	44%	73%	1,055
Expected facilities				
CEmONC	91%	50%	53%	366
Non-CEmONC	56%	44%	73%	1,055
Expected facilities				
Non-BEmONC lower-level	81%	43%	49%	427
BEmONC lower-level	57%	46%	75%	994
Expected facilities				
EmONC	62%	45%	70%	1,421

Routine maintenance systems for infrastructure, vehicles and equipment

Routine maintenance systems for any facility vehicles (refer to table 4.1.2.1)

Overall, routine maintenance systems for any facility vehicles hovered around 55% nationally. Ahafo (91%), GAR (85%), AR (75%), Bono (75%), Bono East (67%) and UER (58%) had percentages of facilities with routine maintenance for any vehicle above the national average of 55%. The rest of

the other regions had percentages of facilities in their regions having routine maintenance for any vehicle below the national average of 55% with the worst performing region being Oti with only 11% of its facilities having routine maintenance in place for any vehicle at their facilities.

mission/faith-based (87%), NGO/private (76%) and quasi government facilities (78%) all had high values as compared to government facilities that hovered around 36% largely due to funding, locational operations context and quality of supervision and management differences between government-funded facilities and other facilities managed by others.

The percentage of facilities that had routine maintenance systems in place varied across facility levels significantly favouring the higher level of health care due to better funding abilities at the disposal of bigger facilities. For example, whilst 100% of regional hospitals had a system of routine maintenance in place, 91% and 19% of lower-level facilities made up of district hospitals and CHPS respectively also had some system of routine maintenance in place.

Systems in place for routine maintenance of any infrastructure such as electrical, water, sanitation or ventilation systems, incinerators, and generators (refer to table 4.1.2.1)

Facilities with systems in place for routine maintenance of infrastructure such as electrical, water, sanitation or ventilation systems, incinerators, generators etc. was 15% nationally. Greater Accra Region (39%), North East (22%), Ashanti Region (20%), Volta Region (18%) and Ahafo Region (17%) had the percentages of routine maintenance in this category above the national average of 15%. All other regions equally performed so poorly far below the national average with Upper West Region (2%), Savannah Region (3%) and Upper East Region (5%) being the worst performing regions in terms of regions with facilities having routine maintenance of infrastructure such as electrical, water, sanitation, ventilation, incinerator generator in place as described in the category above. Similarly, 81% of all Regional Hospital facilities had routine systems in place under this category. Considering the better funding opportunities at the behest of regional hospitals, it is worth investigating how 19% of such facilities continue to lack the capacity to carry out such basic routine maintenance.

Systems for routine maintenance of the electrical system (refer to table 4.1.2.1)

Fifteen percent (15%) of facilities nationwide were found to have systems in place for routine maintenance of electrical systems. Apart from the Greater Accra Region which had 42% of their facilities having systems in place for routine maintenance of electrical systems far above the national average of 15%, all the other fifteen regions had less than 20% of their facilities having such systems of electrical maintenance in place with worst performing regions being Savannah and Upper West regions recording as low as 2% each of their facilities having such maintenance systems in place. It is also interesting to know that only 50% of the 16 regional hospitals across the country had in place routine maintenance for electrical systems, a situation that requires some further probing considering how basic electrical maintenance is to facility upkeep. In the case of district hospitals, only 40% of the 149 district hospitals interviewed had routine maintenance of electrical systems in place.

Systems for routine maintenance of any medical, sterilization or laboratory equipment (refer to table 4.1.2.1)

The results revealed that 13% of facilities nationwide had systems for routine maintenance of any medical, sterilization or laboratory equipment. Greater Accra region had the most percentages of facilities with such maintenance culture in place (40%). Meanwhile, as expected more higher-level

facilities are expected to have such routine maintenance in place with 81% of all regional hospitals having such systems for routine maintenance for any medical, sterilization or laboratory equipment in place, followed keenly by district/other general hospitals and polyclinics who had 48%, 48% and 44% respectively of facilities in those categories having such maintenances in place with CHPS recording a paltry 1% of CHPS facilities with such routine maintenances in place.

A system for routine maintenance or replacement of small medical equipment (refer to table 4.1.2.1)

The survey revealed that 21% of facilities across the country had a system for routine maintenance or replacement of small medical equipment in place, with 63% of Greater Accra Region facilities having such routine maintenance or replacement of small equipment in place. This is followed by Ashanti and Bono East regions with 28% of their facilities with those maintenances in place. Most of the other regions performed very poorly averaging less than 10% of their facilities having such maintenances or replacement of small equipment in place. With better funding opportunities and in-house expertise at the behest of the higher levels of public health care providers, 81% of regional hospitals having such maintenance systems is less than expected. The 3% of CHPS having such maintenance or replacement routines in place may largely be due to size, funding abilities and/or location. This finding is timely in helping to shape policies to address the teething challenges confronting lower level of healthcare providers, especially concerning the availability of small equipment maintenance necessary for providing effective healthcare at their levels.

Systems for routine maintenance of the water system (refer to table 4.1.2.1)

Nationally, 15% of facilities had a system in place for routine maintenance of their water systems. Apart from the Greater Accra Region which had 44% of its facilities having such routine maintenance for water systems, the rest of the regions had poor attitudes to this maintenance culture with all of them having less than 20% of their facilities engaging in such maintenance.

Systems for routine maintenance of sanitation and sewage system (refer to table 4.1.2.1)

Nationally, 17% of facilities were found to have in place routine maintenance for sanitation and sewage. Apart from Greater Accra and Bono East Regions which had 51% and 22% of its facilities having in place routine maintenance for sanitation and sewage systems, all other regions had very poor maintenance culture for sanitation and sewerage. Whereas 69% of Quasi government/universities had in place routine maintenance for their sanitation and sewage systems, only 8% of government/public facilities had this system in existence. Also, only between 40-55% of all hospitals had a maintenance system in place for sanitation and sewage systems, compared to 45% of polyclinics, and as low as 4% of CHPS. Having only 4% of CHPS facilities having these maintenances in place is not surprising as most of these CHPS are underfunded and may not have the needed expertise at their disposal. However, these findings are eye-openers to policymakers as to which levels of health care to invest in most.

Systems for routine maintenance of the ventilation system (refer to table 4.1.2.1)

In all 17% of facilities nationally had in place routine maintenance of ventilation systems, with the Greater Accra Region (59%) having the most facilities with routine maintenance of ventilation systems. GHS national headquarters provide bigger facilities with a high level of support for such maintenance through an integrated maintenance work plan and thus, 75% of regional hospitals and 72% of District Hospitals have ventilation systems maintenance in place.

Budget

Facility budget

Nationally, almost a quarter of facilities across the country (23%) had in place budgeted annual work plans for the current financial year with the Greater Accra region recording the highest percentage of facilities with the existence of a prepared annual budget work plan (36%) whilst Savannah region had the least number of facilities (3%). The low level of compliance could be attributed to weak supervision from the Regional Health Directorates as well as poor enforcement of the Public Financial Management Act 2016, Act 921 Public Financial Management Regulations 2019, L.I. 2378, & MOH Accounting, Treasury & Financial (ATF) Reporting, Rules & Instructions.

At the level of management by authority, the Mission/faith-based facilities had the most of their facilities comply with the preparation of the annual budget work plan (51%) with the Government/Public facilities having the lowest percentage of facilities (20%) of its facilities complying with the preparation of the budgeted annual work plans. The attributable reason for the low percentage of compliance at the public/ government facilities is a result of lower-level facilities principally the health centres and the CHPS not being able to get this carried out due to a lack of expertise to do so.

Per trend analysis by facility type, the higher levels of healthcare providers such as the regional hospitals (100%), district hospitals (70%), other district hospitals (53%) and polyclinics (62%) continue to do well in terms of compliances to the preparation of the annual budget work plans. However, the lower-level facilities such as the health centres (29%), clinics/maternity homes (15%) and CHPS (11%) continue to perform poorly in terms of their compliance. This is despite statutory laws and other operational policy documents such as the CHPS National Implementation Guidelines and the Management Manual for Sub-Districts which mandate the production of such annual budget work plans by those in charge at the lower levels on an annual basis. It is clear from the above that the lower levels of healthcare facilities need some support to enable them to comply with these important public financial management requirements.

Table 4.1.2.1. - Facility Budget

	Budgeted annual workplan for current financial year	n
National	23%	1,421
Region		
Ahafo	19%	26
Ashanti	28%	173
Bono	26%	72
Bono East	30%	58
Central	21%	130
Eastern	28%	150
Greater Accra	36%	206
North East	7%	30
Northern	14%	87
Oti	9%	45
Savannah	3%	40
Upper East	17%	75
Upper West	20%	78
Volta	24%	96
Western	19%	102
Western North	11%	53
Managing authority		
Government/public	20%	971
NGO/private	25%	319
Mission/faith-based	51%	108
Quasi government/university	40%	23

Facility type		
Regional hospital	100%	16
District hospital	70%	149
Other general hospital	53%	132
Poly clinic	62%	69
Health centre	29%	452
Clinic/maternity home	15%	262
CHPS	11%	341
Expected facilities		
NCD diagnosis / surgery	59%	366
Non-NCD diagnosis / non-surgery	16%	1,055
Expected facilities		
CEmONC	59%	366
Non-CEmONC	16%	1,055
Expected facilities		
Non-BEmONC lower-level	48%	427
BEmONC lower-level	16%	994
Expected facilities		
EmONC	23%	1,421

Charges for services

User fees

Almost all facilities across the regions have charges for outpatient and inpatient services with the national averages hovering around 99% and 98% respectively. On regional basis analysis, the Eastern region has the least of facilities (96%) that have user fee charges for outpatient services whilst North East region has the least of facilities (79%) that have user fee charges for inpatient services. These percentage inconsistencies across regions require further investigation to unearth the reasons for the inconsistencies. On average, only 21% of facilities across the country had their user fees for outpatient services posted for public consumption whilst 30% of facilities across the country had their user fees for inpatient services posted for public consumption.

Most facilities across the regions do not have written guidelines for user fees, nationally averaging 6%. Greater Accra region was found to have the highest percentage number of facilities with written guidelines for user fees on any service (20%). The low percentages translate into a low level of accountability to the clients these healthcare facilities serve. government/public facilities have the lowest percentage of facilities with written guidelines for user fees (3%) whilst the NGO/private facilities have the highest percentage of facilities with written guidelines for user fees (12%).

Regional hospitals, other general hospitals and polyclinics showed high percentage (100%) of facilities charging user fees for inpatient services. Concerning facilities providing written guidelines for user fees on any services, regional hospitals were found to have the highest percentage of 31% with facilities that provide such written guidelines whilst only 2% of CHPS facilities were found to have provided written guidelines for user fees on any services.

Table 4.2.2.1 – User Fees

	User fees charged for any outpatient services	User fees posted for any outpatient services	User fees posted for any inpatient services	User fees posted for any inpatient services	Written guidelines for user fees for any services	n
.						

National	99%	21%	98%	30%	6%	1,421
Region						
Ahafo	100%	22%	91%	0%	16%	26
Ashanti	99%	19%	100%	31%	3%	173
Bono	100%	14%	100%	50%	4%	72
Bono East	100%	7%	100%	10%	7%	58
Central	98%	16%	94%	31%	2%	130
Eastern	96%	24%	96%	30%	3%	150
Greater Accra	99%	38%	100%	35%	20%	206
North East	100%	24%	79%	16%	8%	30
Northern	98%	10%	98%	10%	0%	87
Oti	100%	18%	100%	20%	2%	45
Savannah	100%	18%	100%	39%	0%	40
Upper East	98%	9%	80%	14%	2%	75
Upper West	100%	31%	100%	18%	7%	78
Volta	99%	32%	96%	32%	11%	96
Western	99%	17%	100%	17%	1%	102
Western North	100%	8%	100%	9%	0%	53
Managing authority						
Government/public	99%	19%	95%	35%	3%	971
NGO/private	99%	26%	99%	26%	12%	319
Mission/faith-based	99%	25%	100%	35%	10%	108
Quasi government/university	100%	9%	100%	26%	6%	23
Facility type						
Regional hospital	94%	21%	100%	26%	31%	16
District hospital	98%	36%	97%	41%	11%	149
Other general hospital	99%	32%	100%	27%	20%	132
Poly clinic	99%	48%	100%	49%	9%	69
Health centre	99%	25%	98%	29%	3%	452
Clinic/maternity home	99%	23%	99%	26%	7%	262
CHPS	99%	13%	75%	0%	2%	341
Expected facilities						
NCD diagnosis / surgery	99%	34%	99%	32%	17%	366
Non-NCD diagnosis / non-surgery	99%	18%	97%	25%	3%	1,055
Expected facilities						
CEmONC	99%	34%	99%	32%	17%	366
Non-CEmONC	99%	18%	97%	25%	3%	1,055
Expected facilities						
Non-BEmONC lower-level	99%	31%	99%	31%	14%	427
BEmONC lower-level	99%	18%	96%	26%	3%	994
Expected facilities						
EmONC	99%	21%	98%	30%	6%	1,421

User fees for primary care services (refer to table 4.2.2.2)

Outpatient consultation services for adults

Nationally, 97% of facilities reported charging outpatient consultation services for adults. Apart from Savannah and Northern regions that recorded a marginally low percentage of 83% and 88% respectively, all others recorded a significantly high percentage of facilities charging outpatient consultation services for adults ranging between 90% to 100%.

Outpatient consultation services for children

Nationally, 96% of facilities nationwide reported charging outpatient consultation services for children. While most regions had 95% or more of their facilities having charges for outpatient

consultation services for children, four regions namely, Savannah (83%), Northern (84%), Eastern (91%) and Oti (92%) recorded lower percentages of facilities with charges for out-patient services for children.

On facility type, there were charges for outpatient consultation services for children across all facility types with the lowest being the regional hospitals recording 94%. This must however be further investigated to understand the reasons why some services do not have user fees attached to them considering the level of caregiving these regional hospitals belong to and the fact that all prescribed services rendered have prescribed charges assigned to them in line with GHS and Teaching Hospital Act 1996, Act 525 section 3(2)(k) and fees (Miscellaneous Provisions) Act 2022, Act 1080.

Any contraceptive commodities

Nationally, 69% of facilities charge user fees for any contraceptive commodities with the Ahafo region recording the lowest percentage of facilities charging for contraceptive commodities (48%) whilst the Upper West region emerged as the region with the highest percentage of facilities charging for contraceptive commodities (88%).

HIV Diagnostic Tests

In all, 19% of facilities nationwide charged user fees for HIV diagnostic tests. Facilities in the Bono region do not charge user fees for HIV diagnostic tests whilst 45% of facilities in the Oti region charge user fees for HIV diagnostic tests representing the highest in the category. Six percent (6%) of facilities with government/public charges user fees for HIV diagnostic tests whilst NGO/private facilities had the highest percentage (45%) of facilities charging user fees for HIV diagnostic tests. Regional hospitals do not charge user fees for HIV diagnostic tests whilst other general hospitals had 41% of their facilities charging user fees for HIV diagnostic tests.

Malaria RDT

Overall, 26% of facilities nationwide charge user fees for Malaria RDT with the Savannah region recording the lowest percentage of 5% and the Oti region recording the highest percentage of 58%. Also, 55% of NGO/private facilities had the highest percentage (45%) of facilities charging user fees for Malaria RDT whilst government/public facilities had the lowest percentage of 14% who charge for these services. Subsequently, 14% of CHPS facilities charged user fees for Malaria RDT representing the lowest whilst Clinic/Maternity Home facilities had the highest percentage recording 50% charging user fees for Malaria RDT.

Financial audit

Nationally 55% of facilities receive copies and feedback of annual external financial audits which is mandatory for BMCs audited to have the right to receive final findings of the audit carried out on the BMC. Bono East (76%), Ashanti Region (72%), Volta (69%), Central (61%), Greater Accra Region (61%) and Bono (60%) were the regions that had the most facilities above the national average (55%) to have received copies of the annual audited financial audit. All regional hospitals (100%) received an annual external financial audit, followed keenly by district hospitals with 97% of facilities receiving an annual external financial audit. CHPS recorded the lowest with 42%. In practice, annual audited reports of CHPS can be assessed at the District Health Directorates they are situated in. This is to make up for the lack of finance officers at those levels as well as the auditing cost of assessing these facilities.

Table 4.2.3.1 – Financial Audit

.	Receive an annual external financial audit	n
National	55%	1,421
Region		
Ahafo	43%	26
Ashanti	72%	173
Bono	60%	72
Bono East	76%	58
Central	61%	130
Eastern	51%	150
Greater Accra	61%	206
North East	45%	30
Northern	36%	87
Oti	34%	45
Savannah	46%	40
Upper East	48%	75
Upper West	24%	78
Volta	69%	96
Western	53%	102
Western North	49%	53
Managing authority		
Government/public	53%	971
NGO/private	53%	319
Mission/faith-based	78%	108
Quasi government/university	68%	23
Facility type		
Regional hospital	100%	16
District hospital	97%	149
Other general hospital	77%	132
Poly clinic	93%	69
Health centre	70%	452
Clinic/maternity home	45%	262
CHPS	42%	341
Expected facilities		
NCD diagnosis / surgery	84%	366
Non-NCD diagnosis / non-surgery	49%	1,055
Expected facilities		
CEmONC	84%	366
Non-CEmONC	49%	1,055
Expected facilities		
Non-BEmONC lower-level	69%	427
BEmONC lower-level	51%	994
Expected facilities		
EmONC	55%	1,421

Accountability for equipment and furnishing (refer to table 4.2.3.2)

In all 10% of health facilities nationwide had an inventory of equipment. Apart from the Greater Accra Region which had 29% of their facilities having an inventory for equipment, the remainder of fifteen regions had facilities that had an inventory for equipment below 10% with the worst performing regions being Upper West (3%), Savannah (2%) and Upper West (2%). Whereas 29% of Quasi government/university facilities had an inventory of equipment in place, only 3% of Government/Public facilities had them. Averagely, 31% of hospitals had in place an inventory for equipment with the remaining levels of care having less than 20% of their facilities having in place an inventory for equipment with the worst performing levels of facility of care being the health centres (6%) and CHPS (1%). A plausible reason for this low performance could be that most of the facilities may not have trained estate managers to manage their inventory of equipment and furniture.

Staffing structure (refer to table 4.3.1.1)

Out of the facilities survey, 65% of facilities nationwide have a staffing plan with allocated numbers of staff by qualification. Upper East region emerged as the region with the most facilities having staffing plans with allocated numbers of staff by qualification (95%) whilst the Volta Region emerged as the region with the lowest percentage of facilities that had staffing plans with allocated numbers of staff by qualification (18%). All regional hospitals had a staffing plan with allocated numbers of staff by qualification in place. However, CHPS level had the least number of facilities (55%) that had staffing plans with allocated numbers of staff by qualification in place, understandably largely due to their size.

Staff credentials and supervision (refer to table 4.3.1.2)

Overall, 81% of facilities nationwide reported external supervision visits within the past three months but documentation on external supervision visits during the past 12 months was observed in 40% of the facilities across the country. For all regions, the percentage of facilities reporting external supervision visits within the past three (3) months surpassed the percentage of facilities that documented such external supervision visits during the past 12 months. District hospitals (93%) had the highest percentage of facilities reporting external supervision visits within the past three months followed by polyclinics (92%) with clinic/maternity homes (63%) having the least. Documentation observed on external supervision visits during the past 12 months ranged from 75% in regional hospitals to 26% in clinic/maternity homes.

Management Systems for Infection Prevention and Control (refer to table 4.4.1.1)

Guidelines for Infection Prevention and Control

Nationally, only 28% of facilities had guidelines for infection prevention and control (IPC). Out of the sixteen regions, Western North had the lowest facilities with IPC guidelines (2%). Five regions (Ashanti, Bono, Greater Accra, Upper West, and Volta) had 33% of its facilities with IPC guidelines in place. It was recorded that 69% of regional hospitals also have IPC guidelines while only 17% of CHPS facilities and less than 20% of clinic/maternity homes have the guidelines.

Guidelines for isolation

Nationally, only 7% of facilities have guidelines for isolation. Of these, 57% of regional hospitals and 35% of district hospitals have isolation guidelines, whereas only 2% of CHPS have isolation guidelines.

Guidelines for respiratory-based transmission precautions

Nationally, 3% of facilities surveyed have guidelines for respiratory-based transmission precautions. Facilities in six out of the sixteen regions did not have any guidelines for respiratory-based transmission precautions. These guidelines are more likely to be found in higher-level government facilities i.e. regional hospitals (13%), district hospitals (12%) and polyclinics (17%).

Staff trained in a certified infection prevention and control course

Nationally, one out of four (25%) of facilities surveyed have staff trained in a certified infection prevention and control course. Less than 20% of facilities in seven regions (Central, Eastern, Northern, Savannah, Volta, Western, and Western North) have their staff trained. All regional

hospitals and 85% of district hospitals have staff trained in a certified infection prevention and control course. Only 14% of CHPS have any trained staff.

At least one dedicated IPC staff member

Nationally, 29% of facilities have at least one dedicated IPC staff member. Seven out of sixteen regions have less than 10% of their facilities having a dedicated IPC staff in place. All regional hospitals, 91% of district hospitals and 66% of Polyclinics have at least one dedicated IPC staff member in place. Additionally, 35% of Health Centres, 26% of Clinics/Maternity Homes and 15% of CHPS have at least one dedicated IPC staff member in place.

An IPC technical committee

Nationally, nearly one in five (18%) of facilities have an infection prevention and control technical committee (IPCTC). Three (Eastern, Volta and Western North) out of sixteen regions have less than 10% of their facilities with IPCTC. At the higher levels of care, 88% of regional hospitals, 80% of district hospitals and 54% of polyclinics have an IPCTC in place. For the lower levels of care, 22% of health centres, 15% of clinics/maternity homes and 4% of CHPS have IPCTC in place.

Multidisciplinary meetings to review IPC results

Nationally, only 17% of facilities have held multidisciplinary meetings to review IPC results. Less than 10% of facilities in five regions (Northern, Oti, Upper West, Volta, Western North) out of the sixteen regions held multidisciplinary meetings to review IPC results. Also, 56% of regional hospitals, 68% of district hospitals and 42% of polyclinics held multidisciplinary meetings to review IPC results. With the lower levels, 14% of Health Centres, 15% of Clinics/Maternity Homes and 8% of CHPS held multidisciplinary meetings to review IPC results.

A meeting of the IPC committee or with the person responsible for IPC within the past 6 months

Nationally, 19% of facilities have had a meeting of the IPC committee or with the person responsible for IPC within the past 6 months. Less than 10% of facilities in two (Eastern and Western North) out of the sixteen regions have had a meeting of the IPC committee or with the person responsible for IPC within the past 6 months. 81% of regional hospitals, 76% of district hospitals and 52% of polyclinics have had a meeting of the IPC committee or with the person responsible for IPC within the past 6 months.

Emergency preparedness systems

A written fire safety plan

Nationally 11% of facilities have a written fire safety plan. Whereas 1% of facilities in Western North have a written fire safety plan, no facility in North-East and Savannah reported the same. Less than 10% of facilities in eleven regions have a written fire safety plan in place. Also, 37% of regional and district hospitals and 10% of polyclinics have a written safety plan in place. Only 8% of health centres, 12% of clinics/maternity homes and 1% of CHPS facilities have a written safety plan in place.

A written emergency response plan for outbreaks

Nationally, 7% of facilities have a written emergency response plan for outbreaks. Only 43% of regional hospitals, 33% of district hospitals and 19% of polyclinics have a written emergency response plan for outbreaks. Four percent (4%) of health centres, 5% of clinics/maternity homes and 1% of CHPS also have a written emergency response plan for outbreaks in place.

Written emergency response plan for natural disasters

Nationally, 2% of facilities have a written emergency response plan for natural disasters. No facility in Bono, North East, Oti, Savannah, Upper West and Western North had a written emergency response plan for natural disasters. Only 19% of regional hospitals and 6% of district hospitals have a written emergency response plan for natural disasters.

A practice drill/simulation exercise for any emergency plans in the past 12 months

Nationally, 12% of facilities had a practice drill/simulation exercise for any emergency plans in the past 12 months. Less than 10% of facilities in eleven regions have practised drill/simulation exercises for any emergency plans in the past 12 months. 43% of regional hospitals, 38% of district hospitals and 23% of polyclinics practised drill/simulation exercises for any emergency plans in the past 12 months.

A strategy to meet increased staffing needs in an emergency

Nationally 30% of facilities have a strategy to meet increased staffing needs in an emergency. Less than 10% of facilities in three regions (Oti, Savannah, and Volta) have a strategy to meet increased staffing needs in an emergency. For the higher levels of care, 57% of regional hospitals, 70% of district hospitals and 48% of polyclinics have a strategy to meet increased staffing needs in an emergency. Also, 34% of both health centres and clinics/maternity homes and 14% of CHPS facilities have a strategy to meet increased staffing needs in an emergency.

Table 4.4.2.1. – Emergency Preparedness Systems

.	A written fire safety plan	A written emergency response plan for outbreaks	Written emergency response plan for natural disasters	A practice drill/simulation exercise for any emergency plans in past 12 months	A strategy to meet increased staffing needs in an emergency	n
National	11%	7%	2%	12%	30%	1,421
Region						
Ahafo	14%	14%	4%	16%	11%	26
Ashanti	23%	4%	1%	19%	27%	173
Bono	15%	11%	0%	15%	34%	72
Bono East	10%	6%	5%	13%	61%	58
Central	4%	5%	2%	8%	16%	130
Eastern	7%	7%	1%	8%	25%	150
Greater Accra	28%	21%	3%	33%	58%	206
North East	0%	0%	0%	1%	18%	30
Northern	2%	1%	1%	1%	19%	87
Oti	2%	1%	0%	2%	5%	45
Savannah	0%	1%	0%	0%	6%	40
Upper East	5%	3%	2%	6%	53%	75
Upper West	5%	3%	0%	1%	33%	78
Volta	4%	3%	1%	2%	4%	96
Western	4%	2%	1%	7%	19%	102
Western North	1%	0%	0%	6%	24%	53
Managing authority						
Government/public	3%	4%	0%	4%	21%	971
NGO/private	26%	11%	2%	27%	46%	319
Mission/faith-based	26%	15%	5%	25%	48%	108
Quasi government/university	37%	19%	23%	41%	65%	23
Facility type						
Regional hospital	37%	43%	19%	43%	57%	16
District hospital	37%	33%	6%	38%	70%	149
Other general hospital	43%	24%	8%	47%	64%	132
Poly clinic	10%	19%	0%	23%	48%	69

Health centre	8%	4%	1%	7%	34%	452
Clinic/maternity home	12%	5%	1%	16%	34%	262
CHPS	1%	1%	0%	1%	14%	341
<hr/>						
Expected facilities						
NCD diagnosis / surgery	38%	26%	7%	43%	64%	366
Non-NCD diagnosis / non-surgery	5%	3%	0%	6%	23%	1,055
<hr/>						
Expected facilities						
CEmONC	38%	26%	7%	43%	64%	366
Non-CEmONC	5%	3%	0%	6%	23%	1,055
<hr/>						
Expected facilities						
Non-BEmONC lower-level	32%	20%	5%	35%	56%	427
BEmONC lower-level	5%	3%	0%	5%	23%	994
<hr/>						
Expected facilities						
EmONC	11%	7%	2%	12%	30%	1,421

Quality assurance systems

External assessment against standards (refer to table 4.5.1.1)

Participating in any system of external assessment against standards

Nationally 70% of all facilities participated in any system of external assessment against standards. All facilities in the Ahafo Region (100%) participated in a system of external assessment against standards. On a facility-type basis, all regional hospitals and 99% of polyclinics participated in a system of external assessment against standards. Meanwhile, 78% of health centres, 72% of clinics/maternity homes and 58% of CHPS facilities participated in any system of external assessment standards.

With any accreditation or certification conducted in the last 3 years

Nationally 69% of facilities had any accreditation or certification conducted in the last 3 years. All regional hospitals, 94% of district hospitals and 96% of polyclinics had accreditation or certification conducted in the last 3 years. Under facility types 56% of CHPS facilities had accreditation or certification conducted in the last 3 years.

Currently certified through an accreditation system for any services

Nationally, 64% of facilities surveyed are currently certified through an accreditation system for any services. Based on facility types, all regional hospitals, 90% of district hospitals and 93% of polyclinics are currently certified through an accreditation system for any services. Slightly above half (54%) of all CHPS facilities are currently certified through an accreditation system for any services.

Currently licensed or registered with government authority for any services

Nationally 52% of all facilities are currently licensed or registered with government authority for any services. All facilities in Ahafo are currently licensed or registered with any government authority for any services whilst only 9% of facilities in the Volta region are currently licenced. Under facility types, all regional hospitals, 78% of district hospitals and 75% of polyclinics are currently licensed with any government authority for any services. In addition, only 35% of CHPS are currently licensed with any government authority for any services.

Currently certified through the national external quality assurance (NEQA) system for any services

Nationally 13% of facilities are currently certified through the national external quality assurance (NEQA) system for any services. Six out of the 16 regions had less than 10% of their facilities currently certified through NEQA. Whereas 30% of facilities under mission/faith-based are NEQA certified, only 9% of government/public are also NEQA certified. Under facility types, 44% of regional hospitals, 36% of district hospitals and 23% of polyclinics are currently certified through NEQA. Nationwide only 6% of CHPS facilities are currently certified through NEQA.

Internal quality assurance and improvement systems (refer to table 4.3.1.2)

A routine quality assurance process for any service area

Among the facilities survey, 54% of health facilities had routine quality assurance processes for any service area offering routine quality assurance processes. Whereas 77% of Facilities in Greater Accra had this in place, as low as 12 % of facilities in Volta had a routine quality assurance process for any service area. Based on facility types all regional hospitals, 92% of district hospitals and 79% of polyclinics had routine quality assurance processes for any service area. Also, 63% of health centres, 57% of clinics/maternity homes and 39% of CHPS facilities had routine quality assurance processes for any service area as well.

A quality assurance committee (QAC) that met in the past 3 months

Nationwide, a quarter (25%) of all facilities had in place a quality assurance committee that met in the past 3 months. Based on facility types, 94% of regional hospitals, 78% of district hospitals and 49% of polyclinics had a quality assurance committee that met in the past 3 months

Documentation showing that quality assurance information was reviewed

Nationally, 16% of facilities had documentation showing that quality assurance information was reviewed. Based on facility types, 69% of regional hospitals, 59% of district hospitals and 38% of polyclinics had documentation showing that quality assurance information was reviewed. Only 8% of CHPS facilities had documentation showing that quality assurance information was reviewed.

Dedicated budget line for quality improvement activities

Nationally, one in five (20%) of facilities had a dedicated budget line for quality improvement activities. Whereas 40% of facilities in Greater Accra had a dedicated budget line for quality improvement activities, only 3% of facilities in Savannah had a dedicated budget line for quality improvement activities. On facility type, 88% of regional hospitals, 76% of district hospitals and polyclinics had a dedicated budget line for quality improvement of activities. In all 6% of CHPS facilities nationally had a dedicated budget line for quality improvement activities.

System for eliciting and reviewing client opinion on facility services

Nationally, 21% of facilities had a system for eliciting and reviewing client opinions on facility services. Whereas 44% of facilities in Greater Accra and Bono had this in place, as low as 2% in North-East had a system for eliciting and reviewing client opinion on facility services. Based on facility types, 81% of regional hospitals, 56% of district hospitals and 43% of polyclinics had a system for eliciting and reviewing client opinions on facility services.

Generally, the survey data indicated that all facilities nationwide performed poorly in indicators under internal quality assurance and improvement systems. These were more prevalent, especially

in the new regions and this may be due to capacity challenges which should require more attention and emphasis be placed on improving the systems in these regions.

Case review systems (refer to table 4.5.2.1)

Facilities offering inpatient services with a formal case review system

Nationally, 73% of facilities offering inpatient services have a formal case review system. All facilities in Ahafo, 90% in the North-East and 91% in the Volta regions have facilities offering inpatient services with a formal case review system in place. Based on facility types, 94% of regional hospitals, 85% of district hospitals and 91% of polyclinics offer inpatient services with a formal case review system in place.

Facilities offering inpatient services with a formal death review system for any deaths.

Nationally, 56% of facilities offering inpatient services have a formal death review system for any deaths in place. Based on facility types, 94% of regional hospitals, 90% of district hospitals and 67% of polyclinics had facilities offering inpatient services with a formal death review system for any deaths in place.

Facilities offering inpatient services with a Neonatal death review system

Nationwide, close to half (47%) of facilities offering inpatient services had a neonatal death review system in place. Based on facility types, 94% of regional hospitals, 90% of district hospitals and 56% of polyclinics emerged as offering inpatient services with a neonatal death review system for any deaths in place. About 20% of health centres and 14% of clinics/maternity homes also emerged as offering inpatient services with a neonatal death review system for any death in place.

Facilities offering inpatient services with a Maternal death review system.

Nationally, 43% of facilities offering inpatient services had a maternal death review system in place. Comparing by facility type, 94% of regional hospitals, 89% of district hospitals and 52% of polyclinics emerged as offering inpatient services that had a maternal death review system in place. 15% of health centres and 11% of clinics/maternity homes facilities also emerged as offering inpatient services with a maternal death review system in place.

All facilities offering maternal health services are expected to have a maternal and neonatal death review system in place, either institutionalized at the facility level or organized and supervised at the district health management level. The lack of these systems in some regional and district hospitals is a source of concern and needs to be investigated. Polyclinics which do not undertake delivery services may not necessarily have this system institutionalized.

Adverse event monitoring (refer to table 4.5.2.2.)

System and guidelines to monitor adverse events.

Nationally, 29% of facilities offering inpatient services had systems and guidelines to monitor adverse events in place. Six regions (North-East, Northern, Savannah, Upper East, Western and Western North) had less than 20% of facilities with systems and guidelines to monitor adverse events in place. Comparing by facility type, more than half of regional hospitals (57%) had systems and guidelines to monitor adverse events, as against 49% of district hospitals, 37% of polyclinics and 33% of other general hospitals.

System and guidelines to monitor nosocomial infection

Nationally, 17% of facilities offering inpatient services had the systems and guidelines to monitor nosocomial infections. Volta (58%) had more than half of the facilities with the systems and guidelines to monitor nosocomial infections, about thrice the national average. Northern, Oti and Savannah regions had no facilities offering inpatient services with the systems and guidelines to monitor nosocomial infections.

Monitoring quality of surgical care (refer to table 4.5.2.3)

Facilities offering inpatient surgical services with Systems and guidelines to monitor adverse events related to surgery.

Nationally, 20% of all facilities offering inpatient surgical services had the systems and guidelines to monitor adverse events related to surgery in place. Western North and Savannah also emerged as the regions with none of their facilities having the systems and guidelines to monitor adverse events related to surgery in place. Based On facility by type, 50% of regional hospitals, 33% of district hospitals and 15% of polyclinics offering inpatient surgical services have systems and guidelines to monitor adverse events related to surgery in place.

Monitoring prescribing practices and adverse reactions to medicines (refer to table 4.5.3.1)

General prescription practices, such as numbers and combinations of medicines prescribed

The results showed that 12% of facilities were found to have in place systems and guidelines for monitoring general prescription practices, such as numbers and combinations of medicines prescribed. Ten (10) out of the 16 regions had less than 10% of their facilities having in place such systems and guidelines. Greater Accra (30%) was the only region that had more than 20% of its facilities having in place such systems and guidelines. Also, 44% of all regional hospitals and only 4% of CHPS emerged as having systems and guidelines in place for monitoring general prescription practices, such as numbers and combinations of medicines prescribed.

Prescription practices for specific types of medicines such as pain medicine or antibiotics

The results again revealed that 12% of the facilities were found to have systems and guidelines for monitoring prescription practices for specific types of medicines such as pain medications or antibiotics. Eleven (11) out of the 16 regions had less than 10% of their facilities have such systems and guidelines in place. Greater Accra region was the only region that had more than 20% of its facilities such systems and guidelines in place. In addition, 44% of all regional hospitals and 34-35% of other general and district hospitals have the systems and guidelines for monitoring in place, whereas only 4% of CHPS have such systems in place.

Medicine utilization, such as comparing medicine use to the types of patients being treated

12% of facilities nationally had in place the systems and guidelines for monitoring medicine utilization, such as comparing medicine used to the types of patients being treated. Ten (10) out of the 16 regions had less than 10% of their facilities having in place these systems and guidelines, with the Greater Accra region being the only one with more than 20% of its facilities with this system in place. Also, only 38% of all regional hospitals, 35% of district hospitals and 33% of other general hospitals have these systems and guidelines in place.

Adverse reactions to medicines

11% of facilities assessed had in place systems and guidelines for monitoring adverse reactions to medicines. Nine (9) regions out of 16 regions had less than 10% of their facilities having in-place

systems and guidelines for monitoring adverse reactions to medicines with the worst performing region being the Western region with only 1% of its facilities having in-place such systems. Furthermore, 81% of all regional hospitals had in place systems and guidelines for monitoring adverse reactions to medicines whilst only 4% of CHPS had these systems in place.

Monitoring systems for IPC and hand hygiene (refer to table 4.5.4.1)

Nationally, 31% of facilities surveyed, composed mostly of hospitals and polyclinics have in place a system for monitoring IPC. Monitoring of IPC or hand hygiene among health workers using a specified framework was low (15% and 26% respectively). Similarly low was any such monitoring in the past twelve months for both IPC and hand hygiene among health workers, all below 35% of facilities. Availability was however higher amongst hospitals and polyclinics than in the lower-level facilities.

Monitoring Systems for Laboratory Service Quality

An established routine external quality assessment mechanism for at least one laboratory test

Nationally, the percentage of facilities that offered laboratory services with an established routine external quality assessment mechanism for at least one laboratory test was 16%. Ten (10) regions recorded percentages below the national average that offered laboratory services with established routine external quality assessment mechanisms for at least one laboratory test with the worst performing regions being North-East (3%), Northern (2%), and Savannah (1%). Analysing by facility levels of service delivery category, regional hospitals (74%) had the highest percentages of facilities with established routine external quality assessment mechanisms for at least one laboratory test. District hospitals (68%), other general hospitals (42%), polyclinics (27%), clinic/ maternity homes (14%), and health centres (12%) followed keenly. CHPS (2%) however, had the lowest percentage of facilities that offered laboratory services with an established routine external quality assessment mechanism for at least one laboratory test and this is understandable because CHPS by their establishment mandate are not even required to render such laboratory services.

Table 4.5.5.1. - Monitoring systems for laboratory service quality

.	An established routine external quality assessment mechanism for at least one laboratory test	n
National	16%	1,223
Region		
Ahafo	6%	21
Ashanti	19%	152
Bono	13%	72
Bono East	15%	57
Central	23%	105
Eastern	10%	124
Greater Accra	29%	200
North East	3%	29
Northern	2%	83
Oti	17%	31
Savannah	1%	39
Upper East	25%	55
Upper West	12%	67
Volta	27%	52
Western	10%	89
Western North	4%	47
Managing authority		

Government/public	10%	809
NGO/private	24%	291
Mission/faith-based	34%	103
Quasi government/university	31%	20
Facility type		
Regional hospital	74%	16
District hospital	68%	149
Other general hospital	42%	128
Poly clinic	27%	69
Health centre	12%	402
Clinic/maternity home	14%	216
CHPS	2%	243
Expected facilities		
NCD diagnosis / surgery	49%	362
Non-NCD diagnosis / non-surgery	8%	861
Expected facilities		
CEmONC	49%	362
Non-CEmONC	8%	861
Expected facilities		
Non-BEmONC lower-level	40%	411
BEmONC lower-level	8%	812
Expected facilities		
EmONC	16%	1,223

Health information staff and data quality processes

Designated full-time staff for managing facility data and reporting.

Amongst facilities surveyed (n=1,421), 33% had designated full-time staff for managing facility data and reporting. Greater Accra and Upper East regions were the regions (50%) with the greatest number of facilities to have full-time staff for this task whilst Northern, Savannah, and Volta regions had less than 20% of their facilities having such full-time personnel in place for these tasks.

All regional and district hospitals had designated full-time staff for managing facility data and reporting, whilst that for polyclinics and other general hospitals was 93% and 66% respectively. This shows the commitment of the public sector health system in improving data management. Availability was however much lower at the health centre and CHPS level, mainly because data management at these levels are supported by data managers at the district health directorates. Similarly, the availability of data management personnel at the mission/faith-based facilities and quasi-government/university facilities which are more aligned to government settings were relatively high (71% and 70% respectively), as compared to NGO/private facilities (46%).

Staff training on data analysis and use

Almost two-fifth (38%) of facilities nationwide had staff trained in data analysis and use. Greater Accra region had the greatest percentage of facilities (60%) that had staff trained on data analysis and use, while Volta region recorded the lowest percentage of facilities (9%) that had staff trained on data analysis and use. The percentage of staff trained in data analysis and use at the regional and district hospitals were 81% and 73% respectively whilst CHPS level had only 28% that had staff trained in this. For staff trained in data analysis and use, Mission/Faith-based facilities had the greatest percentage of facilities with trained staff, followed keenly by quasi-government/university facilities (50%), NGOs/private facilities (47%) and government/public facilities (33%).

Percentage of facilities with routine system/process within the facility for checking the quality of data compiled for reports

Nationally, 74% of facilities had in place routine systems/processes within the facility for checking the quality of data compiled for reports. All other regions performed well except Northern, Ahafo, Bono and Bono East regions which were all below 70% as against the national target of 100%. All regional hospitals and 94% of district hospitals have a routine system/process within the facility for checking the quality of data compiled for reports. Data validation meeting (monthly and quarterly) is the main system for checking data quality in the Service at the facility level. The high national average indicates that health facilities conduct regular data validation meetings.

Written policy or guidelines for data quality checking

Only 17% of facilities nationwide had written policies or guidelines for data quality checking. Volta region was the only region with more than 50% of all facilities having written policy or guidelines for data quality checking in place whilst, three regions (Oti, Western and Western North) had less than 10% of all their facilities having this in place. Also, 88% of regional hospitals and 55% of district hospitals had written policies or guidelines for data quality checking.

Table 4.6.1.1. - Health Information Staff and Data Quality Processes

	Designated fulltime staff for managing facility data and reporting	Staff trained on data analysis and use	Percentage of facilities with routine system/process within the facility for checking the quality of data compiled for reports	Written policy or guidelines for data quality checking	n
National	33%	38%	74%	17%	1,421
Region					
Ahafo	35%	19%	51%	23%	26
Ashanti	38%	35%	73%	17%	173
Bono	40%	55%	67%	17%	72
Bono East	50%	50%	66%	19%	58
Central	21%	38%	79%	11%	130
Eastern	27%	38%	77%	15%	150
Greater Accra	58%	60%	70%	27%	206
North East	26%	34%	72%	11%	30
Northern	12%	25%	55%	8%	87
Oti	25%	30%	82%	26%	45
Savannah	17%	39%	81%	11%	40
Upper East	53%	45%	81%	11%	75
Upper West	25%	26%	89%	20%	78
Volta	19%	9%	79%	53%	96
Western	24%	34%	72%	2%	102
Western North	28%	39%	82%	2%	53
Managing authority					
Government/public	25%	33%	78%	16%	971
NGO/private	46%	47%	62%	17%	319
Mission/faith-based	71%	60%	77%	30%	108
Quasi government/university	70%	50%	65%	25%	23
Facility type					
Regional hospital	100%	81%	100%	88%	16
District hospital	100%	73%	94%	55%	149
Other general hospital	66%	56%	78%	36%	132
Poly clinic	93%	56%	96%	39%	69
Health centre	43%	42%	82%	21%	452
Clinic/maternity home	38%	42%	56%	8%	262
CHPS	12%	28%	75%	11%	341
Expected facilities					
NCD diagnosis / surgery	78%	61%	84%	42%	366
Non-NCD diagnosis / non-surgery	25%	34%	72%	13%	1,055
Expected facilities					
CEmONC	78%	61%	84%	42%	366
Non-CEmONC	25%	34%	72%	13%	1,055
Expected facilities					
Non-BEmONC lower-level	65%	55%	78%	34%	427
BEmONC lower-level	25%	34%	73%	13%	994
Expected facilities					

The GHS has posted Health Information Officers (HIOs) to most hospitals and directorates across the country. The health information officers as part of their professional training are equipped with skills in data analysis and reporting. There is inadequate clearance for the recruitment of qualified health information officers by MoH and the limited number available to the Ghana Health Service is assigned to only the higher level of facilities where demand for their services is high. This inadequacy affects the supply of HIOs to the bigger health centres especially.

Reports submitted externally (refer to table 4.6.1.2)

Nationally, as high as 98% of facilities submitted routine reports/summary statistics to the next reporting level at least every 3 months. All the regions reported more than 90% of their facilities complying with this, with six (6) regions - Bono, Central, North-East, Oti, Upper West, and Western North recording 100%. All the mission/faith-based facilities emerged as having regularly submitted routine reports/summary statistics to the next reporting level at least every 3 months. The quasi-government/university had the least number of facilities (90%) to have submitted routine reports/summary statistics to the next reporting level at least every 3 months. All facilities emerged as having submitted routine reports/summary statistics to the next reporting level at least every 3 months. Clinics/maternity homes had the least number of facilities (93%) to have submitted routine reports/summary statistics to the next reporting level at least every 3 months.

The high performance of facilities in submitting routine reports/summary statistics to the next reporting level at least every 3 months could be a result of the ranking of health facilities by report completeness and timeliness in DHIMS 2.

Unique identifiers and individual patient records - outpatient services (refer to table 4.6.2.1)

Use a unique patient identifier for outpatient curative care services.

Nationally, 96% of facilities were found to use unique patient identifiers for outpatient curative care services. Apart from the Western North region with less than 90% of its facilities using unique patient identifiers for outpatient curative care services, all other regions recorded between 90% to 100% of their facilities complying with this activity. Ahafo, Savannah and Upper West regions had all their facilities using unique patient identifiers for outpatient curative care services.

Use individual patient records (paper or electronic) for outpatients.

Nationally, 98% of facilities emerged as using individual patient records (paper or electronic) for outpatients. All regions recorded between 94% to 100% of their facilities using the individual patient records (paper or electronic) for outpatients with Ahafo, Bono, Savannah, and Upper West regions having all facilities using these individual patient records (paper or electronic) for outpatients.

Use only standardized electronic individual patient records for outpatients

From the survey, 40% of facilities nationwide were found to use only standardized electronic individual patient records for outpatients. The use of only standardized electronic individual patient records for outpatients ranged between 0% and 65%. No facility in the Oti and Upper West regions uses only standardized electronic individual patient records for outpatients. No CHPS facility also uses only standardized electronic individual patient records for outpatients. Quasi

government/university led in the percentage of facilities that used only standardized electronic individual patient records for outpatients (58%).

Use only standardized paper individual patient records for outpatients

Nationally, 82% of facilities use only standardized paper individual patient records for outpatients with a range of 98% for (Upper West) to 66% for (Greater Accra and North-East) regions. Most CHPS facilities were found to use only standardized paper individual patient records for outpatients (94%).

Unique identifiers and individual patient records - inpatient services (refer to table 4.6.2.2)

Maintain a unique patient ID

The survey results showed that 99% of all facilities nationwide were found to have maintained unique patient IDs. Eleven (11) regions had 100% of their facilities maintaining unique patient IDs. Five regions (Ashanti, Central, Eastern, Greater Accra and Western) had between 95% to 99% of their facilities maintaining a unique patient ID with the Central region being the lowest (95%) in place.

Use the same unique patient ID for the patient for both in- and outpatient services.

Almost all facilities nationwide were found to have maintained the same unique patient IDs for the patient for both in- and outpatient services. All regions except two regions Ashanti (98%), and Central (94%) recorded 100% of their facilities maintaining the same unique patient IDs for the patient for both in- and outpatient services.

Have standardized individual patient records (paper or electronic) used for inpatients.

Almost all facilities nationally had standardized individual patient records (paper or electronic) used for inpatients. Polyclinics (98%) and clinic/maternity homes (99%) were the facility types that attained less than 100% of their facilities having these standardized records in use.

Use only electronic individual patient records for inpatients.

From the results, 41% of facilities nationally were found to use only electronic individual patient records for inpatients. No facilities in Ahafo, Oti, Upper West and Volta used only electronic individual patient records for inpatients. Regional, general hospitals and polyclinics fared similarly across facilities around the national average of 41%. District hospitals fared below the national average percentage of 41%.

Use paper individual patient records for inpatients.

The survey revealed that 40% of facilities nationally used paper individual patient records for inpatients. None of the facilities surveyed in the Volta region (0%) used paper individual patient records for inpatients. However, 82% in Upper West used paper individual patient records for inpatients. Four other regions (Ahafo, Bono East, North-East and Upper East) also had more than 50% of their facilities use paper individual patient records for inpatients. Also, no regional hospital (0%) used paper individual patient records for inpatients.

Referral records (refer to table 4.6.3.1)

68% of facilities nationally emerged as having maintained records for referral out and 69% routinely or sometimes received feedback on referrals out. Greater Accra region had both the highest number of facilities which maintained records for referral out (82%) and at the same time routinely or sometimes received feedback on referrals out (93%). Under management by authority, quasi government/university facilities led in percentages for facilities that maintained records for referral out (90%) and maintained routinely or sometimes received feedback on referrals out (84%). For facility by type levels, the greatest percentage number of facility types that maintained records for referral out was regional hospitals (94%) whilst the least was the CHPS (61%). District hospitals topped in percentages in receiving feedback routinely whilst CHPS recorded the least in receiving feedback routinely.

Overall Health Service Availability and Readiness

Total number of inpatient beds

The parameters considered under “beds” were actual in-patient beds, official authorized inpatient beds and dedicated maternity beds. The actual bed count was understood to be the number of beds sighted and physically counted in each facility; the official authorized bed number was the ascribed bed capacity of the facility as stated in original project briefs and design specifications. The actual inpatient beds were 26,172, 30,471 for official authorized beds and 6,465 dedicated maternity beds.

The three regions with the highest number of inpatient beds (actual) were Greater Accra, 4,199, Ashanti, 3,708 and Eastern 2,755. The regions with the smallest inpatient beds were North East, Ahafo and Oti i.e. 521, 522 and 538 respectively. There were 4,299 beds less actual beds compared to official authorized inpatient beds, showing a gap in bed availability for inpatient care across the country, compared to official expectations of bed deployment. The actual inpatient bed count in all facility types was lower than the authorized official bed capacity, except for CHPS. This could be because of the decommissioning of worn-out beds, without replacement. The finding could be an indication of a national contraction in inpatient bed numbers.

The proportion of dedicated obstetric bed vs. total bed capacity was highest in CHPS and clinic/maternity homes. A national audit of hospital beds leading to a comprehensive inventory is required. Reports on age profiles, general functional status and structural integrity of beds is required, for the preparation of a procurement and replacement plan to address existing shortfalls, meet official authorized counts, and replace worn-out ones.

Hospital clinical engineering workshops need to be equipped to carry out regular preventive maintenance, and corrective interventions should the need arise. Quality assurance must be adhered to, so as to ensure the procurement of robust beds that would last the benchmark useful lifespan.

The total national bed count for service delivery purposes should equal the official or authorized bed count to prevent situations where patients, especially those on maternity wards may end up on floors, or, on beds in unauthorized locations within the hospital. Deployment of patient beds over and above authorized official prescribed hospital bed capacities (as observed in the Volta and Western North regions) can lead to congestion, which must be avoided especially in the era of public health emergencies and pandemics.

Hospital beds must be equipped with the necessary accessories, such as side rails with the correct size of fenestrations against entrapment, IV poles and heart tables. Configurations should enable specific patient positioning (Trendelenburg and anti-) for procedures. Height adjustability and functional breaks are essential to ensure clinical staff and patient safety.

Similarly, district hospitals accounted for 49.1% of actual inpatient beds and 50.6% of maternity beds, as against regional hospitals which accounted for 8.7% of actual inpatient beds and 9.1% of maternity beds.

Table 1.1.1.1 - Total number of inpatient beds

	Actual inpatient beds	Official authorized inpatient beds	Official authorized beds	Dedicated maternity beds	n
.					

			inpatient beds (alt)		
National	26,172	30,471	29,969	6,465	1,421
Region					
Ahafo	522	672	672	145	26
Ashanti	3,708	4,528	4,499	1,046	173
Bono	1,571	1,696	1,696	327	72
Bono East	1,208	1,399	1,399	356	58
Central	2,267	2,707	2,707	551	130
Eastern	2,755	3,644	3,644	723	150
Greater Accra	4,199	4,636	4,398	1,103	206
North East	521	726	726	113	30
Northern	942	1,059	1,059	193	87
Oti	538	760	760	151	45
Savannah	553	586	586	120	40
Upper East	1,663	2,058	2,058	401	75
Upper West	1,229	1,582	1,582	320	78
Volta	2,302	2,029	2,029	415	96
Western	1,466	1,720	1,720	330	102
Western North	728	669	434	171	53
Managing authority					
Government/public	14,757	17,998	17,622	4,062	971
NGO/private	4,579	5,046	4,943	958	319
Mission/faith-based	6,235	6,725	6,702	1,358	108
Quasi government/university	601	702	702	87	23
Facility type					
Regional hospital	2,263	3,255	3,255	583	16
District hospital	12,847	15,411	15,224	3,270	149
Other general hospital	6,474	6,784	6,733	1,303	132
Poly clinic	1,428	1,603	1,492	416	69
Health centre	1,457	1,633	1,596	511	452
Clinic/maternity home	1,565	1,634	1,518	333	262
CHPS	138	151	151	49	341
Expected facilities					
NCD diagnosis / surgery	23,012	27,053	26,704	5,572	366
Non-NCD diagnosis / non-surgery	3,160	3,418	3,265	893	1,055
Expected facilities					
CEmONC	23,012	27,053	26,704	5,572	366
Non-CEmONC	3,160	3,418	3,265	893	1,055
Expected facilities					
Non-BEmONC lower-level	23,255	27,304	26,942	5,685	427
BEmONC lower-level	2,917	3,167	3,027	780	994
Expected facilities					
EmONC	26,172	30,471	29,969	6,465	1,421

Median number of inpatient beds (refer to table 1.1.1.2)

The median number of inpatient beds per regional hospital was 117, followed by 73 for district hospitals and 24 for polyclinics. Similarly, the median number of maternity beds was 35.5 for regional hospitals, 20 for district hospitals and six (6) for polyclinics.

Mean number of inpatient beds (refer to table 1.1.1.3)

The mean number of actual inpatient beds per regional hospital was 141.8, followed by 88.8 for district hospitals and 24.6 for polyclinics. Similarly, the median number of maternity beds was 36.5 for regional hospitals, 21.2 for district hospitals and seven (7) for polyclinics.

Speciality units/beds (refer to table 1.1.1.4)

Only 38% of all facilities surveyed (n=480) had a dedicated isolation bed, with 74% of district hospitals and 68% of regional hospitals with this facility. Regions with percentage of facilities with isolation beds below the national average include Ashanti (26%), Northern (16%), Western North and Greater Accra (35%) regions. Isolation beds are not expected to be found at the CHPS, thus accounting for the 0% record at that level. The need for dedicated isolation beds is important in the current need for pandemic preparedness and public health emergency response. Integrated isolation case management bed allocation should be accompanied by functional space preparation (floor, wall and furniture finishings, bed configuration and provision of supporting equipment). Stand-alone isolation centres on hospital premises are also needed for mass outbreaks.

Total number of beds by ward type (refer to table 1.1.2.1)

At the national level, the total dedicated adult surgical bed count was 2,932; actual paediatric sized beds were 5,233, and actual neonatal beds/cots were 2,168. Dedicated psychiatric beds were 718. All regions had the dedicated bed types under consideration. Three regions, namely Ashanti, Volta, and Greater Accra, recorded the highest number of dedicated surgical beds (adult), with 496, 452 and 431 respectively. Regional, district and lately, polyclinics are equipped and are mandated to provide surgical services, and therefore must necessarily have dedicated surgical beds, but not health centres. However, 64 dedicated surgical beds were counted at health centre level. Given that surgical interventions and post operative care require additional infrastructure, equipment and human resources, which are not officially deployed at this level, the presence of dedicated surgical beds in these health centres was unusual. The presence of actual paediatric size beds in regional, district, polyclinic and health centres, is commendable and needs to be enforced. Actual neonatal beds/cots were present in all facility types. Dedicated bed types were found in all facility types except CHPS.

Availability of outpatient and inpatient services (refer table 1.2.1.1)

Outpatient services are available in all facilities surveyed, irrespective of level or ownership. However, inpatient services were mainly available in the hospitals (above 95%) and polyclinics (74%). Availability was low in the lower-level facilities, but these are not traditionally expected to provide much of inpatient services.

Gaps in equipment packages for walk-in nurses' stations and consulting rooms need to be identified and met. The availability, fitness for purpose and functional state of equipment for in-patient and support services should be ascertained and appropriately met. Health facilities should ring fence resources for preventive and corrective maintenance of equipment for outpatient services. Medical equipment management services should be readily available and accessible to healthcare facilities.

Outpatient service opening days (refer to table 1.2.1.2)

All facilities surveyed were open on average daily throughout the week. This average was irrespective of facility level or management type.

Hours per day (refer to table 1.2.1.3)

About 70% of the facilities surveyed had outpatient services available all day i.e. 24 hours. This is especially true for regional hospitals (81%), district hospitals (71%) and polyclinics (91%). Similarly, 60% of CHPS and 66% of health centres were open round the clock. 19% of regional hospitals and 21% of district hospitals however only provided outpatient services between 9-16

hours a day. Very few health facilities surveyed provided outpatient services less than 8 hours a day (16%).

Imaging equipment and procedures

Nationally less than 5% of all the facilities have these available; MRI 0%, CT scan 1%, fluoroscopy 1%, mammogram 1%. X-ray service availability was 6% and 27% for ultrasound. All regional hospitals and 70% of district hospitals had x-ray machines, whilst 88% of regional hospitals and 94% of district hospitals had ultrasound machines. Ultrasound machine availability was comparatively higher amongst facility types than for other equipment. Half of regional hospitals and 6% of district hospitals had CT scan machines, whilst availability of MRI is 12% of regional hospitals assessed. Twenty percent (20%) of the regional hospitals also have a fluoroscopy equipment. Greater Accra region was most likely to have a facility with availability of any of these equipment, followed by the Ashanti region.

Sustainable acquisition of imaging equipment, especially high-end modalities has remained a challenge in the public health sector, due to the intensive nature of initial investments and the cost of ownership and may explain the general paucity in the availability of medical imaging installations. Recent deployment of ultrasound scanners and digital x-ray units under the National COVID 19 response effort may be responsible for significant availability in regional and district hospitals.

Public Private Partnership are under consideration as a possible approach to improving medical imaging infrastructure and equipment in all facility types.

Table 1.2.3.1 - Imaging equipment and procedures

.	Ultrasound	X-ray	Mammogram	CT scan	MRI	Fluoroscopy	n
National	27%	6%	1%	1%	0%	1%	1,421
Region							
Ahafo	23%	8%	0%	0%	0%	0%	26
Ashanti	42%	8%	1%	1%	0%	1%	173
Bono	13%	9%	0%	1%	0%	0%	72
Bono East	26%	7%	0%	2%	2%	2%	58
Central	20%	5%	1%	0%	0%	0%	130
Eastern	18%	5%	1%	0%	0%	0%	150
Greater Accra	66%	12%	3%	3%	1%	2%	206
North East	34%	3%	0%	1%	0%	0%	30
Northern	16%	2%	0%	0%	0%	2%	87
Oti	22%	4%	0%	0%	0%	0%	45
Savannah	16%	4%	0%	0%	0%	0%	40
Upper East	13%	3%	0%	0%	0%	0%	75
Upper West	10%	3%	0%	1%	0%	0%	78
Volta	16%	7%	0%	1%	0%	0%	96
Western	21%	8%	0%	2%	0%	0%	102
Western North	14%	3%	0%	1%	0%	0%	53
Managing authority							
Government/public	12%	4%	0%	0%	0%	0%	971
NGO/private	62%	8%	1%	2%	1%	1%	319
Mission/faith-based	58%	26%	2%	4%	2%	2%	108
Quasi government/university	52%	29%	20%	10%	0%	5%	23
Facility type							
Regional hospital	88%	100%	19%	50%	12%	20%	16
District hospital	94%	70%	6%	6%	1%	3%	149
Other general hospital	90%	24%	5%	4%	2%	5%	132
Poly clinic	87%	14%	0%	0%	1%	0%	69
Health centre	20%	0%	0%	0%	0%	0%	452
Clinic/maternity home	40%	2%	0%	1%	0%	0%	262

CHPS	3%	0%	0%	0%	0%	0%	341
Expected facilities							
NCD diagnosis / surgery	91%	37%	5%	5%	2%	4%	366
Non-NCD diagnosis / non-surgery	15%	0%	0%	0%	0%	0%	1,055
Expected facilities							
CEmONC	91%	37%	5%	5%	2%	4%	366
Non-CEmONC	15%	0%	0%	0%	0%	0%	1,055
Expected facilities							
Non-BEmONC lower-level	78%	29%	4%	4%	1%	3%	427
BEmONC lower-level	14%	0%	0%	0%	0%	0%	994
Expected facilities							
EmONC	27%	6%	1%	1%	0%	1%	1,421

Medical equipment and procedures (refer table 1.2.3.2)

Some medical equipment and procedures such as defibrillation, electrocardiogram, infant incubator services, phototherapy, mechanical ventilation, blood transfusion, colonoscopy and oxygen administration were assessed. Availability of these services remains low nationally, although when assessed by facility type, these equipment and procedures are relatively available where they are expected. Although availability of facilities offering defibrillation, electrocardiogram, infant incubator services, phototherapy, mechanical ventilation and colonoscopy remains below 15% of facilities surveyed nationally, availability is above 57% amongst regional and district hospitals for most of these equipment and procedures (except colonoscopy where it is 12% and 3% amongst regional and district respectively). Oxygen administration and blood transfusion were however found to be above 75% amongst hospitals where these services are most expected to be provided.

Basic and advanced life support services for adults and neonates should be readily available in all regional hospitals. Existing gaps need to be addressed. Access to emergency patient transport systems is a requirement for optimum performance of the referral system and should be accessible, especially at the lower levels of care.

The types of mechanical ventilation available in institutions (ICU, anesthesia machine-integrated models, transport ventilators for intra and inter-hospital transfers) need to be quantified to inform allocation and deployment in support of specific interventions and outcomes.

Laboratory diagnostic tests (refer to tables 1.2.3.3)

For a survey population of 1,421 facilities, more than 70% of the facilities had service availability for malaria diagnostic capacity (98%), HIV diagnostic testing (94%), urine dipstick protein (81%), and urine pregnancy test (79%). More than 50% offered urine dipstick-glucose test (66%), syphilis RDT test (60%) and urine dipstick-ketone test (52%). For full blood count, 20% of the facilities offered testing and 27% offered general microscopy. The percentage of facilities offering culture and sensitivity was 3%. General service availability was high amongst hospitals and polyclinics where these services are most expected to be rendered. It is however surprising that only 37% of regional hospitals performed culture and sensitivity at the time of the survey. Likewise, availability of test kits for syphilis and urine pregnancy tests at the regional hospital was 81% and 94% respectively, whilst the values were 96% and 99% at the district hospital at the time of the survey.

Similarly, even though there is a low availability of services like blood typing and grouping, serum electrolyte tests, renal function tests, and liver function tests nationally (generally below 26%

availability), availability was above 52% of hospitals, which is the level they are expected to be provided. Clearly, services for biochemistry were absent across CHPS compounds, with similarly low availability across health centres.

Basic amenities for the main service area of the facility (refer to table 2.1.1.1)

Examination of the availability of basic amenities in regional hospitals revealed 94% of them had power, and all had improved water sources and sanitation amenities for clients. Communication systems and internet access were available in 81% of the hospitals, while 75% had emergency patient transport systems. Between 82% and 94% of district hospitals had all the amenities, with 75% having internet access, while 71% had emergency patient transport systems. At the CHPS level, power availability was 66%, with 61% having improved water sources. Fifty-seven percent (57%) had sanitation facilities. The proportion of CHPS with access to emergency transport systems was 18%. The need for reliable power supply has become pertinent on account of the increasing footprint and complexity of electrically operated equipment even at CHPS level. Expenditure of electricity can escalate operational costs of health facilities.

Basic equipment in main service area of facility (refer to table 2.2.1.2)

Basic equipment in main functional areas of hospitals is lacking across the country. The proportion of facilities with the full complement of vital sign measuring devices, diagnostic sets and anthropometric equipment in main service areas was just 5% nationwide. The provision of this basket of equipment sustainably, should be seen as a very urgent priority. The configuration of each device should be determined by standardization on makes and models, durability, fitness for purpose and ease of use among others.

Standard precautions for infection prevention

National facility level availability of equipment for sterilization, or access to sterilization services, was 45%. Out of regional hospitals surveyed, 80% had the equipment or access to sterilization services. The proportion for district hospitals was 87%, while the observation for other general hospitals was 80%. Also, 70% of polyclinics had the equipment, while the proportion of health centres, clinics / maternity homes and CHPS were 48%, 54% and 28% respectively. Sterilization equipment and services are critical. The age profile of existing equipment is required to plan replacements; existing gaps need to be established through inventories; distilled water production systems should always be procured with sterilizers.

Thirty-nine percent (39%) of facilities surveyed disposed of sharps in a safe manner. There was a general lack of this practice, with only 26% of regional hospitals practicing safe disposal. The proportion for district hospitals was 38%; other general hospitals, 56%; polyclinics and health centres, 26% and 31% respectively. 53% of maternity homes/clinics and 33% of CHPS compounds had safe disposal systems. The prevailing situation clearly poses significant risks to the safety of healthcare workers. At the point of care, the mass deployment of needle destroyers would make rapid and high impact.

Systems for safe final disposal of non-sharp infectious waste were found to be available in 25% of health facilities nationwide. Only 19% of regional hospitals were equipped with safe final disposal systems. 38% of district hospitals and 40% of other general hospitals had the capability, with the percentage of polyclinics and health centres being even lower.

Systems for safe final disposal of waste were therefore generally lacking, creating potential public health hazards. Adoption of the cluster model (and not the facility-based approach), where final disposal hubs are deployed to serve a network of healthcare facilities in an enclave could rapidly improve availability.

Table 2.3.1.1 - Standard precautions for infection prevention

	Guidelines for standard precautions	Guidelines for health care waste management	Staff trained in health care waste management	Hand hygiene items	Laundry services	Sterilization equipment in facility or system for sending items outside for sterilization	Environmental disinfectant	Appropriate storage of sharps waste	Appropriate storage of non-infectious waste	Safe disposal of sharps waste	Safe disposal of non-infectious waste	Posting good hand hygiene techniques	Mean proportion of all facilities at facilities	Proportion of facilities with all items	n
National	31%	16%	32%	15%	25%	45%	98%	33%	2%	39%	25%	57%	35%	0%	1,421
Region															
Ahafo	17%	27%	25%	10%	13%	41%	100%	14%	0%	16%	16%	68%	29%	0%	26
Ashanti	36%	19%	23%	32%	48%	46%	100%	47%	3%	45%	35%	79%	43%	0%	173
Bono	44%	14%	47%	13%	16%	58%	100%	19%	0%	38%	22%	35%	34%	0%	72
Bono East	11%	15%	36%	6%	25%	40%	96%	34%	0%	19%	20%	17%	27%	0%	58
Central	25%	8%	29%	8%	13%	47%	98%	20%	0%	27%	18%	57%	29%	0%	130
Eastern	27%	6%	16%	20%	34%	18%	97%	41%	5%	22%	16%	51%	29%	0%	150
Greater Accra	56%	47%	58%	23%	34%	72%	100%	46%	3%	65%	50%	60%	51%	0%	206
North East	44%	10%	32%	24%	26%	69%	100%	37%	0%	14%	24%	43%	35%	0%	30
Northern	24%	4%	15%	13%	20%	58%	100%	30%	2%	34%	26%	48%	31%	0%	87
Oti	9%	15%	18%	9%	27%	39%	94%	28%	0%	25%	23%	64%	29%	0%	45
Savannah	18%	10%	26%	7%	16%	41%	100%	39%	0%	36%	16%	54%	30%	0%	40
Upper East	18%	6%	50%	3%	8%	45%	98%	27%	1%	60%	24%	49%	33%	0%	75
Upper West	42%	12%	49%	11%	13%	51%	95%	41%	3%	45%	11%	85%	38%	0%	78
Volta	42%	20%	13%	12%	12%	45%	100%	15%	0%	55%	7%	78%	33%	0%	96
Western	13%	7%	25%	6%	18%	28%	98%	23%	1%	28%	23%	51%	27%	0%	102
Western North	9%	6%	23%	4%	22%	18%	97%	35%	0%	19%	12%	32%	23%	0%	53
Managing authority															
Government/public	27%	9%	27%	11%	19%	36%	98%	29%	1%	32%	14%	54%	30%	0%	971
NGO/private	35%	29%	42%	21%	36%	64%	100%	45%	3%	58%	50%	62%	45%	0%	319

Mission/faith-based	50%	37%	42%	36%	42%	65%	99%	40%	1%	38%	33%	71%	46%	0%	108
Quasi government/university	51%	27%	44%	13%	11%	69%	100%	26%	0%	56%	60%	59%	43%	0%	23
Facility type															
Regional hospital	63%	50%	75%	44%	81%	80%	100%	75%	0%	26%	19%	50%	55%	0%	16
District hospital	56%	43%	46%	62%	87%	87%	100%	83%	0%	38%	30%	64%	58%	0%	149
Other general hospital	50%	42%	56%	38%	60%	80%	100%	69%	1%	56%	48%	67%	56%	0%	132
Poly clinic	57%	34%	45%	15%	24%	70%	100%	29%	0%	26%	32%	63%	41%	0%	69
Health centre	41%	15%	34%	7%	10%	48%	100%	17%	1%	31%	22%	61%	32%	0%	452
Clinic/maternity home	31%	21%	31%	12%	20%	54%	100%	25%	4%	53%	45%	62%	38%	0%	262
CHPS	19%	5%	23%	10%	18%	28%	97%	30%	2%	33%	12%	50%	27%	0%	341
Expected facilities															
NCD diagnosis / surgery	52%	42%	53%	43%	65%	81%	100%	70%	0%	48%	41%	66%	55%	0%	366
Non-NCD diagnosis / non-surgery	27%	11%	27%	10%	17%	38%	98%	26%	2%	37%	21%	55%	31%	0%	1,055
Expected facilities															
CEmONC	52%	42%	53%	43%	65%	81%	100%	70%	0%	48%	41%	66%	55%	0%	366
Non-CEmONC	27%	11%	27%	10%	17%	38%	98%	26%	2%	37%	21%	55%	31%	0%	1,055
Expected facilities															
Non-BEmONC lower-level	46%	35%	46%	35%	54%	72%	100%	58%	1%	49%	43%	65%	50%	0%	427
BEmONC lower-level	27%	11%	28%	10%	17%	38%	98%	27%	2%	36%	20%	55%	31%	0%	994
Expected facilities															
EmONC	31%	16%	32%	15%	25%	45%	98%	33%	2%	39%	25%	57%	35%	0%	1,421

Personal protective equipment (refer table 2.3.1.2)

The percentage of facilities (n=1421) with availability of all PPE (gloves, surgical or particulate respirators, protective gowns, impermeable aprons, eye protection, gumboots and hair covers) was 36%, in spite of numerous interventions at providing PPE to facilities during the recent COVID-19 pandemic. Availability of all these essential commodities was however above 83% in all hospitals and 79% in polyclinics. Availability was lowest at the CHPS level, which is not expected to manage many of the communicable diseases.

Basic diagnostic capacity

The proportion of facilities nationwide, that can conduct onsite point-of-care testing for hematology, chemistry, pregnancy, malaria, HIV and syphilis was 27%. The proportion of regional hospitals with these capabilities was 75%, while 83% of district hospitals had the same. Other observations were 60% of other general hospitals, 62% polyclinics, 35% health centres, 38% clinic/maternity homes and 5% CHPS.

Table 2.4.1.1 - Basic diagnostic capacity

	Haemoglobin testing	Blood glucose testing	Urine dipstick-glucose testing	Urine dipstick-protein testing	Urine dipstick-ketone testing	Urine test for pregnancy	Malaria diagnostic testing	HIV diagnostic testing	Syphilis RDT testing	Mean proportion of all items at facilities	Proportion of facilities with all items	n
National	47%	64%	66%	67%	52%	79%	82%	69%	60%	65%	27%	1,421
Region												
Ahafo	48%	40%	53%	62%	36%	63%	59%	47%	59%	52%	16%	26
Ashanti	54%	80%	83%	82%	66%	85%	87%	76%	78%	77%	41%	173
Bono	46%	77%	75%	75%	57%	100%	92%	71%	73%	74%	25%	72
Bono East	62%	66%	69%	69%	64%	74%	92%	64%	49%	68%	29%	58
Central	33%	67%	75%	73%	42%	85%	90%	67%	43%	64%	14%	130
Eastern	34%	48%	60%	58%	37%	71%	74%	69%	64%	57%	18%	150
Greater Accra	82%	94%	95%	95%	93%	96%	96%	83%	87%	91%	65%	206
North East	56%	72%	54%	59%	45%	90%	85%	78%	69%	68%	23%	30
Northern	58%	54%	53%	58%	33%	87%	82%	80%	62%	63%	13%	87
Oti	34%	43%	44%	44%	37%	47%	55%	49%	40%	44%	12%	45
Savannah	64%	38%	56%	62%	29%	88%	94%	52%	61%	60%	8%	40
Upper East	24%	47%	53%	53%	47%	72%	80%	69%	35%	53%	15%	75
Upper West	39%	45%	28%	28%	24%	72%	73%	58%	44%	46%	15%	78
Volta	20%	55%	56%	56%	53%	62%	67%	64%	29%	51%	14%	96
Western	46%	70%	63%	64%	43%	73%	85%	68%	59%	63%	21%	102
Western North	37%	52%	53%	54%	38%	58%	66%	54%	53%	52%	17%	53
Managing authority												
Government/public	36%	53%	55%	56%	37%	73%	80%	67%	51%	56%	16%	971
NGO/private	70%	88%	90%	89%	84%	93%	87%	73%	79%	84%	48%	319
Mission/faith-based	73%	93%	90%	88%	84%	92%	93%	80%	81%	86%	48%	108
Quasi government/university	79%	85%	83%	83%	83%	88%	88%	85%	80%	84%	74%	23
Facility type												
Regional hospital	100%	100%	94%	94%	88%	94%	100%	94%	81%	94%	75%	16
District hospital	96%	99%	98%	98%	98%	99%	99%	91%	96%	97%	83%	149
Other general hospital	80%	99%	97%	98%	97%	97%	93%	82%	92%	93%	60%	132
Poly clinic	82%	98%	97%	97%	96%	98%	96%	93%	90%	94%	62%	69
Health centre	57%	82%	84%	83%	71%	91%	93%	84%	74%	80%	35%	452
Clinic/maternity home	58%	77%	79%	77%	68%	83%	80%	66%	66%	73%	38%	262
CHPS	26%	40%	43%	45%	21%	66%	74%	59%	41%	46%	5%	341
Expected facilities												
NCD diagnosis / surgery	85%	99%	97%	98%	97%	98%	95%	86%	93%	94%	67%	366
Non-NCD diagnosis / non-surgery	40%	58%	60%	60%	43%	75%	80%	66%	54%	60%	19%	1,055
Expected facilities												
CEmONC	85%	99%	97%	98%	97%	98%	95%	86%	93%	94%	67%	366
Non-CEmONC	40%	58%	60%	60%	43%	75%	80%	66%	54%	60%	19%	1,055
Expected facilities												
Non-BEmONC lower-level	77%	91%	94%	92%	88%	95%	90%	79%	86%	88%	57%	427
BEmONC lower-level	39%	57%	59%	60%	42%	75%	80%	67%	53%	59%	19%	994
Expected facilities												
EmONC	47%	64%	66%	67%	52%	79%	82%	69%	60%	65%	27%	1,421

Basic laboratory readiness auxiliary indicators (refer to table 2.4.1.2)

Percentage of facilities offering laboratory services with the following items in at least one main laboratory testing area:

The national average for the availability of light microscopes is 35%, with a range of 10% to 68% across different regions. Greater Accra has the highest percentage of facilities offering light microscopes (68%), while Western North has the lowest (11%). The indicator shows Greater Accra had the highest percentage in all indicators except for the "evidence of a record of specimens received and results recorded" indicator, where the Oti region scored 76%.

The proportion of facilities offering all items ranges from 7% to 48% across different managing authorities, with quasi-government/university having the highest percentage (48%) and government/public having the lowest (7%). With the light microscope indicator, quasi government/university has the highest percentage, 82%, and the government/public has the lowest rate, 20%. Also, the government/public had the lowest percentage across all the indicators.

With facility type, the CHPS facility had the lowest score across all indicators, scoring 0% in "proportion of facilities with all items". The regional hospital, on the other hand, had the highest percentage across most indicators except for "backup source of electricity," where they placed 3rd with a score of 88%. The highest score for this indicator was obtained by the other general hospital, with a score of 98%.

Basic laboratory auxiliary indicators - infection prevention and control (Refer to table 2.4.1.3.)

The data in table 2.4.1.3 shows the percentage of facilities offering laboratory services with the following items in at least one main laboratory testing area. The percentage of facilities that have adequate hand hygiene items ranges from 37% to 100%, with an average of 59%. The highest proportion of facilities with these items is in the regional hospital. The percentage of facilities with latex gloves available ranges from 70% to 100%, with an average of 94%. The percentage of facilities with single-Use Standard Disposable or Auto-Disable Syringes ranges from 78% to 100%, with an average of 94%. The percentage of facilities with proper environmental disinfectants ranges from 65% to 100%, with an average of 91%. The percentage of facilities that store sharps waste appropriately ranges from 85% to 100%, with an average of 93%. The percentage of facilities with proper storage for non-sharp infectious waste varies from 6% to 84%, with an average of 47%. Facilities in Greater Accra have the highest proportion and those in the Northern have the lowest. The percentage of facilities with appropriate storage for biological waste, ranges from 6% to 77%, with an average of 48%. The percentage of facilities with posters displaying good hand hygiene techniques, ranged from 18% to 81%, with an average of 61%. The proportion of facilities with all items assessed ranges from 2% to 69%, with an average of 35%. Facilities in the Northern region tend to have lower proportions.

Essential medicines (refer to table 2.5.1.1.)

The data in Table 2.5.1.1 represents data on the percentage of facilities with essential medicines and commodities. The percentage of facilities with Salbutamol inhalers available ranges from 2% to 73%, with an average of 24%. The percentage of facilities with corticosteroid inhalers varies from

0% to 57%, with an average of 8%. The percentage of facilities with this gliclazide or other sulphonylurea tab/cap ranges from 0% to 88%, with an average of 12%. Facilities in Ashanti region have the highest proportion and facilities in North East have the lowest. The percentage of facilities with metformin cap/tab ranges from 3% to 92%, with an average of 38%. The percentage of facilities with insulin injections available varies from 1% to 94%, with an average of 25%. The percentage of facilities with at least two of the listed anti-hypertensive medications available ranges from 36% to 100%, with an average of 74%. The percentage of facilities with statin medications varies from 5% to 65%, with an average of 25%. The percentage of facilities with availability of furosemide medications, ranges from 1% to 34%, with an average of 33%. The availability of aspirin varies from 4% to 66%, with an average of 23%. The percentage of facilities with paracetamol, ranged from 4% to 94%, with an average of 74%. The availability of ibuprofen ranges from 5% to 90%, with an average of 60%. The percentage of facilities with morphine (oral or injectable) ranges from 1% to 100%, with an average of 25%. The percentage of facilities with fluoxetine or other SSRI tab/cap medications available ranges from 0% to 25%, with an average of 9%. The availability of phenytoin or carbamazepine tab/cap varies from 1% to 35%, with an average of 21%. The percentage of facilities with amoxicillin medication ranges from 21% to 84%, with an average of 52%. The availability of procaine penicillin or benzathine penicillin injection ranges from 7% to 82%, with an average of 29%. The availability of gentamycin injections varies from 6% to 78%, with an average of 37%. The percentage of facilities with ceftriaxone injections available ranges from 4% to 88%, with an average of 38%. The availability of Artemisinin-Based Combination Therapy (ACT) ranges from 57% to 100%, with an average of 85%. The availability of Artesunate, ranges from 20% to 94%, with an average of 47%. The availability of ORS ranges from 23% to 94%, with an average of 69%. The percentage of facilities with zinc supplements, ranges from 1% to 33%, with an average of 60%. The availability of Ready-to-Use Therapeutic Food (RUTF) varies from 3% to 39%, with an average of 11%. The availability of hormonal contraceptives, ranges from 11% to 83%, with an average of 77%.

Oxygen service availability (in OPD) (refer to table 2.5.4.1)

This indicator measures the percentage of facilities offering oxygen in outpatient departments among 1,421 sampled facilities. Nationally, the percentage of facilities that ever offered oxygen at the OPD stood at 29% with Greater Accra facilities recording 77% of the sampled facilities while the Savannah had the least score of 8%. The higher levels of care i.e., the hospitals recorded higher percentages of oxygen availability compared to the lower level.

Oxygen service readiness (in OPD) (refer to table 2.5.4.2)

Even though oxygen therapy is mainly administered in critical care areas including the emergency room and casualty, the national availability of medical oxygen in the OPD of health facilities offering medical oxygen services was 63%. The presence of pulse oximeter was 84%. Reliable oxygen services was 81%. The proportion of regional hospitals, which had oxygen availability in the OPD was 54%, while 83% district hospitals had same. Oxygen availability in other health facility types were 72% for general hospitals, 68% for polyclinics and 55% for health centres. For maternity homes, 59% had oxygen in the OPD, while 22% CHPS had it.

Pulse oximetry measurement was available in 91% of regional hospitals, 90% of district hospitals and 92% in other general hospitals and polyclinics. 86% of maternity homes had the equipment, while 22% CHPS was recorded. National percentage was 84%.

Reliable OPD oxygen services were found in 81% of facilities nationwide. At the facility level, 63% of regional hospitals offered the service, while 78% of district hospitals, 91 % of other general hospitals and 80% of polyclinics had same. The proportions of health centres, clinics/maternity homes, and CHPS that had the service were 71%, 80% and 32% respectively.

As stated, the OPD is not a designated hypoxemia care functional area. It is recommended that medical oxygen sources be deployed in designated casualty or resuscitation stations, with standalone wall-mounted outlets and/or bed head units with integrated outlets serving as outlet to delivery devices at the point of care. The presence of oxygen analyzers would enable determination of the purity of oxygen being administered. The deployment of central medical oxygen sources such as Pressure Swing Adsorption (PSA) oxygen generating plants, oxygen manifolds, modular generators, portable High Flow High pressure concentrators and liquid oxygen installed outside of the immediate patientcare environment eliminate the exposure of patients to high pressures above 4bar, with its attendant risks.

Handheld pulse oximetry enables spot check SPO₂ determination. In casualty and resuscitation stations, multiparameter physiological monitoring during oxygen therapy is required, for which patient monitors should be provided to augment dedicated pulse oximetry.

Reliable oxygen services depend on the total supply chain of medical oxygen, from source, through distribution, to the point of care. The integrity of installations, the quality of medical oxygen available at the point of care, the competence of clinical staff, and existence of robust systems for maintenance are all determinants of reliable oxygen services.

Pharmaceutical storage area - main facility pharmacy store (refer table 2.5.5.1)

Seventeen indicators addressing the percentages of facilities (n-1395) with a main facility pharmacy store were looked at. Of the surveyed facilities, 55% had medicines off the floor, with Ahafo recording the lowest at 38% while Greater Accra had 73% of its facilities adhering to this indicator. Most facilities assessed nationally (92%) had their main medicines storage area under lock and key. Two (2) out of the 16 regions recorded less than 20% of their facilities having functional thermometer/thermostat. An average of 4% of the facilities had their current room temperature between 15C to 25C (inclusive), Percentage of facilities with all pharmaceutical items at the time of visit was 1%.

Under facility types, the higher-level facilities (regional hospital, district hospital and other general hospital) recorded higher percentages across all the indicators under the section compared to the lower-level facilities (health centre and CHPS).

Pharmaceutical storage area - bulk store (refer to table 2.5.5.2)

At the national level, infrastructure and equipment to enable bulk storage of medicines under controlled environmental conditions is generally lacking. The data also showed that temperature measurement for storage facilities was also a challenge. Only 13% of facilities had functional storage temperature monitoring systems; 30% had dedicated functional fridges and 8% had walk-in cold rooms for pharmaceuticals. 86% of regional hospitals had a dedicated functional fridge, while 62% of district hospitals and 33% of other general hospitals were so equipped. In the case of polyclinics,

availability was 43%; 23% of clinics/maternity homes, 22% of health centres and 22% of CHPS had the installation.

The national availability of functional thermometry was 13%. Only half (51%) of regional hospitals had functional temperature measurements; 31% of district hospitals were similarly equipped, while 26% of other general hospitals 12% of polyclinics and less than 10% of the lower-level facilities had functional thermometry.

Storage conditions for pharmaceuticals can be temperature range specific to ensure preservation of efficacy. Temperature measurement of the storage area is a standard requirement. Therefore, all facility-types must be appropriately resourced.

Recommendations

HIV

- HIV testing service availability:
 - The national programme would need to do further assessment and analysis to better understand findings from the HHFA so as to design appropriate interventions to target clinics, maternity homes and adolescent-friendly corners and integrate HIV testing services at such places since adolescents form part of the population that drives the HIV epidemic in Ghana.
 - The programme will need to scale up ART sites with a specific focus at the lower level of service delivery to help increase HIV treatment services for the achievement of the 95-95-95 targets as well as improve universal health coverage by 2030.
- HIV testing service readiness
 - To improve service quality, the national programme should build the capacity of service providers across all regions on HIV testing and counselling as well as treatment services. This will help reduce the high loss to follow up (LTFU) and defaulter rate as well as increase the linkage rate among PLHIV.
 - Distribution of guidelines and other service provision manuals should not only target ART and PMTCT sites but all HIV service delivery sites.
 - Further assessment is needed by the programme to better understand the gap with the availability of guidelines to appropriately intervene.
- HIV testing auxiliary indicators - Infection prevention and control in HIV test area
 - The NACP should liaise with the Institutional Care Division (ICD) of the Ghana health services to train HCWs on infection prevention and control (IPC) practices with a focus on the lower levels of health care delivery.
 - The NACP should as part of their training incorporate IPC to help build the capacity of HCWs providing HIV services.
- HIV/AIDS care and support service (CSS) availability
 - The Clinical care and support unit of the NACP should build the capacity of HCWs at Health centres and CHPS (lower level of care delivery) to provide treatment for minor HIV-related opportunistic infections.
 - They should also be trained to identify signs of HIV-related complications for early referral to avoid HIV-related mortality.
- PMTCT service availability
 - For Ghana to achieve the triple elimination goal, every PMTCT site should offer ARVs and EID services. The study findings show a gap in ARV provision and EID service provision at these sites.
 - The NACP needs to conduct further assessment to understand the factors contributing to these findings to intervene appropriately.

- The regions most affected are the hard-to-reach areas and the programme should focus on Community ARV delivery as part of the DSD module.
- The HHFA has shown a gap in HIV testing and treatment coverage including PMTCT and early infant diagnosis (EID) across the country especially at the lower levels of service delivery. The programme will need to scale up these services with a specific focus at the lower level of service delivery to help with the achievement of the 95-95-95 targets as well as improve on the universal health coverage goal by 2030.
- The assessment has also brought out a gap about the testing of adolescents. While HIV testing services is 85% for the general population that of adolescents is 80%. The national programme would need to do further assessment and analysis to better understand factors accounting for this variance among facilities offering HTC to help design appropriate interventions for improved HIV services across the treatment cascade for this population and other subpopulations.
- The Programme has in the last few years not provided training and capacity building on HIV testing and counselling services due to a funding gap. Staff attrition has also been high at facilities providing HIV services. This may account for the 49% reported for Staff trained in providing HIV services from the survey. The availability of HIV service delivery guidelines and manuals was identified as a major gap. In order to improve service quality, the national programme needs to;
 - build the capacity of service providers across all regions on HIV service delivery. Specifically, the training will cover areas of HIV Testing, Treatment, PMTCT and EID. This is expected to scale up HIV Testing, Treatment, PMTCT and EID services across all levels of facilities most especially at the primary health care level (CHPS). This will help to address linkage gaps among the general population, pregnant women, Adolescents (AGYW) and key populations (KPs).
 - engage and train more maternity homes and clinics who are basically private health care providers to provide comprehensive service delivery since the assessment has shown a gap at these service delivery points. The NACP will collaborate with the private sector to scale up HIV Services among private health facilities as the assessment showed gaps. In the area of capacity building for health facilities, the private sector will be covered to also improve the Public Private Partnership.
 - ensure that the distribution of guidelines and other service provision manuals does not only target ART and PMTCT sites but all HIV service delivery sites. Also, the Program will periodically share soft copies of guidelines, SOPs to regional health directorates for onward distribution to service delivery areas. The NACP will also work with the Human Resource Training Coordinators to support in the distribution of these guidelines.
 - collaborate with the Human Resource Division of the GHS to work with training coordinators to incorporate HIV in all training for HCWs.
- The assessment also reported some marginal stockouts of HIV test kits within the period and this can be attributed to funding gap as well as delayed import clearance. The national programme should continue to engage the Ghana AIDS Commission (GAC) and other stakeholders responsible for making these waivers available to facilitate early clearance and avoid these marginal stockouts reported by the HHFA.
- Through COVID-19, the programme has provided infection prevention and control commodities such as gloves, disinfectants etc. to complement facility stocks. This could have resulted in the high rates of infection prevention commodity availability at the survey sites. The NACP will

continue to liaise with the Institutional Care Division (ICD) of the Ghana health services to train HCWs on Infection Prevention and Control (IPC) practices with a focus at the lower levels of health care delivery.

- The assessment has shown a gap in comprehensive ART service delivery at facilities that responded to providing the service. This is because programmatically, every ART facility is trained to provide ARVs, ART clinical follow-up, routine adherence counselling and follow-up for ARV supply. The study finding shows that apart from the Oti, Ashanti and UWR region who are providing all the above services the rest have some issues which need to be investigated.
- The study reports that 51% had 1st line ARVs available during the survey period. Programmatically, over 95% of HIV-positive clients are on 1st line regimen. The programme will need further information to better understand this finding to intervene since the findings is at variance with other assessment done by the Global Fund and other partners (it showed 71%).

RMNCAH

- The data set indicates inadequate number of service providers have been trained in IMNCI Case Management, which means that an adequate number of service providers especially at the Primary Health Care level need to be trained in IMNCI Case Management, Facilitation and Supervisory skills to help make available, accessible and improve on the quality of care for children under 5 years in the country.
- There is a need to assess the availability and utilization of the IMNCI Chart Booklet at the service provision point since this is what is used to assess, classify and treat children under 5 years in Ghana.
- Intensify efforts to put SAM management supplies as part of the essential medicines list to improve availability at all levels.
- There is a need to train and equip midwives in health centres, polyclinics and maternity homes to provide all the 7 signal functions constituting basic emergency obstetric and newborn care.
- There is a need to ensure functional theatres in hospitals and equip them with blood storage capacity.

NTD

- Strengthen capacity building in diagnosis, identification, treatment, and management of NTDs in all levels of health facilities.
- Ensure availability of logistics for diagnosis, Management, and education materials on NTDs
- Mobility mapping of NTDs in Ghana to understand the burden and patterns of these disease for allocation of resources of logistics.
- Integration of NTDs diagnosis, treatment, and case management into all levels of health care services (Lymphatic Filariasis and Onchocerciasis)

IPC

- Guidelines, reporting forms and registers should be made available to facilities at regular schedules.
- Clinics /maternity homes should be prioritised when guidelines, reporting forms and registers are being distributed.

- These findings highlight the challenges faced by health facilities in the implementation of IPC practices. Specific interventions such as IPC training, provision of appropriate waste bins (pedal operated) and corresponding liners are required to strengthen them.

Immunization

- The GHS/EPI should liaise with private/NGO managing authorities and assign staff (CHN) to provide immunization services at private facilities.
- Provide orientation for staff on catch up policy.
- GHS/FDA should harmonize procurement and storage of key non-routine vaccines (HPV, influenza and Heb B) to assure vaccine safety and financial access. Vaccine can be stocked at the national cold room and sold to private facilities at subsidized cost.
- EPI/GHS further should interrogate data on HPV, Influenza and Heb B vaccines.
- GHS/EPI should provide both hard and soft copies of EPI Guidelines for all facilities.
- GHS/EPI are to ensure that all vaccine fridges have temperature monitoring devices and are monitored twice daily.
- GHS/EPI are to deploy the use of remote monitoring systems to monitor all fridges/freezers temperatures.
- GHS must review the supply of anti-snake venom.
- GHS/EPI should take the necessary steps to ensure that all staff performing immunization services are trained.
- MoH/GHS should continuously support adequate and regular supply of vaccines to avoid stock out.
- GHS/EPI should make conscious efforts to follow up and validate HPV stocks and possible usage.

Rehabilitative and Palliative services

- Development of a national guideline on rehabilitative services with effective distribution
- The provision of audiometric equipment and booths should be prioritised.
- Future tools must define palliative care and its components in order to facilitate a better assessment.
- The MOH must develop an overarching palliative care policy and strategy to guide palliative care provision in the country.
- A comprehensive national situational analysis needs to be conducted to assess palliative care development and integration.
- Support must be provided to strengthen the Ghana Palliative Care Association.
- CHNs must be trained and equipped to provide Home-based palliative care in addition to their current roles.
- Basic palliative care training is needed at all levels of care.
- Palliative care training must be integrated into curricula of health training institutions (undergraduate and postgraduate) and form part of required in-service CPDs for all health cadres.
- Any national palliative care policy/strategy must clearly define what palliative care integration would look like for Ghana and the staffing requirements and practices needed at each level of care.

- Any national guidelines for palliative care that are developed must be cross-cutting and similar in disease-specific guidelines e.g. HIV, TB, NCDs
- Issues pertaining to the poor availability of paracetamol, ibuprofen and opioids need to be reviewed and tackled.

Non-Communicable Diseases

- All Hospitals and Polyclinics should put in place appointment systems for the follow-up of NCDs patients and Register/database with treatment start date, adherence and outcomes.
- CHPS Compounds should be resourced to provide chronic non-communicable disease services.
- All facilities need to have tape measures and weighing scales.
- All facilities should be equipped with BP apparatus and glucometers. Regions scoring below 95% for availability of BP apparatus may require further clarification.
- Diabetes guidelines should be widely disseminated using electronic platforms as well with a focus on private facilities.
- Staff in all regions and especially in government facilities should be trained to offer diabetes services.
- Many more facilities expected to diagnose and treat diabetes must be able to do HBA_{1c} test.
- Blood gases must be available in all district and regional hospitals that are likely to manage severe complications of diabetes like Diabetic ketoacidosis.
- Blood glucose tests should be put on the NHIS package of services.

Mental Health Services

- All facilities irrespective of the level should be able to give some basic psychosocial support to survivors which was omitted in the assessment.
- Develop a standard forensic assessment form and make it available at the facility.
- Train practitioners to complete the forensic assessment form.
- Develop level-specific SOP /guidelines for the management of victims.
- Develop a clearly defined referral pathway from the various service levels for appropriate interventions.
- Develop tailored services for victims/ special units (multisectoral/ interdisciplinary)
- Yearly holistic assessment organized by the MoH should have an indicator to capture Services for survivors of rape, sexual or intimate partner violence.
 - The limitations of the research should be provided because of the context interpretation of the findings.
- Simple interventions such as Emergency Contraceptives should be available at all levels.
- Best practices demand that all health facilities elicit community input in management decisions.
- The essence of having CHPS Strategy is to integrate the health system into the communities' fabric and CHPS must be encouraged to have a routine system for eliciting community input in management decisions.
- It is essential to revisit the functionality of the Community Health Management Committee (CHMC) & the Community Health Volunteers (CHVs)

- Considering the large numbers of lower-level facilities (health centres, CHPS and maternity homes/ clinics, other general hospitals, all facilities should be equipped to provide level specific services.
- Develop Guidelines/ SOPs, for managing abused children.
- Train staff on the use of the guidelines. Generally, all health staff should be oriented to identify, provide basic psychosocial support, and refer abused children.
- Develop tailored services for victims/ special units (multisectoral/ interdisciplinary)
- Build capacity of existing staff at the lower level (CHPS, clinics/maternity homes, etc) to provide basic mental health and neurological care.
- Post MH staff to underserved facility levels.
- Develop and implement staffing norms to commensurate with service needs nationally.
- Provide adequate guidelines and protocols to guide lower-level health practitioners.

Health Infrastructure/Estate Management

- There is a need to recruit estate managers for districts and other hospitals without estate managers.
- Estate managers must be properly equipped with the necessary skills and current technology in the management of the inventory of assets.
- Districts and other hospitals with estate managers should provide technical support to Health centres and CHPS in the management of their assets.
- Facility Managers and estate managers should be trained in Planned Preventive Maintenance (PPM).
- A plan should be put in place for the district hospital management/estate managers to take oversight responsibilities over health centres and CHPS by providing technical support to them in routine maintenance systems for infrastructure, vehicles, and equipment.
- There should be further investigation to unearth why close to 19% of regional-level facilities cannot maintain or replace small equipment at their level with all the funding opportunities and expertise within the public health service at their perceived disposal.

Emergency Preparedness and Safety

- Generally, the survey data revealed that nationally only 13% of facilities were currently certified through the NEQA system for any services. It is therefore recommended that MOH scale up certification of NEQA across all levels of service delivery in all regions.
- Data from the survey indicated that as low as 11% of all facilities have a written fire safety plan. We strongly recommend that the Ministry of Health take serious steps towards ensuring that all facilities have written fire safety plans. Additionally, the MOH should liaise with GNFS to ensure that all facilities adhere to fire safety protocols.
- Whereas none of the facilities surveyed in some regions had a written emergency response plan for outbreaks, nationally as low as 7% of facilities had. Therefore, we recommend that heads of agencies under MOH should take steps towards addressing this challenge holistically.
- The preparation of a staffing plan is often the job of Human Resource Managers. There is therefore the need to carry out a Human Resource gap assessment in all facilities to identify those that do not have Human Resource Managers to post one to support their service delivery.

Surgical Services

- The clinical care divisions under the agencies of MoH should take critical steps towards ensuring that the guidelines related to monitoring adverse events to surgery and other nosocomial infections in facilities offering inpatient services are made available to facilities to improve surgical services.
- It is expedient to scale up the facilities that use the surgical safety checklist and to ensure its usage to avoid errors and medico-legal issues.
- Considering the increasing complexity of cases seen at the polyclinic level, it is highly recommended that capacity is built at that level as well to be able to provide this essential service.
- All managers must ensure that all the aspects of blood transfusion service measured are scaled up.
- All Health Facility Heads and Medical Superintendents should monitor the availability of medicines and commodities items, the equipment used at their respective facilities regularly and report to the RDHS any faulty equipment and non-availability of these commodities for early replacement to enable facilities offering emergency services be ready for emergency care.
- There is a need to provide adequate storage facilities and incinerators to properly dispose of non-infectious and biological waste in all facilities in the country.
- Train staff in waste management.

Laboratory Services

There should be deliberate investments in this area to ensure laboratory tests carried out comply with best international benchmarking standards and best practices and this may require deliberate investments from the MoH and donor partners.

HMIS and Data quality checks

- The Ministry of Health should engage the Government to facilitate the recruitment of more Health Information Officers based on the staffing gaps to enhance data capturing and analysis to inform timely decision-making.
- The Ministry of Health should engage the Government to facilitate the recruitment of more Health Information Officers based on the staffing gaps to enhance data capturing and analysis to inform timely decision-making.
- The Service should seek support from Donor Partners etc. to build the capacity of Health Information officers (permanent and other cadres playing the role of data analysis)
- The system for monitoring data validation meetings (submission of reports to DHMT with a copy on file) should be strengthened.
- Policy documents should be printed as early as possible and disseminated to all facilities across the length and breadth of the country.
- Ministry of Health should speed up the deployment of Lightwave to all facilities.
- Facilities must be adequately supplied with copies of referral forms to aid their documentation processes at their various facility levels.

Medical equipment and procedures

- The age profile and functional state of various types of beds in health facilities would help in planning replacements. The availability of accessories for surgical beds (side rails, heart tables,

IV poles, traction sets for orthopaedics) should be mandatory. Neonatal bed types should be standardized on trolley-mounted Perspex bassinets on castors with at least a shelf for supplies.

- Resources for preventive and corrective maintenance of equipment need to be integrated into acquisition costs and made available by all facilities to enable health technology management teams to provide these services.
- Improved availability of point-of-care testing modalities is recommended, especially at the district and subdistrict levels of care. There is the need for standardization and reduction of the diversity of the make and models, to optimize the management of the stock of base equipment and consumables.
- Standardization of renewable energy as a primary or complimentary power source could contribute to cost mitigation, and free resources that could be repurposed. Water harvesting and storage is recommended. Steam sterilization with hard water (if the primary source) should be discouraged to prolong the lifespan of autoclaves.
- Ongoing cold storage infrastructure had focused largely on the EPI, for which walk-in cold rooms and vaccine fridges had been distributed and installed. Similar supply and installations need to be considered for general pharmaceutical product storage.