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## **CAPE COAST TEACHING HOSPITAL**



## **2019 ANNUAL PERFORMANCE REPORT**

P. O. Box CT.1363, Cape Coast Central Region, Ghana Tel: 03321-34010-14 Digital Address: CC-071-9967 Website: <u>www.ccthghana.com</u> Email: <u>info@ccthghana.org</u>

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### LIST OF ACRONYMS

1.	A & E	-	Accident & Emergency
2.	AIDS	-	Acquired Immune Deficiency Syndrome
3.	ANC	-	Antenatal Clinic
4.	ADR	-	Adverse Drug Reporting
5.	ARIC	-	Audit Response Implementation Committee
6.	ARV	-	Anti-Retroviral
7.	ART	-	Anti-Retroviral Treatment
8.	BCG	-	Bacillus Calmette Guerine
9.	BID	-	Brought in Dead
10.	BMC	-	Budget Management Center
11.	CCMH	-	Cape Coast Metropolitan Hospital
12.	CCTH	-	Cape Coast Teaching Hospital
13.	CEO	-	Chief Executive Officer
14.	CPD	-	Continuous Professional Development
15.	CSSD	-	Central Sterilization Supply Department
16.	СТ	-	Computed Tomography
17.	CVA	-	Cerebrovascular Accident
18.	CWC	-	Child Welfare Clinic
19.	CYP	-	Couple Year Protection
20.	DDNS	-	Deputy Director Nursing Services
21.	DHIMS	-	District Health Information Management System
22.	DOTS	-	Directly Observed Treatment Short Course
23.	DTC	-	Drug & Therapeutic Community
24.	E-Health	-	Electronic Health System
25.	EmOC	-	Emergency Obstetric Care
26.	EmONC	-	Emergency Obstetric and Neonatal Care
27.	ENBC	-	Essential Neonatal Basic Care
28.	ENT	-	Ear Nose and Throat
29.	EPI	-	Expanded Programme Immunisation
30.	ETAT	-	Emergency Triage Assessment & Treatment
31.	FBS	-	Fresh Still Birth
32.	FP	-	Family Planning
33.	GCNM	-	Ghana College of Nurses and Midwives
34.	GCPS	-	Ghana College of Physicians and Surgeons
35.	G. CPham	-	Ghana College of Pharmacist
36.	GH¢	-	Ghana Cedi
37.	GHS	-	Ghana Health Service
38.	GOG	-	Government of Ghana
39.	HAMs	-	Health Information Management System
40.	HDU	-	High Dependency Unit

41.	HIM	-	Health Information Management
42.	HIV	-	Human Immunodeficiency Virus
43.	HMS	-	Hyperactive Malarial Splenomegaly
44.	НО	-	Health Objective
45.	HOs	-	House Officers
46.	HOU	-	Head of Unit
47.	HOD	-	Head of Department
48.	HR	-	Human Resource
49.	HRHD	-	Human Resources for Health Development
50.	ICT	-	Information Communication and Technology
51.	ICU	-	Intensive Care Unit
52.	IGF	-	Internally Generated Fund
53.	IPC	-	Infection Prevention and Control
54.	LB	-	Live Birth
55.	LFT	-	Liver Functioning Test
56.	KFT	-	Kidney Functioning Test
57.	M & E	-	Monitoring and Evaluation
58.	MAF	-	Millennium Acceleration Framework
59.	MCH	-	Maternal and Child Health
60.	MDGs	-	Millennium Development Goals
61.	MO	-	Medical Officer
62.	MOH	-	Ministry of Health
63.	MMR	-	Maternal Mortality Rate
64.	MRI	-	Magnetic Resonance Imaging
65.	MSB	-	Macerated Still Birth
66.	MTEF	-	Medium Term Expenditure Framework
67.	NACP	-	National AIDS Control Programme
68.	NAS	-	National Ambulance Service
69.	NCD	-	Non-Communicable Disease
70.	NGO	-	Non-Governmental Organizations
71.	NHIA	-	National Health Insurance Authority
72.	NHIS	-	National Health Insurance Scheme
73.	NICU	-	Neonatal Intensive Care Unit
74.	OBS & Gynae	-	Obstetrics and Gynaecology
75.	OHS	-	Occupational Health and Safety
76.	OPD	-	Out-patient Department
77.	PIH	-	Pregnancy Induced Hypertension
78.	PMTCT	-	Prevention of Mother to Child Transmission
79.	PNC	-	Postnatal Clinic
80.	PPM	-	Planned Preventive Maintenance / Measure
81.	PPB	-	Policy Planning and Budget
82.	RME	-	Research, Monitoring and Evaluation

83.	PPP	-	Public Private Partnership
84.	QA	-	Quality Assurance
85.	RCH	-	Reproductive and Child Health
86.	RTI	-	Respiration Tract Infection
87.	RUM	-	Rational Use of Medicine
88.	RVI	-	Retroviral Infection
89.	SATS	-	South African Triage Scale
90.	SB	-	Still Birth
91.	SBS	-	Sector Budget Support
92.	SCBU	-	Special Care Baby Unit
93.	SIL	-	Service Improvement Levy
94.	SMS	-	School of Medical Science
95.	SMO	-	Senior Medical Officer
96.	SOP	-	Standard Operative Procedures
97.	STI	-	Sexually Transmitted Infections
98.	SVD	-	Spontaneous Vagina Delivery
99.	ТВ	-	Tuberculosis
100.	U5MR	-	Under-Five Mortality Rate
101.	UCC	-	University of Cape Coast
102.	UTI	-	Urinary Tract Infection
103.	WHO	-	World Health Organization
104.	WINS	-	Work Load Indicator for Staffing Norm

### ACKNOWLEDGEMENT

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- Regional Coordinating Council, Central Region
- Health Donors & Partners (Local and International)
- Regional Health Administration, GHS, Central Region

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- The University of Cape Coast School of Medical Science
- Board & Management of CCTH
- The hardworking staff of CCTH
- All other institutions/stakeholders
- Patients
- Press

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Mrs. Sophia Blankson

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### **MESSAGE FROM THE CHIEF EXECUTIVE**



DR. ERIC KOFI NGYEDU (CHIEF EXECUTIVE)

Performance measurement is an important way of determining whether institutional goals are being achieved in line with the mandate, mission and vision. The year 2019 marked the fourth and final year of implementing the Hospital's 2016-2019 Medium-Term Strategic Plan. During the period, the hospital introduced a lot of new services to expand its service portfolio to serve the people within its catchment area, however the needed infrastructure and equipment to help provide these services efficiently are still not adequate.

The hospital has therefore dedicated itself to focus more on redevelopment within its next strategic period. As a teaching institution, the Hospital sustained its accreditation with the Ghana College of Physicians and Surgeons for the postgraduate training of Medical Doctors in Internal Medicine, Surgery, Obstetrics and Gynaecology, Radiology, Partial accreditation in Paediatrics and part of a cluster of institutions for Family Medicine Postgraduate Training. The hospital also sustained its accreditation from the Medical and Dental Council for the training of Medical House Officers and serves as a teaching and practical site for the training of all other category of health professionals from various training institutions (Nursing Training Colleges, Pharmacy College and training of other health professionals in other allied health programmes).

As a Teaching Hospital, part of our mission is to improve on quality of care by ensuring the availability of a well-motivated, skilled and committed workforce to deliver on our mandate. The hospital saw an increase in the various cadre of human resource due to the issuance of Financial Clearance by the Government for the employment of over 350 new staff. This number included 63 of our staff who were previously paid from the

hospital's Internally Generated Funds. Also, the hospital has started benefiting from the services of the Specialists Doctors who were sponsored by the hospital to further their education in various areas of medicine and successfully passed their various professional examinations. The hospital will continue its efforts to train more staff to bridge the human resource (skill mix) gaps. During the year under review, 51 staff were also trained in Sign Language to help improve quality service delivery to our hearing-impaired clients as part of our drive to become disability friendly.

During the period under review, the total outpatient visits were 168,056. This was a 6.3% increase over the 2018 performance, with a daily average of 460. Total admissions were 11,088, a 2.1% increase over the 2018 figure of 10,865. Pregnancy related complications continued to be the main cause of admissions in the hospital and this represented 4.6% of the total admissions. The death rate for the period unfortunately increased from 9.0% in 2018 to 10.3%, with majority being neonatal deaths.

In the area of maternal and child health, much progress was not recorded with regards to outcome indicators, despite all the investments made in these areas during the period. In 2019, supervised deliveries were 3,027, a decrease over the 2018 figure of 3,160. Stillbirth rate increased from 36% to 40%. We recorded a slight increase in the number of maternal deaths from 27 to 28, with maternal mortality ratio of 925/100,000 live births, as against 860/100,000 live birth the previous year.

Pre-maturity continued to be the leading cause of neonatal deaths in the hospital with a mortality ratio of 80/1000 live births in 2019, as against 63/1000 live birth in 2018. As a Teaching Hospital with a vast catchment area for certain critical conditions, it is perceived that we have all the needed resources to provide care. The Hospital's Special Care Baby Unit (SCBU), which is not up to the level of a standard Neonatal Intensive Care Unit (NICU) continues to receive increasing number of cases. In 2019, admissions increased from 890 in 2018 to 1,068 representing 16.6% increase.

The Board and Management of the hospital is greatly concerned about the continuous maternal and neonatal related deaths. As a result, long-term measures are being put in place to mitigate the situation.

Some of these measures, include renovation and revamping of the hospital's blood bank to improve the availability of blood and blood related products. We have also secured approval for the construction of a new blood bank by MTN Foundation this year to serve mainly maternal and child health blood and blood product needs. Management has also started the process to upgrade the current NICU by creating additional space and equipment as an intervention to help improve the provision of needed critical neonatal care services and also intensified its collaboration with the Regional Directorate of Ghana Health Service.

Other quality interventions instituted by Management during the year under review included the introduction of new quality service portfolios, establishment of Cape Coast Cancer Registry for the capturing of cancer cases for appropriate interventions

(Partnership with MoH and ROMMEF), establishment of Oncology Suite for improved cancer treatment outcomes, Improvement in Medical oxygen supply, following the acquisition of a new medical oxygen plant, Improvement in health promotion and client education following the acquisition and installation of 6 digital signages for health promotional activities and Operationalization of General OPD Centre (Polyclinic). CCTH will continue to mainstream Quality of Care, Infection Prevention and Occupational Health and Safety into all its activities as enshrined in the National Quality Strategy.

One of the strategies that management aggressively pursued last year was the creation of enabling environment for the poor and needy to access specialist care in support of the government's Universal Health Coverage Strategy. We used our collaborative partnerships as a vehicle in delivering these services. During the year under review, five (5) Partners were involved in this endeavour. They include;

(1) Himalayan Cataract Project – A USA non-governmental organization partnered with us during the year to screen more than 10,000 persons for cataract and other eye conditions in about 59 communities, bused-in identified persons with various eye conditions free of charge and performed surgeries at the hospital to restore 1,134 sights also free of charge;

(2) Operation Smile Ghana – A Ghanaian non-governmental organization also supported us to screen and performed 29 Cleft Lip & Palate Repairs at the hospital free of charge for persons who hitherto would not be able to afford these specialized surgeries;

(3) Berlin Heart Institute – A German Academic Institute supported us in training our clinical staff in modern cardiology practices and also screened a number of children for free;

(4) Stanford University Hospital – A USA Academic Institution collaborated with us to screen persons for hernia within some communities in our catchment area and performed hernia surgeries for these people in the hospital

(5) University of UTAH – In partnership with this University, complicated Ear, Nose & Throat cases were also identified within the poor rural communities and surgeries performed in the hospital for these people who under normal circumstances would not have gotten the opportunity to benefit from these highly specialized surgeries.

The Hospital is also in the process of developing the new Medium-Term Strategic Plan 2020 - 2024. Meanwhile, the four (4) year Strategic Plan 2016 – 2019 has been reviewed and the outstanding issues considered for the new strategic plan. Unfortunately, the hospital finances almost all of its operations from its Internally Generated Funds (IGF).

As a result, any delays in the reimbursement of NHIS claims, which accounts for about 85% of our revenue, negatively affect our operations. As such, we are hopeful to see much more improvement in NHIS reimbursement system.

We continued with our innovative drive to bring in new technologies and equipment to improve service delivery. During the year, the hospital commissioned ultramodern Laboratory equipment to improve services at the hospital's laboratory and blood bank. These equipment brought tremendous improvement in quality and access to the health service delivery we provide to our clients.

In spite of the investments and achievements during the year, the hospital continues to be confronted with a number of challenges. Key among them are: High Institutional Maternal Mortality and Neonatal Deaths; Absence of Neonatal Intensive Care Unit; Expansion of infrastructure (Accident and Emergency Centre, Oncology Centre, Renal Centre, etc.); Encroachment of the hospital land; Inadequate accommodation for staff; Inadequate and ageing equipment, e.g. Power Generators, Laundry and CSSD equipment, etc.; Absence of a Relative Hostel; Overcrowding and congestion at OPD, and the Accident & Emergency Unit due to inadequate space; Inadequate Imaging, anaesthesia equipment, Endoscopy equipment, etc.

The Hospital's focus for the next 4 years will be the improvement on its governance structure and processes, infrastructural development, and enhancement of the equipment base of the hospital.

I would like to thank all our benefactors and partners for believing in our vision and working with us to help humanity.

Thank you.

DR. ERIC KOFI NGYEDU CHIEF EXECUTIVE OFFICER

### PREFACE

The CCTH 2019 Annual Performance Review was held on 13<sup>th</sup> February 2020 at the institution's Lecture Hall under the theme 'Redevelopment of the Cape Coast Teaching Hospital towards Quality of Health'. The review was aimed to take stock of the 2019 performance, identify and discuss the key issues that hindered the attainment of the goals planned for the year under review. The Performance Review was geared towards the assessment of the performance in line with the institution's Medium-Term Strategic Objectives. The review conference was chaired by Mrs. Doris Attafuah Boafo. In attendance to the review conference were members of the hospital's board, Heads of Units and Sub-BMC management teams, Representatives from the Ministry of Health as well as Ghana Health Service. Also present at the conference were; the CEOs of the other four Teaching Hospitals and their PPME and HIM officers, UCC-SMS, Security Service Commanders, and the Community leaders. The presentations at the event focused on the 2019 priorities of the hospital which are;

- 1. Intensify Clinical Care and Nursing Services
- 2. Expand Drug & Non-Drug Consumable and Commodity base
- 3. Deepen Institutional Public Health Interventions
- 4. Sustain gains in Governance, Finance, Management, and Leadership Systems
- 5. Boost Human Resource Base for service improvement
- 6. Expand Research, Training and other learning portfolios
- 7. Scale-up Support to Lower Levels of care
- 8. Broaden Technology, Equipment, Infrastructure and Residential Base for service delivery

The report is organised in four main sections with seventeen chapters, as follows;

- Section 1: It comprises of Chapter One and provides an Introduction and Background to the report. It also gives a summary of the overall performance under the institution's six Broad Medium-Term Strategic Objectives.
- Section 2: This section covers Chapter Two to Chapter Six. It discusses the Human Resource issues, Summary Clinical Services performance, Technical and General Services, Finance, Collaborations and Support.
- Section 3: This section covers Chapter Seven to Chapter Sixteen. It contains the performance of the Clinical sub-BMCs and Units including public health as well as Pharmaceutical Services.
- Section 4: This comprises Chapter Seventeen that includes the key Challenges and Mitigating Strategies and Conclusion.

## **SECTION 1**

## **CHAPTER ONE**

### INTRODUCTION

#### **1.0 BACKGROUND**

Evaluation of performance is cardinal in determining the appropriate strategies to implement towards the achievement of organizational goals and vision. The Cape Coast Teaching Hospital has a medium-term strategic plan (2016 to 2019) and the 2019 is the fourth-year into its implementation. Annual performance reviews are important to determine whether performances are in line with the set objectives of the hospital and that of the ministry of health's priorities. This is to identify the outputs achieved under the set medium-term objectives and to determine the efficiency, effectiveness and the impact of the hospital strategies as well as review relevance of the strategies. This report is a summary of 2019 performance of the hospital, which is the compiled performance reports from the various Sub-BMCs/Units in line with the strategic objectives of the hospital. The report also determines the key gaps and challenges that hinders on performance with mitigating strategies to address them. It also serves as a guide for evidenced-based policy decision-making and planning, as well as information referencing document for health research.

#### 1.1.1 PROFILE OF CCTH

The Cape Coast Teaching Hospital is one of the agencies of the Ministry of Health and the only tertiary institution in the Central Region of Ghana. With a current bed capacity of 400, the institution is mandated to provide tertiary clinical services, serve as a training centre for medical and post graduate programmes and to undertake research to improve the lives of the people. Established in August 1998 as a Regional Hospital and later upgraded to a Teaching Hospital status in 21<sup>st</sup> March 2014 with a Board following the establishment of the School of Medical Science at the University of Cape Coast, Ghana.

CCTH received accreditation for postgraduate training by the Ghana College of Physicians and Surgeons. The hospital works in close collaboration with the University of Cape Coast College of Health and Allied Sciences and it is the main training center for students of the School of Medical Sciences of the University. Other schools under the College of Health and Allied Sciences that also work in collaboration with the hospital includes; School of Nursing and Midwifery as well as School of Health and Allied Sciences. These schools train students at both undergraduate and postgraduate levels. The hospital is geographically located at the northern part of Cape Coast (capital town of the central region of Ghana) and bounded on the North by Abura Township, on the South by Pedu Estate and 4<sup>th</sup> Ridge, Nkanfoa on the East and Abura / Pedu Estate on the West.

#### 1.1.2 VISION

"A World-Class Leader in Tertiary Health Care, Medical Education and Research"

#### 1.1.3 MISSION

CCTH exists as a public tertiary healthcare organization providing quality services to people in Ghana; employing the services of well trained, skilled, committed and motivated workforce using evidence-based practice and cutting-edge technology.

#### **1.1.4 CORE VALUES**

- Customer Focus & Community Relationship
- Excellence
- Ethical Behaviour
- Honesty
- Creativity
- Teamwork

#### 1.2 MEDIUM-TERM STRATEGIC OBJECTIVES (2016 to 2019)

- 1. Increase the scope and improve the quality of services
- 2. Reduce communicable and non-communicable diseases
- 3. Improve governance, resource (human & financial) and management systems
- 4. Improve health research, teaching and excellence learning experience
- 5. Intensify support to the lower level of care and service delivery points
- 6. Improve infrastructure and equipment base for the delivery of quality service

### **1.3 SERVICES PROVIDED AT CCTH**

The hospital runs Outpatient and In-patient services in both general and specialized areas, diagnostic and rehabilitation services. The following are the services currently available as outlined in table 1.3.1 below.

#### Table 1.3. 1: Current Health Care Services

CLINIC	AL SERVICES
GENERAL CLIN	NICAL CARE SERVICES
1. General / Family Medical	
2. Accident & Emergency Care	
1. Wound Care Clinics	
3. General Paediatrics Clinic	
SPECIALISED CL	INICAL CARE SERVICES
A Internal Medical Clinics	P. Surgical Services
A. Internal Medical Clinics	2. Concret ourgony clinic
1. Intensive Care Services	2. General surgery clinic
2 Dishatia 8 Lhusantanaian	- Thyrold & Diedst (cancer & chemotherapy)
1. Sickle Cell Clinic	5. Neuro-Surgical Clinic
2. Endocrine Clinic	6. Burns & Plastic Surgical Clinic
3. Gastro Intestinal Clinic	7. Orthopaedic Surgical clinic
4. Dermatology Clinic	8. Paediatrics surgical clinic
5. Hepatitis Clinic	E. DEENT Services
6. Cardiology Clinics	1. Dental & Maxillofacial Clinic
7. Haemodialysis services	2. Eye Care
F. Public Health Services	3. Ear, Nose and Throat clinic
1. Child Welfare Clinic	G. Obstetric & Gynaecological Services
2. Family Planning	1. Obs & Gynae emergencies
3. HIV Counseling	2. Antenatal clinic
4. TB Dot Centre	3. Post-natal clinic

	CLINIC	CAL SE	RVICES
5.	Adolescent Clinics	4.	Gynaecology clinic
H. Re	habilitation Services		
1.	Physiotherapy		
2.	Diet Therapy		
3.	Clinical Psychology		
4.	Speech Therapy		
	CLINICAL INV	<b>ESTIGA</b>	ION SERVICES
I. Im	aging	J. Lab	oratory Services
1.	MRI	1.	Haematology
2.	CT Scan	2.	Serology and Immunology
3.	Fluoroscopy	3.	Pathology
4.	Mammography	4.	Biochemistry
		5.	Microbiology
		6.	ELISA test
		7.	Infectious markers
		8.	Tumour/oncogenic markers
		9.	Fertility markers
		10.	Thyroid and cardiac profile

#### **1.4 PRIORITIES FOR 2019**

- 1. Intensify Clinical Care and Nursing Services
- 2. Expand Drug & Non-Drug Consumable and Commodity base
- 3. Deepen Institutional Public Health Interventions
- 4. Sustain gains in Governance, Finance, Management and Leadership Systems
- 5. Boost Human Resource Base for service improvement
- 6. Expand Research, Training and other learning portfolio
- 7. Scale up Support to Lower Levels of care
- 8. Broaden Technology, Equipment, Infrastructure and Residential Base for service delivery

# 1.5 SUMMARY OF 2019 CCTH PERFORMANCE UNDER THE STRATEGIC OBJECTIVES

The hospital's performance for 2019 was evaluated against the 6 medium-term strategic objectives of the hospital. Table 1.5.1 below provides an overall summary at a glance, the performance of the hospital in terms of the outputs achieved and their correspondent outcomes. Further, the table also outlines the outputs achieved at the level of various Sub-BMCs/Unit. Most importantly, the table outlines the gaps under each of the objectives of the hospital, critical information for the development of the next strategic plan of the hospital.

2019 ANNU	AL OUTCO	ME AND O	UTPUT PER	FORMANC	E	
CCTH Objective 1: INCREA	SE THE SO	COPE AND	<b>IMPROVE T</b>	HE QUALI	TY OF SEI	RVICES
		PITALWIDE Actual Perfo	<u>LEVEL</u> ormance Tre	end	2019 Target	Remarks
Access and Impact	2016 Appual	2017 Annual	2018 Annual	2019 Annual		% Diff.
i. Total Institutional Death	1,097	1,148	1,120	1,307	5% Decr.	16.6% incr.
ii. Institutional death rate iii. Theatre Death Rate	10.2% -	8.8% 0.4%	9.0% 0.3%	10.3% 0.6%	-	Incr. Incr.
iv. Low birth rate	16.2%	13%	13.5%	16.1%	-	Incr.
v. Stillbirth rate (/1000LB)	54	35	37	42	-	Incr.
vii Total Macerated Still Birth	71	54	89	87	-	34.5% Incr. 2.2%
viii Institutional Maternal	1/0	1335	860	07		decr.
mortality ratio (/100,000LB)	143	1000	000	920	5.00/	0.70/ lp.er
maternal deaths increased by 3.7%	41	41	21	20	decr.	3. <i>1</i> % INCL
x. Couple year protection	2,277.6	1507	1,521.6	1,562.5	5% Incr.	2.7% Incr.
xi. Institutional infant mortality rate (/1000LB)	82	65	69	91	-	Incr.
xii. Institutional neonatal mortality rate (/1000)	72	59	63	80	-	Incr.
xiii. Number of institutional neonatal deaths	207	180	197	239	5% decr	21.3% Incr.
xiv. Number of Institutional infant death	236	201	216	272	-	25.9% Incr.
xv. Under-five mortality rate (/1000LB)	87	71	77	101	-	Incr.
xvi. Institutional under-five mortality	250	219	242	301	-	24.4% Incr.
	Å	ctual Perfo	ormance Tre	nd	2019 Target	
Access and Quality Outcome	2016 Annual	2017 Annual	2018 Annual	2019 Annual		
xvii. Percentage of clients satisfied with overall services at the institution	-	96.8%	87.3%	97%	-	9.7% incr.
xviii. Patients with health insurance	101,957	109,280	130,557	146,277	-	12% incr.
xix. Patients without Health insurance	8,111	8,574	27,607	21,779	-	21.1% decr.
xx. Total OPD Attendance	110,068	117,854	158,164	168,056	-	6.3% incr.

### Table 1.5. 1: Summary of 2019 Performance under the Strategic Objectives

#### 2019 ANNUAL OUTCOME AND OUTPUT PERFORMANCE

xxi.	Total Referrals-In	3,443	4.386	4,292	4,447	-	3.6% incr.
xxii.	OPD cases seen per	1:1184	1:1030	1:1163	1:1098	-	incr.
	doctor						
xxiii.	OPD Cases seen per	1:1829	1:1849	1:1418	1:1255	-	incr.
vviv	Specialist Percentage of Staff		55.9%	36.5%	62.5%		incr
^^IV.	satisfied with working		55.370	50.570	02.570		
	conditions						
XXV.	Total Patients	10,666	14,444	10,865	11,088	5%	2.1% incr.
	admission					incr.	
XXVİ.	Percentage of patients	-	35%	25.8%	40.4%	-	14.6%
	admitted due to external						Incr.
xxvii.	Percentage of neonatal	-	28%	26.1%	27.2%	-	1.1% incr.
	admissions due to		2070	2011/0	21.270		
	external referrals						
xviii.	Percentage of maternal	-	49%	41.4%	27.2%	-	14.2%
	admissions due to						decr.
	external referrals						
xxix.	Nurse and Midwife	1:21	1:20	1:20	1:16	-	Decr.
	admission ratio						
XXX.	Percentage bed	55%	53%	51%	55%	-	incr.
	occupancy						
XXXI.	Average length of stay	5.4	4.8	5.1	5.6	-	incr.
	(PIUXY-C/S, Annendectomy severe						
	malaria in children)						
xxxii.	Average length of stay	-	2.8	4.2%	3.0	-	Decr.
	at the Emergency ward						
xxiii.	Total surgical	3,650	3,853	3,728	4,815	-	29.1%
vviv	Operations	152.1	151.1	133.1	107.1		Incr.
	ratio	132.1	134.1	155.1	127.1	-	Deci.
xxxv.	Total deliveries declined	2,904	3,055	3,160	3,027	5%	4.2%
						incr.	decr.
xxvi.	Delivery to midwife ratio	29:1	29:1	30:1	20:1	-	Decr.
	(all midwives at the						
xxvii	Caesarean section rate	38.1%	35.9%	46.8%	41.2%	_	Decr
xviii.	% Tracer Drug	84.8%	96.1%	96.1%	88.5%	100%	Decr.
	Availability	0 110 /0	0011/0	001170	001070	10070	20011
xxix.	Prescription to	13,491:1	13,511:1	16,097:1	8,288:1	-	Decr.
	pharmacy ratio						
xl.	Percentage antibiotic	13.5%	15.2%	18.4%	16.18%	-	Decr.
vli	Percentage Injectable	1.6%	1.8%	6.3%	5.8%		Decr
xlii	Utilization of	-	79.2%	97.3%	99%	-	
	Pharmaceutical Care		10.270				
	interventions						
xliii.	Utilisation of laboratory	-	-	78%	62.5%	-	
	services						

#### 2019 ANNUAL OUTCOME AND OUTPUT PERFORMANCE xliv. Total laboratory 159,372 266,635 5.9% Incr. 275,329 291,677 -Investigation Utilisation of radiological 79.4% xlv. --86.9% -Incr. services Radiology investigation 14,286 17,342 20,766 2.3% xlvi. 20,285 decr. Availability of non-drug xlvii. 95.85% 96.37% Incr. consumables (proxy: gauze, gloves, syringe, plaster, cannula, catheter, infusion and cleaning agent) **Outputs** 1. Sustained and improved on the E-Health project implementation strengthened with an improvement in records keeping and data management) 2. Established a Cancer Registry at CCTH (Cape Coast Cancer Registry – in Partnership with MoH and ROMMEF) 3. Lamina Flow Centre set up and operational (received support from Pharma nova LTD) 4. Partnership with Himalayan Cataract resulting in an increased access to eye care services for the rural communities 5. Strengthened Cubicle Nursing Practice & linked medical teams with nurses 6. Speech therapy services strengthened 7. Trained 51 staff on sign language 8. Increased Service Portfolio such as, Colorectal, Interventional Radiology and Paediatric Urology 9. Commenced interventional radiology services in February Emergency drugs stock on all wards on-going 10. 11. Expansion of clinical pharmacy practice on wards ongoing Periodic issuing of medicines bulleting to enhance dispensing ongoing 12. Himalayan Cataract Project(HCP) and CCTH partnership commenced surgical outreach 13. programme to increase access to eye care services 14. Hearing screening done for 37 Neonates 15. Quality Improvement Activities Intensified (QA Liaison Officers appointed at each ward/unit) Operationalized the Polyclinic to increase access to primary health care 16. Enforcement of Total Nursing Care and Infection Prevention Control Practices (IPC) 17. Implementation of the use of WHO Safe Childbirth Checklist and discharge plan 18. Maiden edition of the World Diabetes Day was celebrated at which a total of 104 staffs and 89 19. non-staffs were screened for DM and Hypertension 20. Perioperative standard protocols have been developed and displayed at Wards and Surgical Suite Instituted pre-operative assessment session on the ward 21. Reduced the number of cancelations of elective cases by 90% 22. Provided health education to the public on various TV and Radio stations 23. Introduced the use of digital Signages (TV) for health education at the patient waiting areas 24. Held monthly mortality meetings (i.e. Maternal Health, Child Health and Accident and 25. **Emergency Mortality Audit)** 26. Strengthened skin to skin mother and child body contact immediately after delivery (Kangaroo mother care) 27. Twenty-five (25) new investigations were introduced at the laboratory unit (hormones, tumour and infectious markers).

2019 ANNUAL OUTCOME AND OUTPUT PERFORMANCE
28. Collaborated with 6 Partners to provide free medical services to rural communities (HCP, Operation Smile, UTA, Stanford, etc)
29. Improved the safety and quality of blood transfused to patients by acquiring an ELISA Analyzer for confirmatory testing of all Transfusion Transmissible Infections (TTIs)
30 Two Pharmacy outlets created at the Polyclinic and ETAT
31 Improvement in Medical oxygen supply following acquisition of a new medical oxygen plant
OUT-PATIENTS SUB-BMC
1. Spearheaded operationalization of the Polyclinic.
2. Maiden edition of the World Diabetes Day was celebrated at which a total of 104 staffs and 89
non-staffs were screened for DM and Hypertension.
3. Started two specialists' clinics in the afternoons (Paediatric Urology, and Colorectal Surgery).
4. Conducted two waiting time surveys.
5. Organized one peer review of the OPD 'up' and 'down' to enhance guality of care.
ACCIDENT AND EMERGENCY SUB-BMC
1. Utilization of emergency services for intended purpose – 44% yellow and above (same as 2018).
Ultimate target: 100%, 2019 target was 50%
2. Emergency medication ward stock: 127% availability (>100%)
3. 1270% achieved for procedure capturing. Target was 300%
4. Conducted mortality audits of all death
5. Death certificate protocol initiated in January 2019.
DIAGNOSTICS SUB-BMC
<ol> <li>Improvement projects were conducted (Review of some policies, protocols, SOPs were done) at the lab</li> </ol>
<ol> <li>Implementation of the Food and Drug Authority's baseline assessment recommendations at the lab</li> </ol>
MATERNAL HEALTH SUB-BMC
1. Organised daily clinical teaching/tutorial sessions for the Sub-BMC
2. Conducted monthly maternal mortality conference – all maternal mortalities audited
3. Held joint perinatal mortality audits with Child Health
4. Improved collaboration with Child Health
5. Effective collaboration of Doctors, Midwives and Nurses in direct patient care
6. Enforcement of total nursing care policy and infection prevention control practices
7. Skin to skin mother and child body contact immediately after delivery
8. Implementation of the use of WHO safe childbirth checklist and discharge plan
9. Conducted weekly ward rounds
10. CCTH – Kybele collaborative training in maternal and safe childbirth and quality improvement
11. 100% usage of LHIMS platform to provide care
CHILD HEALTH SUB-BMC
1. Successfully celebrated World Prematurity Week
INTERNAL MEDICINE SUB-BMC
-
SURGICAL SUB-BMC
1. Prepared 24-hour duty roster to ensure staff presence at the surgical wards and surgical suite for prompt and quality care
2. Perioperative standard protocols have been developed and displayed at wards and surgical suite
3. Institute pre-operative assessment session on the ward
4. Reduced the number of cancelations of elective cases by 90%
DENTAL, EYE, EAR, NOSE & THROAT (DEFNT) SUB-BMC
1. Successful collaborative surgeries were done with the team of all units to conduct series of
Surgeries
i. ENT surgeons from the University of Utah, USA

	2019 ANNU	AL OUTCO	ME AND O	UTPUT PER	FORMANC	E	
ii.	Himalayan Cataract F	Project \ Na	ational Cata	ract Outreach	n Programm	e – (12.75	6)
2. Collabo	prated with Operation-	Smile Gha	na to provid	le free Cleft li	ip and palate	e-(29 surg	eries)
	PUBLIC HEALTH SUB-BMC						
1. Increa	sed participation of p	ublic health	unit at war	ds			
		PHARMA		SERVICES			
1. Created	a an emergency drug	STOCKS IN 2	III wards	SERVICES			
1. Month Depar	ly meetings with Moth	ners Living	with childre	n with Cereb	ral Palsy at	Physiothe	rapy
2. Organ	ised regular education	nal forum to	o educate si	taff on health	y lifestyle		
3. The P	hysiotherapy Departm	nent educa	ted patients	and relatives	s on prevent	tive medici	ine
4. Update clients	ed diet educational m s.	aterials for	various diet	t related cond	ditions, whic	h is being	given to
5. Weekl nutritic	ly tutorials on dietary ı on unit	manageme	ents of condi	itions and be	st practices	by the die	t and
6. Psych	ology unit provided ef	fective Clir	nical Psycho	logical Servi	ces to in-pat	tients and	out-
7. The participation 7. The participation 7. The participation of the pa	sychology unit Provide	ed Psychoe	education to	in-patients a	and out-patie	ents(OPD)	at the
8. Availa	bility of Psychological	tests such	as the Dep	ression Anxie	ety Stress Ir	nventory a	nd Becks
Depre	ssion Inventory				-		
CCTH C	BJECTIVE 2: REDU	CE COMM		AND NON-C	COMMUNIC	ABLE DIS	SEASES
		HO2P		LEVEL			
			Actual Porto	ormanco Tro	nd	2010	Pomarks
			Actual Perfo	ormance Tre	nd	2019 Target	Remarks / % Diff.
Access an	d Quality Outcome	Annual	Actual Perfo 2017 Annual	2018 Annual	2019 Annual	2019 Target	Remarks / % Diff.
Access an i. Avai to a hvai	d Quality Outcome ilability and access ppropriate hand iene institution	<b>2016</b> <b>Annual</b> 0.2	Actual Perfo 2017 Annual 0.18	ormance Tre 2018 Annual 0.8	<b>2019</b> <b>Annual</b> 0.15	2019 Target	Remarks / % Diff. Decr.
Access an i. Avai to aı hygi ii. Num was	d Quality Outcome ilability and access ppropriate hand ene institution hber of hand hing basins	<b>2016</b> Annual 0.2 240	<b>2017</b> <b>Annual</b> 0.18 240	2018           Annual           0.8           240	<b>2019</b> <b>Annual</b> 0.15 240	2019 Target	Remarks / % Diff. Decr.
Access an i. Avai to a hygi ii. Num was iii. Avai appi was	id Quality Outcome ilability and access ppropriate hand iene institution hber of hand hing basins ilability and ropriate disposal of te	2016 Annual 0.2 240 0.9	2017           Annual           0.18           240           0.8	2018           Annual           0.8           240           0.3	2019 Annual 0.15 240 0.6	2019 Target	Remarks / % Diff. Decr. - Incr.
Access an i. Avai to aj hygi ii. Num was iii. Avai appi was iv. Num disp	id Quality Outcome ilability and access ppropriate hand iene institution hber of hand hing basins ilability and ropriate disposal of te hber of waste iosal bins	2016 Annual 0.2 240 0.9 270	2017           Annual           0.18           240           0.8           270	2018           Annual           0.8           240           0.3           270	2019 Annual 0.15 240 0.6 270	2019 Target	Remarks / % Diff. Decr. - Incr.
Access an i. Avai to a hygi ii. Num was iii. Avai appi was iv. Num disp v. Avai insti	id Quality Outcome ilability and access ppropriate hand iene institution hber of hand hing basins ilability and ropriate disposal of te hber of waste osal bins ilability of toilet tution	2016 Annual 0.2 240 0.9 270 0.23	2017           Annual           0.18           240           0.8           270           0.23	2018         Annual         0.8         240         0.3         270         0.23	2019 Annual 0.15 240 0.6 270 0.23	2019 Target	Remarks / % Diff. Decr. - Incr. -
Access an i. Avai to a hygi ii. Num was iii. Avai appi was iv. Num disp v. Avai insti vi. Tota func insti	ilability and access ppropriate hand iene institution hber of hand hing basins ilability and ropriate disposal of te hber of waste osal bins ilability of toilet tution al number of ctioning toilet at the tution	2016 Annual 0.2 240 0.9 270 0.23 92	2017           Annual           0.18           240           0.8           270           0.23           92	2018         Annual         0.8         240         0.3         270         0.23         92	2019 Annual 0.15 240 0.6 270 0.23 92	2019 Target	Remarks / % Diff. Decr. - Incr. - -
Access an i. Avai to a hygi ii. Num was iii. Avai appi was iv. Num disp v. Avai instii vi. Tota func instii vi. Surg rate	ilability and access ppropriate hand ene institution hber of hand hing basins ilability and ropriate disposal of te hber of waste osal bins ilability of toilet tution al number of ctioning toilet at the tution gical site infection	2016 Annual 0.2 240 0.9 270 0.23 92 -	2017       Annual       0.18       240       0.8       270       0.23       92       -	2018         Annual         0.8         240         0.3         270         0.23         92         -	2019 Annual 0.15 240 0.6 270 0.23 92 0.27	2019 Target	Remarks       /         /% Diff.         Decr.         -         Incr.         -
Access an i. Avai to a hygi ii. Num was iii. Avai appi was iv. Num disp v. Avai insti vi. Tota func insti vi. Surg rate	ilability and access ppropriate hand iene institution hber of hand hing basins ilability and ropriate disposal of te hber of waste iosal bins ilability of toilet tution al number of ctioning toilet at the tution gical site infection	2016 Annual 0.2 240 0.9 270 0.23 92 - HOSPITAL	2017       Annual       0.18       240       0.8       270       0.23       92       -	2018         Annual         0.8         240         0.3         270         0.23         92         -         EL OUTPUTS	2019 Annual 0.15 240 0.6 270 0.23 92 0.27 S	2019 Target	Remarks / % Diff. Decr. - Incr. - - -
Access an i. Avai to a hygi ii. Num was iii. Avai appr was iv. Num disp v. Avai insti vi. Tota func insti vi. Surg rate 1. Ongoi	ad Quality Outcome ilability and access ppropriate hand iene institution hber of hand hing basins ilability and ropriate disposal of te hber of waste losal bins ilability of toilet tution al number of ctioning toilet at the tution gical site infection	2016 Annual 0.2 240 0.9 270 0.23 92 - HOSPITAL UNDP to m	2017           Annual           0.18           240           0.8           270           0.23           92           -	2018         Annual         0.8         240         0.3         270         0.23         92         -         EL OUTPUTS         segregate was	2019         Annual         0.15         240         0.6         270         0.23         92         0.27         S         aste approp	2019 Target	Remarks       /         % Diff.         Decr.         -         Incr.         - <t< td=""></t<>

2019 ANNUAL OUTCOME AND OUTPUT PERFORMANCE
<ol> <li>Screening of catering staff of the hospital and some of the food vendors within the parameters of CCTH premises and mini market.</li> </ol>
<ol> <li>Regular health promotion and education done at surrounding communities, schools, churches and media as well as at the OPD on various diseases of public health concern</li> </ol>
5. Created awareness on the prevention and management of diet related conditions through the various media
6. Weekly tutorials on dietary managements of conditions and best practices
7. Safe disposal of unclaimed bodies
8. Successfully disinfected wards after discharge of contagious diseases
9. Organised training on sterilisation for Treatment Room, Delivery Suite, ETAT and A&E
10. A training organized for selected staff on waste management.
OPD SUB-BMC
1. An average of three health talks were held weekly at all clinical areas
2. Featured 5 times on TV and 10 times on Radio for varied health talks
A&E SUB-BMC
1. Use of disposable gowns for resuscitations and procedures implemented.
DIAGNOSTICS SUB-BMC
MATERNAL REALTR
<ol> <li>Carried out educational talks on radio and TV stations (Cape, ATL, Obrapaa FM, Radio Central, Coastal TV</li> </ol>
<ol> <li>Celebrated World Prematurity Week in November 2019. Organised health seminar, float/walk and durbar</li> </ol>
INTERNAL MEDICINE SUB-BMC
1. Organised infection control training
SURGICAL SUB-BMC
1. Breast cancer screening organised in breast cancer awareness month, 384 patients screened.
2. Infection prevention practices were adhered to ensure safety of staff and patients.
<ol><li>IPC protocols displayed appropriately on all the wards and duly enforced</li></ol>
<ol> <li>Ongoing collaboration with UNDP to manage and segregate waste appropriately at MSW, FSW &amp; surgical suite</li> </ol>
DEENT SUB-BMC
PUBLIC HEALTH SUB-BMC
1. Regular assessment and review of TB and MDR cases in Central Region
2. Screened all patients with cough for TB
3. Provided public education on non-communicable disease
4. Increased Vaccination for Penta, OPV and Rota Virus Vaccine
5. Advocated for TV's to be used for health education at waiting areas in the hospital
PHARMACEUTICAL SERVICES
-
REHABILITATION
-

2019 ANNUAL OUTCOME AND OUTPUT PERFORMANCE
CCTH OBJECTIVE 3: IMPROVE GOVERNANCE, RESOURCE (HUMAN & FINANCIAL) AND MANAGEMENT SYSTEMS
3.1 Improve on Governance and Management System
HOSPITALWIDE LEVEL OUTPUTS
1. Established the Cancer Registry at CCTH in February 2019 in collaboration with MoH and ROMMEF
2 Various Committee set up:
2. Valious Committee Set up,
b. Set up a website, editorial and health marketing committee
c Construction of Oncology
d. Construction of NICU.
e. Renal Transplant Centre
f. Construction of Accident & Emergency Department
g. 2016 – 2019 Medium-Term Strategic plan Evaluation Committee
h. CCTH and UCC SMS Partnership committee to develop MoU between CCTH and UCCSMS
i. Hospital transfusion committee
<ol><li>The following meetings were held;</li></ol>
a. Four (4) board meetings, 1 meeting held at Sogakope with sponsorship from MOH in March
b. directors' meetings,
c. 1 technical and planning committee meeting held
d. 1 house management meeting
e. I welve (12) Data Validation meetings.
f. Ten (10) Quality Assurance meeting monthly
g. Five (5) Audit Committee meetings
1. 5 Website Committee meeting heid     DEENT insurgemented in February 2010
2. DEENT inaugurated in February 2019
5. Received the following ACCREDITATIONS for postgraduate/residency training,
b. Receive accreditation for surgery
c Group accreditation for Family Medicine (Cluster of Hospitals)
d Received Partial Accreditation in Radiology & Paedics
4. Intensified Activities to secure the hospital land (Mounting of Pillars on the boundaries. Planting of
trees at the boundaries in collaboration with the forestry commission. Joint patrols with the
Assembly and the police, court injunction on unauthorised developments, etc)
5. Intensified PPM activities on equipment and estates
6. Intensified Activities to secure the hospital land (Mounting of Pillars on the boundaries, Planting of
trees at the boundaries in collaboration with the forestry commission, Joint patrols with the
Assembly and the police, court injunction on unauthorised developments, etc)
7. Oxygen plant secured and installed in March and being utilised (supplying oxygen to all piped
clinical areas for an oxygen supply)
8. Forestry commission engaged, 2000 tick tree seedling purchased and being planted on the
boundaries of the hospital land as part of strategy to prevent encroachment
9. Consultations done with hotel facilities in Accra to Facilitate hotel accommodation arrangements
for officers on official duties outside Cape Coast
10. 2019 National Competitive Tender (NCT) was completed with 44 companies bidding for various
lots and products
11. Development of work plans, bench aids and standard operating procedures for effective stock
management.
12. Conducted quarterly and end of year stock count of all stocked items.
13. Development and periodic updates of price lists for effective costing of issued supplies.
14. 250 KV slightly used generator received from Cal Bank in March, leading to improvement in
Electricity back-up system
2019 ANNUAL OUTCOME AND OUTPUT PERFORMANCE
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15. One (1) double cabin pick-up procured through the MoH Hire-purchase scheme
16. Renovated block of flats for staff and bungalows for Senior Managers
17. Ensured the timely submission of National Health Insurance Claims to the NHIA office
Institutional Policies & Agreements/MOUs
<ol> <li>Institutional Policies Developed and Approved;</li> </ol>
a. Donation Policy,
b. Internal Management Policy on sub-BMC and units
c. Staff Accommodation Policy Approved
a. Correspondence Management Policy developed
f Dress code policy
2 Institutional Policy Drafted includes:
a Sick Staff Policy document
h. Human Resource Policy document
b. Transport Policy document
c. Transport Folicy
d. Institutional Policy Guideline on Asset Management
e. Institutional ICT Policy
f. Data Backup Policy was 80%
g. Institutional Research Policy
h. Institutional Monitoring and Evaluation Policy
3. In Partnership with the Himalayan Cataract Project to conduct surgical eye outreach
programme to increase access to eye care services
4. In Partnership with German Heart Institute for the training of staff on ECOCARDIOGRAPHY
Institutional Collaborations
1. Collaborated with the following institutions to conduct surgeries;
a. University of San Diego California-Team management in trauma
c. Stone Brook University-treating people with colour
d University of UTAH- fellowship for ENT consultant and ENT workshop (Operation smile
Ghana)
e. Himalayan Cataract Project
Institutional Plans
1. Performance Contracts between CEO and Directors signed for 2019
2. Organised Program of Work and budget workshop for Business Managers and Heads of units
in.
3. A task team set up to Review General OPD (Polyclinic) block usage
4. Published and disseminated approved POW for sub-BMCs and Units
5. A task team set up to Review General OPD (Polyclinic) block usage
Institutional Monitoring and Evaluation
1. Conducted Summative Evaluation on the CCTH's 2016 – 2019 Medium-Term Strategic Plan
and submitted the report to key stakeholders
2. Organized the 2018 Annual Performance Review in March, 2019
3. Quarterly monitored the hospitals 2019 annual programme of work implementation
6. Coordinated the development of the 2018 Teaching Hospital's Key Performance Indicators
(KPIs) report
7. Led the PowerPoint presentation of the THs joint (with the THs KPI) 2018 annual and 2019
mid-year reports on behalf of all 4 teaching hospitals (KBTH, KATH, TTH and CCTH) at the
Ministry of Health's annual and mid-year inter-agency performance review conference

2019 ANNU	AL OUTCO	OME AND O		FORMANC	E	
8. Developed a stakeholder	disseminat	tion plan for	the Cape Co	ast Cancer	Registry	
OUT-PA	ATIENT DE	EPARTMEN	NT (OPD) S	UB-BMC		
1. Organized one peer revie	w of the Ol	PD 'up' and	'down' to enl	nance qualit	y of care.	
<ol><li>Spearheaded operational</li></ol>	ization of th	ne Polyclinic	;			
		A&E SUB-B	BMC			
1. Five (5) Sub-BMC meetin	gs held					
	DIAG	NOSTICS S	UB-BMC			
1. Mortuary re-organization mee	etings held	at the pathology up				
2. Organised regular stall meeti	ngs at the p	procentatio	III no and conti		ccional ad	ucation at
the laboratory unit	/ meetings,	presentatio		luous proie	55101181 Eu	ucation at
	MATERN	IAL HEALT	H SUB-BMC			
1. The Sub-BMC held four (4) N	lanagemen	it meetings i	n 2019.			
2. Organized Unit level staff dur	bars					
3. About 78% of staff appraised						
1 4 sub-BMC meetings held	CHILL	D NEALIN S				
2 1 Staff durbar held (55 staff	attended)					
	INTERNA		E SUB-BMC			
1. A functional Sub-BMC Office	created			·		
	SUF	RGICAL SU	B-BMC			
1. Collaborated with the follo	owing instit	utions to cor	nduct surgeri	es;		
University of San Dieg	go Californi	a-Team mai	nagement in	trauma		
<ul> <li>Derriford Hospital, UK</li> </ul>	(-hernia me	sh operatior	า			
Stone Brook Universit	y-treating p	people with a	colour			
University of UTAH- fe	ellowship fo	or ENT cons	ultant and El	VT worksho	p (Operati	on smile
Ghana)			DMC			
1 Incuration of Sub RMC	D and forma	EENI SUB-	BIVIC	<u>n</u>		
	anu ionna		agement tear	11		
	PUBLI	CHEALTH	SUB-BMC			
1. Developed an organogram	m foe the U	Jnit				
	PHARMA	ACEUTICAL	. SERVICES			
		-				
	REHAB	ILITATION	SERVICES			
3.2 Improve on Human Resour	ro and Ma	- nacement (	System			
3.2 mprove on numan Resour	HOS	PITAI WIDF	FIFVFI			
	A	ctual Perfo	ormance Tre	nd	2019	Remarks /
	0040	0017	0040	0040	Target	% Diff.
	2016 Annual	2017	2018	2019		
i Workplace related injury	0%	0%	0%	0%	-	
resulting in death or	070	070	070	070		
incapacitation						
ii. Total staff injury recorded	-	13	8	20	-	150%
iii. Health workers who	-	100%	100%	100%	-	
benefited from occupational						
health and safety						
interventions					1	

#### 2019 ANNUAL OUTCOME AND OUTPUT PERFORMANCE iv. Percentage of staff satisfied 55.9% 36.5% 62.5% -at the institution v. Percentage of health staff 0.6% 0.4% 0.1% with accidental needle injury vi. Proportion of total staff 36.5% 60% 37.7% 39% appraised vii. Total number staff 22.8% 1,199 1.320 1,325 1,627 incr. 1:12 viii. Consultant to resident 1:7 1:7 1:4 Decr. doctor ratio ix. Doctor to Nurse and 5:1 4:1 6:1 5:1 -Incr. midwife ratio x. Delivery to midwife ratio (i.e. 1:29 1:20 -1:30 Decr. all midwives at the institution) xi. Delivery to midwife ratio (i.e. 1:62 1:77 1:75 \_ Decr. productivity of the midwives at only the delivery suite) xii. Doctor to pharmacy ratio is 10.3:1 12.6:1 15.1:1 8.5:1 -Decr. still high xiii. Prescription to pharmacy 13.491:1 13.511:1 16.097:1 8.288:1 Decr. ratio xiv. Number of welfare 1 1 1 1 \_ packages available for staff xv. Surgeon to surgery ratio 152:1 127:1 154:1 133:1 -Decr. xvi. Nurse and midwives to 1:21 1:20 1:20 1:16 Decr. admission ratio **HOSPITALWIDE LEVEL – OUTPUTS** 1. Appointed Heads of Departments and lead Clinicians. 2. Mechanised 47 of CCTH Staff onto government payroll in the first half of 2019 3. Conducted Change of grade interview for 367 staff. 4. Staff on Study Leave in 2019: a. 50 Staff granted study leave with pay b. Total study-leave-without pay = 1 c. Staff on sandwich programme = 19 5. 39.9% staff were appraised in 2019 6. Staff and Transfers: a. Transfer out = 53 staff b. Transfer $\ln = 2$ 7. Staff Wastage: a. Staff who went on compulsory retirement = 9b. Voluntary retirement = 1 c. Staff death = 1d. Staff resignation = 4e. Staff vacation of post = 2 8. Acquisition of adequate staff & logistics to strengthen Internal Audit Unit ongoing 9. Redistribution of staff in line with staff norms within all sub-BMCs and units based on results of workload analysis **OPD SUB-BMC** a. A total of 82 (94.3%) of staff appraised A&E SUB-BMC 1. 8 new medical officers available

#### 2019 ANNUAL OUTCOME AND OUTPUT PERFORMANCE

2. Two nurses sponsored for specialisation

#### DIAGNOSTICS SUB-BMC

#### MATERNAL HEALTH SUB-BMC

1. About 78% of staff appraised

#### CHILD HEALTH SUB-BMC

- 1. Human Resource development Further Studies with Ghana College of Midwifery and Nursing
  - 7 nurses Paediatric associate programme
  - 3 nurses NICU associate programme
  - 1 nurse NICU membership
  - 1 nurse Critical Care Nursing
  - 1 nurse Midwifery

#### INTERNAL MEDICINE SUB-BMC

SURGICAL SUB-BMC

1. Increased in staff strength especially urologists, anaesthetists, general nurses and midwives DEENT SUB-BMC

#### -PUBLIC HEALTH UNIT

#### PHARMACEUTICAL SERVICES

1. Ten (10) Pharms and one (1) Pharm Technician recruited

#### REHABILITATION SERVICES

1. Two (2) staffs at physiotherapy unit were added (Physiotherapist and Physiotherapist assistant)

# 3.3 Improve on Finance Resource and Management System

	Actual Performance Trend				2019	Remarks /
Access and Impact	2016	2017	2018	2019	Target	% Diff.
-	Annual	Annual	Annual	Annual	_	
i. Total Revenue GH¢	14,161,8	17,089,47	18,863,2	21,579,6	24,387,	14.4%
	33	0.00	06.32	80.33	598.98	incr.
ii. Total Expenditure GH¢	12,778,4	14,027,78	19,935,9	20,761,1	24,387,	
	83	4	83.92	26.11	598.98	
iii. Total Drug Income GH¢	3,874,68	4,591,576	5,962,67	5,747,49	6,500,0	3.6% decr.
	9		9.10	5	00	
iv. Percentage of submitted	-	58.68%	20.88%	21.89%		
claims paid						
v. Debtors days increased	-	283.22	346.29	393		
vi. Creditors days decreased	-	184.73	100.82	175		
vii. Proportion of IGF revenue	-	4.13%	3.52%	3.51%		
spent on PPM went up						
viii. Percentage IGF paid as	-	11.47%	9.68%	9.55%		
compensation decreased						
ix. Ratio of cash revenue to	-	-	0.66:1	1.32:1		
NHIA reimbursement						
increased						
x. Percentage of NHIA	100%	100%	100%	100%		
Claims Submitted on time						
xi. Percentage of rejection on	0%	0%	0%	0%		
claims submitted to NHIS						

2019 ANNU	AL OUTCO	OME AND O	JTPUT PER	FORMANC	E	
xii. Proportion audit	100%	100%	100%	100%		
recommendations						
xiii. Number of Audit	-	-	4	5		
Committee meetings						
//////////////////////////////////////	HOSPITAL	WIDE LEVE	<u> </u>	rs		
1. Received Financial Clearance	e for 209 va	arious cadre (	of staff throu	gh the supp	port of MO	H to fill the
2. Clearance for eighty (80) IGF	staff offloa	ded to GOG	thereby pro	viding som	e relief on	IGF funds.
3. Retrieved an amount of GH¢6 their bills through the signing	6,032.00 fro	om patients v kings.	vho were dis	charged bu	t were una	ble to pay
4. Helped eight (8) patients to re	egister with	NHIS				
<ol> <li>Vodafone Ghana Ltd. Paid th of their social responsibility.</li> </ol>	e outstandi	ng bills of 23	patients am	ounting to (	GH¢9,629.	67 as part
6. The bills of six (6) patients an	nounting to	GH¢2,860.2	6 were waive	ed-off		
1 Account clerks and records	are monitor	ed daily to a	BINC Isure financi	al complian	re and ea	rvice
requests done for insured cli	ents.					IVICE
_		4&E SUB-BI -	ŴĊ			
	DIAG	NOSTICS SU	JB-BMC			
		-				
	MATERN	AL HEALTH	SUB-BMC			
	CHILD	- HEALTH S	UB-BMC			
	INTERNA	- L MEDICINE	E SUB-BMC			
		-				
1 Instituted Carvies improve	SUF	RGICAL SUE	B-BMC	ocirc and re	novotiona	ongoing
1. Instituted Service Improve     2. Payment of deposits by n	on-Insured	(SIL) to neip	carry out rep	bairs and re	enovations	ongoing
	D	EENT SUB-	ВМС			
		-				
	PUBLIC	C HEALTH S	SUB-BMC			
	PHARMA	- ACEUTICAL	SERVICES			
		-				
	REHAB	ILITATION S	SERVICES			
OBJECTIVE 4: IMPROVE HE	ALTH RES	BEARCH, TI	EACHING A	ND EXCE		LEARNING
4.1 Improve on Research:						
	HOSPITAL	WIDE LEVEI	L – OUTPUT	ſS		1
	A	ctual Perfor	mance Trer	nd	2019	Remarks /
					larget	% Difference between 2019 and
	0045	00/5				2018
Output	2016	2017	2018	2019		

2019 ANNUAL	OUTCOME AND OUTPUT PERFORMANCE	

i.	Operational research	1	2	3	6		
	conducted	4		4.4	40		
II.	researches conducted	1	2	14	13		
iii.	Number of researches	-	-	11	10		
	published						
1.	The "ABSTRACTS / PROC	EEDING: 1	ST CCTH SC	IENTIFIC R	ESEARCH	CONFERE	NCE
	PAPER" has been in the Pu	blished by	the Postgrad	duate Journa	al of Ghana	(PMJG) V	ol.8 N0. 2.
	The Publication is available	online and	can be acce	essed throug	h the colleg	e website	using the
	tollowing link maps.//gcps.e	euu.yn/jou	inal-cuirein	-volume/			
NB	Out of the nine (9) abstracts	submitted	to the PMJ	G following	the success	ful organiz	zation of the
CC	TH Maiden Scientific Researc	ch Confere	nce on the 1	3 <sup>th</sup> of Nover	mber 2018,	six (6) we	re accepted
and	l published in PMJG in Septer	nber 2019.	These are;				-
	Evaluation Study: Effectiv	eness of th	e E-Health F	Project Imple	mentation a	at Cape Co	bast
	Asare D. Ofori PG. Mense	a, Anu its ir ah-Acheam	npact on Qua	ality nealth v edonu K Kr	orantena F	Navedu K	F Blankson
	S. Tieku AS. Turkson TJ		polig I, Akp		Janteng ∟,	Ngycuu N	L, Diarikson
	-,						
	• A 6-Year Analysis of Fata	I Gunshot I	njuries in Th	e Central Re	egion of Gha	ana A	kakpo PK,
	Awlavi K, Agyarko-Wiredu	ı F; Derkyi-	Kwarteng L				
	Evaluation of Currical Ou			ation at Can		a ala in ar I I a	
	Evaluation of Surgical Ou	tcome of C	ataract Oper	ation at Cap	e Coast Te	aching Ho	spital
	Esuman-Gwira P						
	Perception on Prophylact	c Mastecto	my Among N	Nurses			
	Nketia E						
				<i>·</i> : · •	о <i>і</i> т		
	<ul> <li>Patterns, Indication and C Eour-Vear Retrospective</li> </ul>	Study	LIMD Amput	ation in Cap	e Coast Tea	aching Hos	spital; A
	Hagan R1 Kadzie I1 Rahman G2 Morna M2						
	<ul> <li>A Failed Bilateral Tubal Ligation with A Successful Medical Management of a Left Tubal</li> </ul>						ubal
	Pregnancy: A Case Repo	rt					
0	Agbeno EK1, Boateng A	S2, Kwakye	e A2	fananaa ay k			
2.	Mol and CCTH Board on	owing the i	research con	iterence sub	mitted to;		
3	FRC Committee re-constitute	d in Februa	ary 2019 and	SION MAKING			
0.	a. 4 ERC meetings Held						
	b. No. of Researches Appro	ved = 80					
	c. No. of Research Applicati	ons receive	ed in 2019 =	101			
4.	Research Policy developed –	Awaiting B	oard's Appro	oval.			
	K&D Unit created but Cap	acity yet to	be built at t	he R&D Unit			
1	Collaborated with a team of u	AIIENI DI	EPARIMEN	C to condu	ct a study o		Disease
1.	and Meibomian Gland Dysfu	nction in A	Clinical Sam	ble of Type	2 Diabetes	Patients in	Ghana"
2.	Also collaborated with a PhD	student to	conduct a s	tudy on "Per	ception of C	Quality of L	ife Among
	Persons with Diabetes in Thi	ee Selecte	d Hospitals i	n The Centr	al Region		J
			A&E SUB-BI	МС			
1			-				

2019 ANNU	AL OUTCO	ME AND OU	JTPUT PER	FORMANC	E		
	DIAGI		IB-BMC				
<ol> <li>The laboratory department as research.</li> </ol>	sisted/supp	orted KCCR	, NOGUCHI	and studer	nts in cond	ucting	
<ul> <li>Pathology department publis</li> <li>A 6-Year Analysis of the second /li></ul>	shed one pa Fatal Gunst	iper; not Injuries in	The Centra	l Region of	Ghana		
<ol> <li>Radiology department publish review</li> </ol>	ned five (5)	research pap	pers whiles t	hree article	s are unde	er peer	
	MATERN	AL HEALTH	SUB-BMC				
<ol> <li>1. 1 Abstracts published         <ul> <li>A Failed Bilateral Tub Pregnancy: A Case F Obstetrics and Gyna of Obstetrics and Gyna</li> </ul> </li> </ol>	<ol> <li>1 Abstracts published         <ul> <li>A Failed Bilateral Tubal Ligation with A Successful Medical Management Of A Left Tubal Pregnancy: A Case Report Agbeno EK1, Boateng AS2, Kwakye A2 1Department of Obstetrics and Gynaecology, University of Cape Coast, Cape Coast, Ghana; 2Department of Obstetrics and Gynaecology, Cape Coast Teaching hospital, Cape Coast, Ghana.</li> </ul> </li> </ol>						
	CHILD	HEALTH S	JB-BMC				
1. Published four collaborative	researches	;					
<ul> <li>Oppong SA, Bakari A, Be CA. (2019) Incidence, car cross-sectional study. BJ</li> </ul>	II AJ, Bocka uses and co OG 2019; 1	arie Y, Adu J prrelates of m 26:755–762.	A, Turpin CA aternal near	, Obed SA -miss mort	, Adanu Rl bidity: a mu	M, Moyer Ilti-centre	
<ul> <li>Bakari A, Bell AJ, Oppony Adanu RM and Moyer CA observational, multi-center <u>https://doi.org/10.1186/s1</u></li> <li>Hayfron-Benjamin A, Ang Yeboah, D. (2019) Psych</li> </ul>	g SA, Bocka (2019) Ne er study. BM <u>2887-019-1</u> ela AD, Err osocial Ass	arie Y, Wobil onatal near-r IC Pediatrics 883-y nestina A, Bo essment of (	P, Plange-R nisses in Gh (2019) 19:5 ckarie Y, Ba Shanaian Ad	hule G, Go ana: a pro 09. idoo I, Ayis olescents l	ika BQ, En spective, i Addo S, a iving with I	igmann CM, and Obiri HV using	
<ul> <li>Bakari A, Bell AJ, Oppong SA, Bockarie Y, Wobil P, Plange-Rhule G, Goka BQ, Engmann CM, Adanu RM and Moyer CA (2019) Neonatal near-misses in Ghana: a prospective, observational, multi-center study. BMC Pediatrics (2019) 19:509.</li> </ul>							
	INTERNA		SUB-BMC				
		-					
1. A paper was published or	n trauma ca <b>Di</b>	SURGICAL S ses seen ov EENT SUB-E	SUB-BMC er the past fir BMC	ve years (2	014-2019)	at CCTH	
		-					
	PUBLI	- HEALIHS	OR-RIVIC				
	PHARMA	CEUTICAL	SERVICES				
4.2 Improve on Teaching and	earning:	-					
	HOS	PITALWIDE	LEVEL				
	A	ctual Perfor	mance Trer	nd	2019 Target	Remarks / % Diff.	
Output	2016 Annual	2017 Annual	2018 Annual	2019 Annual			

#### 2019 ANNUAL OUTCOME AND OUTPUT PERFORMANCE

i. Resident	pass rate	-	-	90%	100%		
ii. Number	enrolled in	-	-	53	48		
postgrad	uate colleges						
1. Teleconferen	cing materials su	ch as proje	ector procure	d and instal	led at the B	oardroom	and Lecture
Hall	-		-				
2. Foreign Tra	inee program exp	pansion on-	going to cap	ture more a	reas		
3. Internship tr	aining for 10 M.F	hil. Clinica	Health Psyc	hology stud	lents from th	e Univers	ity of Cape
Coast	U			0,			
4. Sponsored	staff training, e.g.	one A&E ı	nurse in non-	operative fra	acture MGT		
5. Sustained a	ccreditation for s	urgical resi	dency trainin	q			
6. Sustained a	ccreditation for C	Destetrics a	nd Gynaecol	ogical Resid	dency trainir	ng	
7. Received gr	oup accreditation	n for Family	Medicine (C	luster of Ho	spitals)	0	
8. Received P	artial Accreditatio	n in Radiol	ogv & Paedi	CS			
9. In Partnersh	nip with German I	Heart Institu	ute for the tra	ining of stat	ff on echoca	rdiography	v
10. Trained 51	staff on sign lang			g er eter		<u>9</u>	/
11 Fellowship t	raining in Glauco	ma at Nen	al by one of t	he ophthaln	nologists		
12 Onsite train	ng on sterilization	n Prenarat	ion of packs	and instrum	ients was o	roanized f	or
Treatment F	Room Delivery S	uite FTAT	and A&F			iganizoa i	01
13 A training of	anized for select	cted staff or	n waste man	adement			
14 Trained staf	f on Basic I Iltras	ound Evac	ruation of Lite	agement	er dystocia	manadem	ent
Triaging etc	for Maternal He	alth Staff			iel dystocia	managem	ont,
15 Commence	d residency traini	na in Mater	rnal Health a	t the facility	(six residen	ts currently	v enrolled
and outside	CCTH three (3)	Training of	residents or	external ro	tation from	nther instit	utions three
(3)		rianing of					
16. 2 purses sent for training in pop-operative fracture management whiles 2 purses sponsored for							
specializatio	on at the Acciden	t and Emer	aency sub-B	MC.		1303 Sport	30100 101
	d the following a	t the Accide	ant and Emp	raency Den	artmont		
	irway manademe	nt training		rgency Dep	artificiti		
	ardionulmonary	and Toom I	Dynamics we	orkehon for 6	S3 staffs whi	ich is accr	odited for
			Dynamics we		JJ Stalls Will		
10	ΟΙΙΤΡ		FPARTMEN		R-RMC		
	0011		-	(0.2)00			
			A&E SUB-BI	MC			
1 Organised t	raining on LHIMS	done on 6	<sup>th</sup> Feb 2019	with 15 staff	and 27 staf	f in attend	ance
respectively			1002010				
2 Refresher T	riage training (SA	ATS) condu	icted for staff	:			
3 START	and Jump START	Triaging v	vorkshop org	anised whic	h saw 32 st	aff trained	
4 Airway man	agement training	organized	in May 2019		11 301 02 30		
5 Cardiopulm	agement training	and Team	Dynamics w	orkshon ora	anized in No	wombor a	accredited
for MDC wit	h 63 narticinante		Dynamics w				
6 27 clinical m	noo participanto.	•					
7 Continuous	teetings neid	dance of b	ouso officars	through om	orgonev ca	o and eve	tome is on-
	teaching and gui	uance of n		unough em	lergency car	e and sys	
8 38 foreign n	adical/nursing of	tudante and	1 16 from side		as takan the	ough Ema	
D. So lutelyn n	iculcal/nursing si						rgency
1\0(a(10115		סאוס					
1 Staff at the	laboratory banaf	itted from t	raining progr				Choloro
	labulation & Plood S	afoty oto )	raining progr	annies (QN		ana, ⊓rv, v	STIULETA,
2 Thoroward	rogular laborata	arely, elu.).	o procontati	one and acc	tinuous prof	local on all o	ducation at
∠. There were	regular laboralo	ny meeting	s, presentatio	JIS and CON	anuous proi	essional e	
	tory department.	did procent	ationa an an	ootod topica	in other de	nortmonto	and words
5. The labora	iory department (	uiu present	auons on sei	ected topics	s in other de	pariments	and wards

2019 ANNU	JAL OUTCO	OME AND C		FORMANC	E	
4. Facilitation of seminars/wo	rkshops by	laboratory s	taff.			
5. One radiologist attended A	GM	•				
6. The blood bank unit organi	sed training	workshop f	or staff			
	MATERN	AL HEALT	H SUB-BMC			
1. Nine (9) residents currently CCTH	enrolled in	residency ti	raining; six (6	6) in CCTH a	and three (	(3) outside
2. Training of Medical Studen	ts and othe	r Allied Heal	th Students			
3. Training of residents on ex	ternal rotati	on from othe	er institutions	three (3)		
		<u>DHEALTH S</u>	SUB-BMC	· <b>-</b> · · ·		
1. Paediatric echocardiograp	hic training	done by a C	Serman Hear	t leam led	by Prof. Ya	ankah
1 Four out of five condidate	IN I ERNA		<u>IE SUB-BIVIC</u>			
1. Four out of five candidate	es passed t	neir GCPS/		ersnip exar	ns	
1 Maakly refreeher presentatio	SUI	ting room to	B-BIMC	well as othe		
related topics were organised	d for all the	ang room le	chiliques as v		i nursing a	and medical
2 Training on bernia mesh one	ration 58 n	atients oper	ated on 19 r	nales and 9	females	
	<u>מוטוו, טס ף</u> <b>ת</b>				Temales	
1 Fellowship training in Glauco	ma at Nepa	al by one of t	the ophthalm	ologists		
2. 39 students (2017- 5 student	s. 2018-13	students, 20	)19 students	33) Medica	l students	and
Rotational Nurses hosted for	their progra	ams and rota	ations respec	tively. thus	generating	nterest in
DEENT specialist training.	inen pregi			,	90	<i></i>
	PUBLI	C HEALTH	SUB-BMC			
		-				
	PHARM	ACEUTICA	L SERVICE			
1. Organize training Worksho	p for all Pre	ceptors				
	REHAL	BILITATION	SERVICE			
1. Provided Clinical Psycholo	gical trainin	g to 8 M.Phi	I Clinical Hea	alth Psychol	ogy stude	nts from the
University of Cape Coast.			<del></del>			
2. Weekly tutorials on dietary	manageme	ents of condi	tions and bes	st practices	by the die	tand
nutrition unit	l - ' (0)l				_	
3. Physiotherapy unit organiz	<u>60 SIX (6) CI</u> fiftaan (15)	inical trainin	g on treatme	nt modalitie	S	
4. Physiotherapy unit trained	inteen (15)	siudenis				
OBJECTIVE 5: INTENSIEV SUE	PORT TO	THELOWER			SERVICE	
POINTS						
HOS	PITALWID	E LEVEL A	CTIVITY OU	TPUTS		
	A	Actual Perfo	rmance Tre	nd	2019	Remarks /
					Target	% Diff.
Output	2016	2017	2018	2019		
	Annual	Annual	Annual	Annual		
i. Proportion of planned	-	100%	150%	50%		
specialist outreach						
support to facilities						
carried out			4000	4000/		
II. Outreach visits carried	-	-	100%	100%		
OUT			47	474		
III. I OTAL NUMBER OF	-	-	17	1/4		
iv Total number of	-	-	17	174		
outreaches planned						

2019 ANNUAL OUTCO	OME AND OU	JTPUT PER	FORMANC	E	
v. Number of Beneficiaries - recorded	-	1,062	13,873		1206%
1. Outreach support to peripheral institut	tions				
a. Total outreaches carried out:					
<ul> <li>✓ Outreaches (commun</li> </ul>	ities/churche	s)			
<ul> <li>Total Communication</li> </ul>	hity/ Church =	= 168			
• Number of Pe	ople = 24,355	5			
✓ Outreaches	1.00	7			
	ases = 1,30	/			
	es done – 86				
<ul> <li>Number of ce</li> </ul>	entres = 4 (Ei	uropean Hos	spital. Tako	radi	
✓ Surgical Outreaches	to Communiti	es			
<ul> <li>Number of bei</li> </ul>	neficiaries = 4	156			
<ul> <li>Number of cer</li> </ul>	ntres = 16				
2. There's an on-going collaboration bet	ween CCTH	& Effia Nkwa	anta Hospit	al to train r	urses for
their newly established dialysis unit					
3. Brought on board other private health	facilities i.e.	PPAG, DIS	clinic in the	processing	g of
nealthcare waste		0 0 program			
4. Child Health Mehtorship support to G     5. Intensified Outreach programmes to r	rovide specie	s & program		nitios:	
Himalayan Cataract Project – A	IISA non-dov	ernmental -	_ More than	10.000 nc	arsons
screened for cataract in about 59	communities	& Restore	1 134 sights	s free of ch	arde
Operation Smile, Ghana – 29 Cla	eft Lip & Pala	te Repairs	r, ro roigina		aigo
	<b>-</b>	· · · · ·			
University of UTAH –Complicate	d Ear, Nose a	& Throat cas	ses were ide	entified wit	hin the poor
rural communities and surgeries p	erformed in t	he hospital			
OUT PATIENT D	EPARTMEN	<u>T (OPD) SU</u>	B-BMC		
1. Home visits to Diabetes Mellitus clients of	conducted (23	3 clients visi	ted).		_
2. OPD service brochure updated and circu	liated to perip	neral faciliti		ate referral	S
DIAGNOST	ICS SERVIC	ES SUB-BI	nitoring lob	orotory cor	vices to all
ART (V/L & FID) centre's in Central Regi	on as well as	GeneXnert	and TR Cu	Iture & DS	r
2 Met blood needs of the bospital over the	neriod and n	artially prov	ided blood i	requirement	ts of other
facilities in the region.				oquironioi	
MATERN	IAL HEALTH	SUB-BMC			
1. Continuous support to lower facilities or	n phone.				
CHILD	HEALTH S	ЈВ-ВМС			
1. Feedback sent to referral sites					
2. GHS mentorship and supervision					
<ul> <li>2 referral sites visited – Saltp</li> </ul>	ond and UCC	Hospitals			
Wrap up of GHS fixed award     USAID	new-born pro	ject suppor	ted by Syste	ems for He	alth,
INTERNA	L MEDICINE	SUB-BMC			
1. The dialysis unit facilitated the training dialysis unit	of nurses at	Effia Nkwan	ta Hospital	for their es	tablished
SUF	RGICAL SUB	-ВМС			
	-				
	EENT SUB-E	BMC			
1. Conducted 159 and 8 outreaches to co	ommunities a	nd Schools	respectively	1	
PUBLI	C HEALTH S	UB-BMC			

2019 ANNL	JAL OUTCO	OME AND O		RFORMANC	E	
1 Conducted twolve (12) com		achaa				
1. Conducted twelve (12) com	PHARMA	ACFUTICAI	SERVICES	•		
		-				
	REH	ABILITATIC	N SERVICE	S		
1. The diet and nutrition ur	it conducte	d eight (8) m	najor outread	h services w	vith 808 pe	ersons seen
<b>OBJECTIVE 6: IMPROVE INFR</b>	RASTRUCT	URE AND I		BASE FO	r the de	LIVERY OF
QUALITY SERVICE						
HOS		E LEVEL A		TPUTS	0040	
	A A	Actual Perfo	rmance Tre	nd	2019 Target	Remarks / % Diff
Output	2016	2017	2018	2019	Target	70 Dill.
	Annual	Annual	Annual	Annual		
i. Equipment Down time (proxy: CT SCAN)	82.94%	7.69%	1.92%	0%		
ii. PPM (Planned	-	60%	62%	80%		
Preventive						
Maintenance) Output						
achieved						
iii. Equipment Utilisation (Proxy: CT SCAN)	25.1%	34.8%	74.2%	83.1%		
1. 250 KV slightly used gen	erator recei	ved from Ca	al Bank in Ma	arch		
2. Renovated the Lecture F	all and Cor	ference Fac	ility (Air-con	ditioner fixe	d, painting	done and
projectors mounted in Ma	arch)				5,155	
3. Process initiated to have	a fibre opti	c internet co	nnectivity fro	m Vodapho	ne networ	k
4. Ghana First Sanitation P	roject Buildi	ing at 60% c	ompletion po	oint		
<ol><li>Renovation on-going at t</li></ol>	he kitchen (	Work on the	Kitchen sev	vage systen	n complete	ed)
6. One (1) double cabin pic	k-up procur	ed through t	he MoH Hire	e-purchase s	scheme	
7. Two new otoscopes have	e been purc	hased for th	e ENT Servi	ces		
8. Acquired four (4) ophthal	moscope a	nd Retinosc	opes for the	Eye Service	es D	
9. Received one (1) Pick up	to augmer	t the fleet a	nd Motor Bik	e from UND	Р	
10. Deployed computers to t	ne nospital	s primary ca	re facility (po		the Oheter	tu: a
Emorgonov Block Mortu	ISION OF NOS	spital's Loca	I Area Netwo	lding Mothe	ine Obsie	LIIC & Child
Health Sub-BMC offices	Polvelinie a	and other se	rvice noints i	in the hosnit	al	a crilia
12. Mounted five (5) new dig	ital screens	to display h	ealth related	l educative v	/ideos and	messages
to clients						gee
13. CT Scan building renova	ted.					
14. Renovation works carried	d out at the	waste stabil	ization pond			
15. The CSSD Unit had beer	n provided v	vith a compu	uter and is no	ow accessin	g the LHIN	/IS.
16. Air condition at the CSS	to reduce	heat intensi	ty			
17. Drainage system rehabili	tated at the	kitchen				
18. Acquisition of two new H	aematology	, Urine Chei	mistry and E	LISA auto a	nalysers	
19. A special tricycle receive	d from UNL	P for waste	managemer	nt activities		
OUT	PAILENI L		the events of	B-BIVIC	Hol Maraa	omort
A number of equipment and		y areas with	to augment	the evicting	ones	jement.
		Δ&F CIIP_P		uie existilig	01165.	
1 New air conditioning and do	or fixed in r	esuscitation	nrocedure r	nom		
2. Donations received 3 pulse	oximeters	USG machi	ne	0011		
3. ECG machine procured and	679 FCGs	done in 201	9.			
4. 5 Oxygen ports fixed and hu	imidifier bou	ught				

2019 ANNUAL OUTCOME AND OUTPUT PERFORMANCE
5. Ten 10 new patient chairs (SIL) acquired
6. HDU resuscitation cupboard re-appropriated
7. Some airway equipment purchased with SIL (NPA, OPA, laryngoscope accessories)
DIAGNOSTICS SUB-BMC
1. Biometric verification entry at the laboratory was repaired.
2. Two (2) class II biosafety cabinets, GeneXpert, MGIT at the laboratory were serviced for the by
NTP
3. Three (3) Trolleys at the pathology unit repaired
4. Two (2) Air-conditioners fixed; one (1) at the pathologist's office and one (1) at the mortuary clerk's office.
5. Faulty Toilet institution at the pathology unit fixed
6. Drainage problem fixed at the pathology unit
7. Dry lines provided at the pathology unit
8 Honey Comb (Net) fixed at the pathology unit
9 Rest room for transitional managers at the pathology department created
10 Faulty ridge at the pathology unit repaired
11. Contract awarded to expand the Cold room of the mortuary
12. Main X-ray optrance door fixed
12. Main A-ray entrance door liked.
MATERNAL HEALTH SOB-DINC
1. Osed service improvement Levy (SL) to.
<ul> <li>Acquire solicaids 6, pulse oximeters 7, nebulizers 1, BP apparatus 16, memometers 20, table top autoclaves 2, examination lamps 3, fridge for medicine 2, bunk bed mattresses 4 and other equipment/instruments.</li> </ul>
Received 1 printer and supplies
Carried out maintenance works with support of Technical Services
CHILD HEALTH SUB-BMC
1. Received the following equipment;
• 2 incubators
2 phototherapy machines
1 cardiac monitor
Pulse oximeters and 1 suction machine
INTERNAL MEDICINE SUB-BMC
1. Piped Oxygen secured for the female medical ward
SURGICAL SUB-BMC
<ol> <li>Constructed 72 wooden cabinets (lockers) each for male and female changing rooms at the surgical suite.</li> </ol>
2. Received 2 medicine fridges from the Pharmacy Unit for male and female surgical wards
3. Covered 24 torn mattresses with mackintosh
4. Fixed C-arm power source at theatre 2
5. Purchased 100 pieces of 30 watts' energy saving bulbs
6. Repainted waiting areas and balconies of the wards and surgical suite
<ol> <li>Purchased twelve (12) high density 5 inches' latex foam mattresses for male and female surgical wards.</li> </ol>
8. Purchased 3 UPS for the newly installed monitors at the recovery ward.
9. Fixed sockets at the bedside of male and female surgical wards for suction machines and
other electrical equipment
10. Installed 2 new 2.5 horse power air conditioners at the recovery ward.
11. Purchased 100 pieces of 30 watts energy saving bulbs
12. Received thirty (30) plastic chairs from UCC school of Medical Sciences
13 Purchased 4 oxygen flow metres for male and female surgical wards

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2019 ANNUAL OUTCOME AND OUTPUT PERFORMANCE
14. Purchased 2 pulse oximeters, one for each ward, male and female surgical wards.
DENTAL, EYE, EAR, NOSE AND THROAT SUB-BMC
<ol> <li>Donations received from HCP and Utah Team includes;</li> </ol>
<ul> <li>2 Mobile operating microscope, autorefractor, 6 new cataract sets, Keratometer, 2A Scanners, drugs, step down, Flexible laryngoscopy, 2 Monitors, 2 Camera heads, head light, Audiometer, Tympanoplasty set, Suction machine and other consumables for Eye surgery</li> </ul>
2. Renovation of Dental Unit – General Floor Tiling, Fixing of New Air conditioners, Painting etc.
<ol><li>Acquired two otoscopes, four opthamoscope and one retinoscope</li></ol>
<ol><li>Printer for the visual field analyser repaired and functional</li></ol>

## **SECTION 2**

### **CHAPTER TWO**

### **HUMAN RESOURCE**

#### 2.1: INTRODUCTION

As part of the approach to improve on employee's performance, the institution developed mechanisms to acquire, maintain and motivate employees in order to achieve the intended goals. Having the right mix of cadres of staff helps in rendering quality of health care at the institution.

#### 2.2: STAFF STRENGTH ANALYSIS

The institution has progressively recorded an improvement in its staff strength over the past five years. In 2019, the number of staff increased by 22.8% (from 1,325 in 2018 to 1,627 in 2019). The number of doctors increased by 20.4% in 2019 (from 221 in 2018 to 266 in 2019). However, the OPD cases seen per doctor dropped from 1:1163 in 2018 to 1:1098 in 2019. There was also an increase of 35.8% in the number of specialists [(specialist + senior specialist + consultants) (from 53 in 2018 to 72 in 2019)] resulting in an improvement in the OPD cases seen per specialist from 1:1418 in 2018 to 1:1255 in 2019. Despite an increase in the number of specialists, there are still specific gaps that need to be filled. For instance, the doctor to nurse and midwives' ratio went up from 1:4 in 2018 to 1:5 in 2019. The consultant to resident doctor ratio improved from 1:7 in 2018 to 1:4 in 2019. The surgery to surgeon ratio dropped from 133:1 in 2018 to 127:1 in 2019.

In 2019, the number of professional nurses in the hospital went up by 25.2% (from 449 in 2018 to 560 in 2019) whilst the midwives increased by 44.8% (from 105 in 2018 to 152 in 2019). In the same light, the nurse midwives' admission ratio dropped from 1:20 in 2018 to 1:16 in 2019. Further, the midwives to delivery ratio (using total midwives at the institution) decreased from 1:30 to 1:20 whilst the midwives to delivery ratio (using total midwives at the delivery suite only) went down from 1:77 in 2018 to 1:75 in 2019.

There was a significant increase in the total number of pharmacists to 18 in 2019 as compared to 9 in 2018. The doctor to pharmacist ratio improved from 15:1 in 2018 to 9:1 in 2019 and although the prescription to pharmacist ratio improved from 16,097:1 in 2018 to 8,288:1 in 2019, the workload on the pharmacist remains unacceptably high. More pharmacists are still required to improve quality of service. Despite the general improvement in productivity, critical analysis needs to be done by the institution on staff workload, equity in staff distribution and training impact assessment of the various departments. Figure 2.2.1 as well as tables 2.2.1 to 2.2.4 below provides detailed analysis on performance.



Figure 2.2. 1: Five-Year Trend of Total Staff Strength from 2015 To 2019

### Table 2.2. 1: Staff Strength Analysis

CADRE	2015	2016	2017	2018	2019	REMARKS
Doctors	116	178	186	221	266	20.4% incr
Radiology Technicians	3	3	5	8	7	decrease
Radiologist	-	1	2	3	3	
Radiographers	3	3	5	5	5	
General / Enrolled	317	535	554	546	647	18.5% incr
Nurses						
Midwives	31	100	106	105	252	44.8% incr
Pharmacist	8	9	9	9	18	100% incr
Pharmacist Tech	6	7	6	6	7	16.7% incr
Accountants & Finance	14	14	18	24	27	12.5% incr
Officers						
Laboratory & Lab Tech	15	16	18	20	18	10% decr
Health Services	5	4	8	8	7	12.5% decr
Administrators						
Optometrist	2	2	2	2	2	
Other GOG Pay Roll	176	221	317	363	314	13.5% decr
Staff						
CCTH Pay Roll Staff	96	116	91	105	61	51.4% decr
TOTAL STAFF	786	1,199	1320	1325	1627	22.8% incr
				(0.4% ↑)		

### Table 2.2. 2: Trend of Total Staff Available At CCTH

DIRECTORATE	CCTH EMPLOYED STAFF	NABCO	PERMANENT	UCC SM S	SECONDM ENT	TOTAL
Administration	26	49	228	0	5	308
Finance	0	11	31	0	1	43
Medical	22	2	331	33	4	392
Nursing	0	0	845	0	0	845
Pharmacy	13	0	26	0	0	39
Grand Total	61	62	1461	33	10	1627

 Table 2.2. 3: Number of Medical Doctors by Category

		NUMBER		
CATEGORY	2017	2018	2019	REMARKS
Consultants, Senior Specialist and Specialists	45 (*25 SMS)	53 (*31 SMS)	72 (*33 SMS)	35.8% incr
Medical Officers	69	29	33	13.8% incr
Residents	-	53	48	9.4% decr
House Officers	108	86	113	31.4% incr
TOTAL	222	221	266	20.4% incr

IADIE 2.2.4. NUIIIDEI UI SPECIAIISIS DY CALEQUIY	Table 2.2.	4: Numbe	r of Spec	ialists by	<sup>v</sup> Category
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SPECIALTY	NUMBER		REMARKS
	2018	2019	
Anaesthesia	1	1	-
Cardiology	1	1	-
Chemical Pathology	1	1	-
Child Health	3	7	133.3% incr
Clinical Microbiology	1	1	-
Community Medicine	1	1	-
Emergency Medicine	2	2	-
Endocrinology	1	1	-
ENT	2	2	-
Family Medicine	2	2	-
Haematology	2	2	-
Internal Medicine	3	6	100%
Maxillofacial	2	3	50%
Microbiology	1	1	-

SPECIALTY	NUMBER		REMARKS
	2018	2019	
Neurosurgery	1	1	-
O&G	10	13	30% incr
Ophthalmology	3	3	-
Orthopaedics	2	2	-
Pathology	2	2	-
Plastic Surgery	1	1	-
Radiology	3	3	-
Surgery	7	13	85.7% incr
Urology	1	2	100% incr
Grand Total	53	72	35.8% incr

#### 2.3. GAP ANALYSIS FOR DOCTORS

The hospital in 2019 recorded an increase of 22.8% in the total number of staff through recruitment and transfer – in. However, there are still gaps with specialty areas. Such as, emergency physicians, pharmacists, Radiation Oncologist, critical care nurses, etc. The number of doctors available in the institution in 2019 was 103 which falls short of the 312-minimum requirement as a Teaching hospital. To address some of the gaps, the hospital for instance approved the training of about 38 staff to improve the situation. In the same light, the nurses available are 724 compared to the 1144 required as a tertiary institution.

Allied health professionals play a critical role in any healthcare institution. However, the existing gaps among these categories of staff are substantial thereby increasing their workload. Table 2.3.1 to 2.3.4 below provides a detailed analysis of the human resource gaps at the institution.

CADRE	MINIMUM REQUIRED	AVAILABLE	UNDER TRAINING	GAP
Medical Officers	56	33	0	-23
Maxillofacial surgeon	5	3	0	-2
Specialist Community Oral Health /Dentist	6	0	0	-6
Specialist Orthodontist	2	0	1	-2
Specialist Restorative Dentistry	4	0	0	-4
Cardiologist	4	1	0	-3
Dermatologist	2	0	0	-2
Doctor Anaesthetist	27	1	2	-26
Emergency Medicine Physician	22	2	1	-20
Endocrinologist	2	1	0	-1
Family Physician	7	2	3	-5
Gastroenterologist	4	0	0	-4
Infectious Disease Specialist	4	0	0	-4
Nephrologist	3	0	0	-3
Neurosurgeon	2	1	1	-1

Table 2.3. 1: Gap Analysis for Doctors

CADRE	MINIMUM REQUIRED	AVAILABLE	UNDER TRAINING	GAP
Obstetrician & Gynaecologist	21	13	5	-8
Ophthalmologist	7	3	0	-4
Paediatric Endocrinologist	2	1	0	-1
Paediatric Nephrologist	2	0	0	-2
Paediatric Neurologist	2	0	0	-2
Paediatric Oncologist	2	0	0	-2
Paediatrician (General)	16	7	1	-9
Pathologist	6	3	3	-3
Physician Specialist (Medicine)	32	6	6	-26
Respiratory Physician	2	0	0	-2
Rheumatologist	2	0	0	-2
Specialist Haematology	5	3	0	-2
Specialist Microbiology	5	2	0	-3
Trauma & Orthopaedic Specialist	6	2	0	-4
Urologist	4	2	0	-2
General Surgeon	11	12	8	1
Paediatric Surgeon	8	0	0	-8
Clinical Medical Physicist	8	0	0	-8
ENT specialist	5	2	1	-3
Radiologist	7	3	2	-5
Radiation Oncologist	9	0	4	-9
TOTAL	312	103	38	-171

Table 2.3. 2: Staff Strength Analysis – Nurses

CADRE	NO. AVAILABLE		NO.	GAP
	2018	2019	REQUIRED	
Midwives	105	152 (44.8% incr)	175	-23
Community Health Nurse	9	10 (11.1% incr)	14	-4
Professional Nurses	449	562 (25.2% incr)	955	-393
Enrolled nurse	97	<b>85</b> (12.4% decr)	-	-
TOTAL	659	724 (9.9% incr)	1144	-420

### Table 2.3. 3: Gap Analysis for Allied Health Professionals

CADRE	MINIMUM REQUIRED	AVAILABLE	GAP
Physiotherapist	29	3	-26
Physiotherapy Assistant	12	8	-4
Radiographers/X-ray Technician	17	7	-10
Radiotherapist	6	0	-6
Biomedical Scientist	96	12	-84
Biostatistics Officer	11	1	-10
Technical Officer (Biostats/HI)	18	11	-7
TOTAL	189	42	-147

#### Table 2.3. 4: Gap Analysis for Pharmacists

CADRE	MINIMUM REQUIRED	AVAILABLE	GAP
Pharmacists (General)	57	18	-39
Pharmacy Specialist - Drug	7	0	-7
Information			
Pharmacy Specialist-	6	0	-6
Manufacturing			
Pharmacy Specialist – Radio	5	0	-5
Clinical Pharmacist	15	1	-14
Pharmacy Technician	38	7	-31
Total	128	26	102

#### 2.4. PROMOTIONS AND STAFF DEVELOPMENT

The institution organizes promotion interview twice yearly. In 2019, 367 staff's grades were changed. Out of that, 342 were promoted, 20 staff's grades were upgraded and 5 staff went through conversion. Despite the slight improvement of staff appraised from 37.7% in 2018 to 39% in 2019, appraisal of staff is still an issue at the institution which needs to be addressed. Also, a total of 50 staff were granted study leave in 2019. Among them were 28 nurses and 18 doctors. Detailed analysis in table 2.4.1 to 2.4.3 below.

#### Table 2.4. 1: Change of Grades in 2019

TYPE OF CHANGE	PHASE OF C	Grand Total	
	Phase 1 Phase 2		
Conversion	4	1	5
Promotion	312	30	342
Upgrading	13	7	20
Grand Total	329	38	367

Table	2.4.	2:	Study	Leave
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CADRE	STUDY LEAVE WITH PAY	STUDY WITHOUT PAY	SANDWICH
Nurses	28	1	14
Doctors	18	0	0
Other Staff	4	0	5
TOTAL	50	1	19

#### Table 2.4. 3: Staff Performance Appraisal as at 2019.

Directorate	Number Appraised	Number Expected	% Appraised
Administration	55	237	23.21
Finance	10	23	43.48
Medical	29	240	12.08
Nursing	383	703	54.48
Pharmacy	3	28	10.71
Total	480	1231	38.99

#### 2.5 STAFF TURNOVER

In spite of measures put in place by the hospital to manage the turn-over rate, it's still a challenge across board. The number of staff granted transfer-out of the institution in 2019 were 53 and out of that, 44 were from nursing division. Details provided in table 2.5.1 below.

Table 2.5.	1: Staff	Turnover in	2019
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CATEGORY OF STAFF	TYPE OF TRANSFER		GRAND TOTAL	
	IN	OUT		
Accountant	0	1	1	
Biomedical Scientist	0	1	1	
Biostatistics Assistant	1	0	1	
Enrolled Nurse	0	5	5	
Midwife	0	12	12	
Optometrist	0	1	1	
Professional Nurses	1	32	33	
Technical Assistant	0	1	1	
Grand Total	2	53	55	

#### 2.6: HUMAN RESOURCE WASTAGE

In 2019, a total of 17 cadres of staff exited the institution through compulsory retirement, resignation, death, etc. Out of that, 9 staff went on compulsory retirement and 4 staff also resigned. Table 2.6.1 provides analysis of staff wastage as at 2019 whilst table 2.6.2 demonstrates a five-year projection of Staff who would be going on compulsory retirement.

Table 2.6. 1: Wastage Type In 2019

Category	Type of Wastage					
	Compulsory Retirement	Death	Resignation	Vacation of Post	Voluntary Retirement	
Biostatistics Assistant	1	0	0	0	0	1
Enrolled Nurse	1	0	0	0	0	1
Health Service Administrator	0	0	1	0	0	1
Laundry Machine Operator	1	0	0	0	0	1
Medical Officer	0	0	2	0	0	2
Midwife	1	0	0	0	0	1
Professional Nurse	2	1	0	2	0	5
Public Health Officer	0	0	1	0	0	1
Security Guard	2	0	0	0	0	2
Sterilization Machine Operator	0	0	0	0	1	1
Telephonist	1					1
Grand Total	9	1	4	2	1	17

#### 2.7 IMPROVING TEACHING AND LEARNING

As a teaching hospital, we are mandated to promote teaching and learning by creating the needed opportunities and enabling environment in order to have a well-trained, skilled and motivated workforce to provide the needed tertiary health care services. This includes graduate, postgraduate training of mainly doctors and other health professionals as well as basic and post-basic health training programs.

#### 2.7.1 GENERAL TRAINING

- 1. Appointed Heads of Departments and lead Clinicians to intensify supervision for teaching and learning
- 2. Foreign Trainee program expansion on-going to capture more areas
- 3. Internship training for 10 M.Phil. Clinical Health Psychology students from the University of Cape Coast
- 4. Sponsored staff training, e.g. one A&E nurse in non-operative fracture MGT
- 5. In Partnership with German Heart Institute for the training of staff on echocardiography. Paediatric echocardiographic training done by a German Heart Team
- 6. Trained 51 staff on sign language
- 7. Trained 32 staff on S.T.A.R.T. and Jump START Triaging
- 8. Airway management training organized in May 2019.
- 9. Cardiopulmonary Workshop and Team Dynamics workshop organized in November, accredited for MDC with 63 participants.
- 10. Staff at the laboratory benefitted from training programmes (QMS, TB, Malaria, HIV, Cholera, LIS, Coagulation & Blood Safety, etc.).
- 11. Weekly refresher presentation/training done at all clinical sub-BMCs
- 12. Training on hernia mesh operation, 58 patients operated on, 49 males and 9 females

CADRE	STUDY LEAVE WITH PAY	STUDY WITHOUT PAY	SANDWICH
Nurses	28	1	14
Doctors	18	0	0
Other Staff	4	0	5
TOTAL	50	1	19

#### Table 2.7.1. 1 General Staff Training - Study Leaves Granted in 2019

#### 2.7.2 POSTGRADUATE TRAINING

- Sustained accreditation for Obstetrics and Gynaecology residency training at the facility. Nine (9) residents currently enrolled in residency training; six (6) in CCTH and three (3) outside CCTH
- 2. Sustained accreditation for surgical residency training
- 3. Received group accreditation for Family Medicine (Cluster of Hospitals)
- 4. Received Partial Accreditation in Radiology & Pediatrics postgraduate training
- 5. One ophthalmologist benefited from a Fellowship training in Glaucoma at Nepal
- 6. 14 Nursing staff are currently undergoing specialty training at the Ghana College of Midwifery and Nursing in the following areas;

- a. 7 nurses Paediatric associate programme
- b. 3 nurses NICU associate programme
- c. 1 nurse Emergency Nursing
- d. 1 nurse NICU membership
- e. 1 nurse Critical Care Nursing
- f. 1 nurse Midwifery

#### Table 2.7.2. 1 Doctors Under Training by Specialties

CADRE	DOCTORS UNDER SPECIALTY TRAINING
Specialist Orthodontist	1
Doctor Anaesthetist	2
Emergency Medicine Physician	1
Family Physician	3
Neurosurgeon	1
Obstetrician & Gynaecologist	5
Paediatrician (General)	1
Pathologist	3
Physician Specialist (Medicine)	6
General Surgeon	8
ENT specialist	1
Radiologist	2
Radiation Oncologist	4
TOTAL	38

Table 2.7.2. 2 Residency Training

Residency Training Under the THs KPIs	Act	ual Perfo	2019 Target	Remarks / % Diff.		
	2016 Annual	2017 Annual	2018 Annual	2019 Annual		
i. Resident pass rate	-	-	90%	100%		
ii. Number enrolled in postgraduate colleges	-	-	53	48		
iii. Consultant to resident doctor ratio	1:7	1:12	1:7	1:4	-	Decr.

## **CHAPTER THREE**

### **CLINICAL CARE SERVICES**

#### 3.1: INTRODUCTION

This chapter provides the general trend analysis of the clinical performance of the hospital, highlighting key clinical performance indicators from outpatient through to inpatient services as well as diagnostics service utilisation.

#### 3.2 OUT-PATIENT SERVICES UTILIZATION

OPD Sub-BMC provides general outpatient services including family medicine and rehabilitative services whilst hosting other specialized services provided by the Specialized Clinical Sub-BMCs.

The hospital in 2019, recorded a total of 168,056 OPD specialty services attendance. The DEENT department recorded the highest attendance, representing 21% followed by 20% attendance at the internal medicine department. Child health cases remained the least (8%) among the category of specialty services attended at the OPD despite the 1% improvement from 2018 (that's from 7% in 2018 to 8% in 2019). 12% of the cases were seen by the department of surgery whilst O&G recorded 14% of the total cases seen at the OPD. Figure 3.2.1 below demonstrates the utilization of OPD services by specialty.



Figure 3.2. 1:OPD Utilization by Specialties

The hospital since 2016 have recorded continuous increase in the total OPD attendance from 110,068 in 2016 to 168,056 in 2019 with an increase of 6.3% in 2019 compared to the 2018. Interestingly the new registrants decreased by 17.7% in 2019. Also, the clients

with insurance went up by 12% whilst the non-insured dropped by 21.1%. The cases referred into the institution equally went up by 3.6% (from 4,292 in 2018 to 4,447 in 2019). The cases seen per doctor improved slightly from 1:1163 in 2018 to 1:1098 in 2019 whereas, the OPD Cases seen per specialist improved from 1:1829 in 2016 to 1:1255 in 2019. Figure 3.2.2 and table 3.2.1 below shows the trend analysis.



Figure 3.2. 2: Trend in OPD Service Utilization

Table 3.2. 1: General OPD Clinic Attendance

INDICATORS	2016	2017	2018	2019	REMARKS
New OPD Registrants	-	39,404	28,361	23,334	17.7%
					decrease
OPD Attendance	110,068	117,854	158,164	168,056	6.3% increase
OPD cases seen per	1:1184	1:1030	1:1163	1:1098	
doctor					
OPD Cases seen per	1:1829	1:1849	1:1418	1:1255	
specialist					
Average Daily OPD Visit	-	323	433	461	6.4% increase
Insured Patients	101,957	109,280	130,557	146,227	12% increase
Non-Insured Patients	8,111	8,574	27,607	21,779	21.1%
					decrease
Referrals In	3,443	4386	4,292	4,447	3.6% increase
Referrals Out	-	-	-	146	-

The hospital recorded 5.58% increase in the General Medical clinic attendance (from 17,184 in 2018 to 18,142 in 2019). Out of the services provided under internal medicine in 2019, renal clinic services went up significantly by 50.2% whilst dermatology clinic recorded the most significant drop in attendance by 85.7% (from 315 in 2018 to 45 in 2019) due to a challenge in the institution getting a permanent dermatologist. In the same light, out of the surgical service attendance, Uro-surgical clinic recorded the highest

percentage increase by 49.2% (from 4102 in 2018 to 6119 in 2019). The Eye clinic also recorded a significant increase in attendance by 35.4% (from 8917 in 2018 to 12078 in 2019). Also, there was a 12.7% increase in the specialist paediatrics clinic attendance from 589 in 2018 to 664 in 2019). Table 3.2.2 below demonstrates a five-year trend in OPD clinic attendance.

CLINICS	2015	2016	2017	2018	2019	REMARKS
		IN	TERNAL M	EDICINE		
General Medical	16,617	16,232	21,060	17,184	18,142	5.58% incr
Dermatology	357	330	359	315	45	85.7% decr.
Asthma	297	511	787	1,036	1,005	3% decr.
Endocrinology	0	82	125	111	106	4.5% incr.
Haematology	0	223	298	431	437	1.4% incr
HIV CLINIC	5,895	5,377	6,068	-	4,913	-
TB CLINIC	35	42	39	131	361	175.6%
				(42 - CCTH	(31 CCTH	incr.
				Clients)	Clients)	-
Sickle Cell	135	454	650	567	423	25.4% decr
Gastroenterology	170	560	690	620	749	20.8% incr
Cardiology	240	1,590	2,153	2,104	2,583	22.8% incr
Diabetes	9,201	9,309	9,966	10,636	11,304	6.3%incr
Hepatitis B	446	940	1,059	1179	1,212	2.8% incr
Renal Clinic	-	389	849	888	1,334	50.2% incr
	r	SL	JRGICAL S	ERVICES	I	L
General Surgery	3,983	4,376	5,702	4234	3433	18.9%decr
Orthopaedic	1,913	2,223	2,347	2485	2311	7.0%decr
Uro-Surgery	2,208	2,843	3,275	4102	6119	49.2%incr
Neuro-Surgery	200	129	312	351	620	76.6%incr
Plastic Surgery	176	564	601	433	461	6.5%incr
Anaesthesia	378	943	868	782	894	14.3%incr
Colorectal	-	-	-	-	82	-
	DENTA	L, EYE AN	ID EAR, NC	SE & THROAT	(DEENT)	-
ENT	5,907	6,080	6,664	6230	8211	31.7 %incr
Eye	6,600	8,420	9,348	8917	12,078	35.4% incr
Dental &	4,165	4,294	5,112	4769	5204	9.1% incr
Maxillofacial						
		M	ATERNAL	HEALTH		
OBS.& GYNAE	20,322	15,536	17,547	16,564	17,068	3.04% incr
			CHILD HE	ALTH		<b></b>
General	7,690	7,810	8,180	7490	8,666	15.7% Incr.
Paediatrics	-			455		
NICU Follow-Up	-	-	-	155	206	32.9% incr
Paediatric Specialist Clinic						
Paedics Asthma	-	-	-	87	78	10.3% incr
Paedics Neuro	-	-	-	168	137	18.5% decr
Paedics Renal	-	-	-	99	97	2% decr
Paedics Cardio	-	-	-	30	21	30% decr
Paediatrics -	-	-	-	205	331	61.5% incr
Sickle Cell clinic						

Table 3.2. 2: Trend in OPD Utilization by clinic from 2015 to 2019

CLINICS	2015	2016	2017	2018	2019	REMARKS
Total	-	-	-	589	664	12.7%
Paediatric						incr.
Specialist						
Clinic						
Attendance =						
			<b>REHABILI</b>			
Diet Clinic	1,743	1,417	1,916	1265	1224	3.2% Decr
Clinical	150	163	261	301	592	96.7% Incr.
Psychology						
Physiotherapy	-	-	9,228	9,579	1,0090	5.3% incr
Speech Therapy	-	-	-	24	68	183.3% Incr
			OTHER SE	RVICES		
Polyclinic	-	-	-	-	348	Clinic
						started in
						December
						2019
Minor Procedures	8,706	9,932	9,218	7464	9280	24% incr
(Treatment						
Room)						
Weekend &	-	362	362	355	358	0.85% incr
Holiday Clinic						

The hospital in 2018, encountered a challenge in generating HIV case report. However, in 2019 the total HIV cases recorded was 4913, out of that, 136 were new cases and 4777 were follow-ups with total of 7 deaths. In 2019, out of the total 1303 HIV clients receiving ARV treatment, 1227 were adults whilst 76 were kids.

Table below provides trend analysis on the utilization of HIV/TB Services 2015-2019 at the institution.

							1			1			1		
INDICATOR		2015			2016			2017			2018			2019	
	Adult	Kids	Total	Adult	Kids	Total	Adult	Kids	Total	Adult	Kids	Total	Adult	Kids	Total
TOTAL HIV CASES SEEN	-	-	5895	-	-	5377	-	-	6068		vailable	-	-	-	4913
NEW CASES	264	34	298	217	27	244	223	30	253		t a		116	20	136
CLINICAL FOLLOW UPS	5572	323	5,895	5,015	362	5,377	5657	411	6068		lic is no E-track		4465	312	4777
TOTAL DEATH	13	0	13	7	0	7	10	1	11		he Clin		6	1	7
NO.SCREENED FOR TB	1,089	78	1,167	4,439	283	4,722	1146	91	1238	e HIL	'nt of t		1081	74	1155
NO.DIAGNOSE D TB	10	8	18	14	4	18	18	12	30	om th	,		7	-	7
NO.ON TB TREATMENT	10	8	18	14	4	18	9	11	20	bort f			7	-	7
NO. OF HIV CASES RECEIVING ARV	806	43	849	837	54	891	987	66	1053	2018 re due to ti			1227	76	1303

 Table 3.2. 3: Utilization of HIV/TB Services 2015-2019

#### 3.3 TOP TEN OPD MORBIDITIES - 2019

Hypertension (12.0%) and Diabetes (7.9%) remained the leading causes of OPD attendance followed by acute eye infection (1.7%) and upper respiratory tract infection (1.7%). From the Illustration in figure 3.3.1 below, prostate cancer (0.9%) which is also increasing at an alarming rate remained at the 8<sup>th</sup> position out of the top 10 OPD morbidities. Cardiac disease, urethral discharge and septicaemia all fell within the least top 20 cases recorded in 2019. Details provided in figure 3.3.1 below.





#### **3.4 IN-PATIENT SERVICE UTILIZATION**

The trend in admissions fluctuated over a four-year period (from 2016 to 2019). However, there was a 2.1% increase over the previous year (from 10,865 in 2018 to 11,088 in 2019). In 2019, 36.4% of the hospital's admissions were recorded at the maternal health department whilst 26.2% were from child health. The admission at the surgical department was about 19% whilst internal medicine recorded about 18%. In the same light, percentage of neonatal admissions due to external referrals increased by 1% (from 26.2% in 2018 to 27.2% in 2019) whilst the percentage of maternal admissions due to external referrals decreased by 14.2% (from 41.4% in 2018 to 27.2% in 2019). Also, the total percentage of patients admitted due to external referrals went up by 14.6% (from 25.8% in 2018 to 40.4% in 2019). Furthermore, the nurse and midwife admission ratio improved from 1:20 in 2018 to 1:16 in 2019.

The bed capacity of the hospital remained at 400 in 2019. The hospital also recorded an increase in the percentage bed occupancy from 51% in 2018 to 55% in 2019. The average length increased from 5 days to 6 days whilst the average length of stay at the emergency

ward improved from 4 days to 3 days. The total surgeries performed in the hospital went up by 29.1% (from 3728 in 2018 to 4815 in 2019) whilst the surgery to surgeon ratio improved from 133:1 in 2018 to 127:1 in 2019. The total deliveries performed in the hospital reduced by 4.2% (from 3160 in 2018 to 3027 in 2019). In the same light, the delivery to midwife ratio at the institution decreased from 30:1 in 2018 to 20:1 in 2019. The caesarean section rate also dropped from 46.8% in 2018 to 41.2% in 2019. Detailed comparative trend analysis is illustrated in figures 3.4.1 to 3.4.4 and tables 3.4.1 to 3.4.2 below.



Figure 3.4. 1: Percentage of Admission According to Specialties in 2019



Figure 3.4. 2: Admission Trend of Clinical Sub-BMCs from 2017 To 2019

Figure 3.4. 3: Trend in Admissions from 2015 to 2019





Figure 3.4. 4: Percentage Trend of Referrals and Bed Utilisation

WARD		2018		2019				
	ADMISSIONS	DISCHARGES	AVERAGE LENGTH OF STAY (ALOS)	ADMISSIONS	DISCHARGES	AVERAGE LENGTH OF STAY (ALOS)		
Delivery Suite	2487	1726	1.5	1861	1626	1.5		
Paediatric	1742	1765	5.3	1833	1791	6.2		
Gynaecology	1963	2744	3.8	2180	2539	4.4		
Male Surgical	1109	1144	8.2	1273	1241	9.3		
Female Surgical	760	731	8.3	877	857	8.1		
Male Medical	839	699	7.0	885	733	6.5		
Female Medical	842	737	6.1	912	772	6.5		
NICU	890	617	7.2	1068	802	7.2		
ICU	126 (Trans-in 70)	9	6.9	114 (Trans-in 66)	6	11.1		
Executive Suite	107	99	6.9	84	83	10.3		
TOTALS	10,865	10,271	5.2	11,087	10,450	5.8		

WARD		2018			2019					
	AV. DAILY	% BED OCCUPANCY	DEATHS	DEATH RATE	AV. DAILY	% BED OCCUPANCY	DEATHS	DEATH RATE		
Delivery Suite	7	36.2	4	0.1	7	34.8	3	0.1		
Paediatric	27	55.9	88	4.7	32	67.2	119	6.2		
Gynaecology	29	63.5	15	0.4	30	67.8	9	0.3		
Male Surgical	27	62.7	50	4.0	33	77.4	64	4.6		
Female Surgical	18	48.0	53	6.4	20	54.4	51	5.4		
Male Medical	16	36.9	134	15.6	16	36.3	140	15.5		
Female Medical	14	33.1	116	13.3	16	37.9	144	15.4		
NICU	16	65.5	176	19.7	20	83.3	218	20.5		
ICU	2	36.2	106	54.6	3	49.5	92	52.3		
Ex Suite	2	64.4	3	2.8	2	79.8	3	3.1		
TOTALS	157	50.5	745	6.8	180	55.2	843	10.3		

Table 3.4. 2: In-Patient Service Utilization – Bed State - B

#### 3.5 TOP TEN CAUSES OF ADMISSION

Pregnancy complication remained the highest among the top ten admissions in the hospital. However, there has been a progressive reduction in the number of pregnancy complication cases at the institution over the past three years from 1242 (10.9%) cases in 2017 to 556 (4.6%) in 2019. This could be attributable to the extension of continuous peripheral support over the years by the institution and the management of cases at the antenatal clinic. The second ranked admission among the top ten is by Hernia with 349 cases which represents 2.9% and the least among the top ten cases admitted in 2019 remained Cerebrovascular Accident (CVA) with 225 cases representing 1.9%. Detailed comparative analysis is provided in table 3.5.1 below.

2017		2018		2019		
CONDITION	NUMBER	CONDITION	NUMBER	CONDITION	NUMBER	
Pregnancy Complications	1242(10.9%)	Pregnancy Complications	699 (6.4%)	Pregnancy complications	556 (4.6%)	
Hernia	387(3.4%)	Jaundice (Neo)	392 (3.6%)	Hernia	349 (2.9%)	
Pre-Maturity	290(2.5%)	Hernia	316 (2.9%)	Pneumonia	347 (2.9%)	
Bronchopneumonia	246(2.1%)	Pre-Maturity	293 (2.7%)	Asphyxia	332 (2.8%)	
Pneumonia	239(2.1%)	Sepsis (neo)	274 (2.5%)	Cancers	283 (2.4%)	
UTI	234(2.0%)	Kidney Diseases	255 (2.3%)	Kidney Diseases	281 (2.3%)	
Anaemia	197(1.7%)	Asphyxia birth (Neonatal)	215 (1.9%)	Pre-maturity	277 (2.3%)	
Diabetes Mellitus	183(1.6%)	Bronchopneumonia	185(1.7%)	Fractures	262 (2.2%)	
Jaundice (Neo)	178(1.6%)	Pneumonia	173 (1.5%)	Jaundice (neonatal)	228 (1.9%)	
CVA	171(1.5%)	Cerebrovascular Accident (CVA)	169 (1.5%)	CVA	225 (1.9%)	

 Table 3.5. 1: Top Ten Causes of Admission from 2017 to 2019

#### 3.6 INSTITUTIONAL MORTALITY

Mortality indicators are one of the key indicators in determining the performance of an institution in general. Over the years, the facility continuously tried to put in measures in place to improve on the survival chances of patients. However, the mortality rate continues to increase since 2016 and in 2019 it went up from 9% in 2018 to 10.3% in 2019. Evidently a lot needs to be done in order to improve the survival chances of many of the patients who access care at the facility. Detailed comparative trend analysis on the hospital mortalities and categorization have been is illustrated in figure 3.6.1 to 3.6.2 and table 3.6.1 below.



Figure 3.6. 1: Trend in Mortality Rate from 2016 to 2019

Figure 3.6. 2: Institutional Mortality Categorization from 2014 To 2019



INDICATORS	2014	2015	2016	2017	2018	2019	% Diff.
Deaths (Ward)	667	676	746	733	745	843	13.0% Incr.
Death (A&E)	331	280	336	398	364	437	20.1% Incr.
Death (Theatre)	2	3	4	14	6	7	16.7% Incr.
Death (Recovery ward)	6	5	11	3	5	20	300% Incr.
Total Hospital Death	1,006	964	1,097	1,148	1,120	1,307	16.6% Incr.
Mortality Rate (%)	8.3	7.8	8.3	8.7	9.0	10.3	14.4% Incr.
Brought in Dead	134	158	240	189	102	97	4.9% decr

Table 3.6. 1: Institutional Mortality Categorization

#### 3.6.1 TOP TEN CAUSES OF MORTALITY

Over the years, prematurity accounted for the leading cause of mortality. However, in 2019, the institution recorded sepsis as the leading cause among the top 10 with 93 cases forming 11.1% of the total cases followed by Asphyxia and prematurity, forming 9.3% and 8.3% among the total cases respectively. The 10<sup>th</sup> ranked condition among the top 10 mortality for 2019 was breast cancer with 26 (3.1%) cases. Detailed analysis provided in table 3.6.1.1 below.

2017		20	18	2019		
CONDITION	NUMBER (%)	CONDITION	NUMBER (%)	CONDITION	NUMBER (%)	
Pre-maturity	66(9.0%)	Pre-maturity	71 (9.5%)	Sepsis	93 (11.1%)	
Neonatal Sepsis	60(8.2%)	Asphyxia Birth (Neonatal)	47 (6.3%)	Asphyxia	78 (9.3%)	
Kidney Diseases	40(5.5%)	Jaundice	27 (3.6%)	Prematurity	70 (8.3%)	
CVA	31(4.2%)	Breast Cancer	20 (2.6%)	Pneumonia	63 (7.5%)	
Birth Asphyxia	26(3.5%)	Neonatal Sepsis	19 (2.5%)	Kidney Disease	50 (5.9%)	
Pneumonia	26(3.5%)	Prostate Cancer	16 (2.5%)	Congestive Cardiac Failure	44 (5.2%)	
CCF	23(3.1%)	Intestinal Obstruction	16 (2.5%)	Respiratory Failure	32 (3.8%)	
Bronchopneumonia	18(2.5%)	Ulcer	6 (0.8%)	Jaundice	32 (3.8%)	
Hypertension	17(2.5%)	Malnutrition	6 (0.8%)	Intestinal obstruction	32 (3.8%)	
Anaemia	15(2.0%)	Hernia	6 (0.8%)	Cancer Breast	26 (3.1%)	

Table 3.6.1. 1: Top Ten Causes of Institutional Mortality

### **3.7 OBSTETRIC SERVICES**

In 2019, the institution recorded a decline in total deliveries by 4.2% (3,160 in 2018 to 3,027 in 2019) whilst the percentage of Caesarean Section also dropped from 47% in 2018 to 41.2% in 2019. The antenatal registrants (new) went up by 6.8% (from 794 in 2018 to 802 in 2019) while the attendance increased by 5.2% (8,953 in 2018 to 9,419 in 2019). Detailed comparative trend analysis is provided in figure 3.7.1 and table 3.7.1 below.





Table 3.7. 1: Obstetric Service Indicators:

INDICATORS	2014	2015	2016	2017	2018	2019	REMARKS
Deliveries	2,618	2,854	2,904	3,055	3,160	3,027	4.2% Decr
Number of Babies	2,730	2,945	3,037	3,179	3,256	3120	4.2% Decr
% Supervised Deliveries	100	100	100	100	100	100	Sustained
Number of Caesarean Section	-	-	1109	1099	1480	1248	15.7% Dec
% Caesarean Section	35%	34%	38%	40%	47%	41.2%	5.8% Dec
Maternal Deaths	20	31	41	41	27	28	3.6 % Incr
Maternal Mortality Ratio Per 100,000 Live Births	772	1,111	1,428	1,335	860	958	Increased
ANC Registrants	568	630	716	748	794	802	6.8% Incr
ANC Attendance	7,332	7,982	8,567	10,141	8,953	9,419	5.2 Incr

#### 3.7.1 MATERNAL MORTALITY

The institution over the years have been implementing various measures to reduce institutional maternal mortality such as; providing targeted interventions, the use of mortality audit information to improve on subsequent outcomes, continuous onsite training on obstetric emergency triaging and management as well as the provision of specialist support to peripheral facilities which led to a drop in the deaths from 41 deaths in 2016 to 27 deaths in 2018 with a slight increase to 28 in 2019. Interestingly, the maternal mortality ratio increased from 854/100,000LB to 958/100,000LB in 2019 indicative of the fact that, there's room for improvement. The institution also needs to work
towards sustaining the gains made over the period even as the deaths are reduced further especially considering the fact that majority (58.6%) of the maternal deaths at the institution occurred within 48 hours of admission. The analysis is illustrated in figures 3.7.1.1 to figure 3.7.1.2 and Table 3.7.1.1 below.



Figure 3.7.1. 1:Trend in Maternal Mortality, 2015-2019

Figure 3.7.1. 2: Trend in Maternal Mortality Ratio / 100,000 Live Births, 2015-2019



#### Table 3.7.1. 1: Duration of Maternal Death in 2019

Duration of Maternal Death in 2019	Time of death		Source of Patients		
Maternal Death	<48 Hours	≥ 48 Hours	Referrals (Cases outside CCTH)	Non- Referrals (cases from within CCTH)	
	58.6%	41.4%	89.7%	10.3%	

#### 3.7.2 CAUSES OF MATERNAL MORTALITY

Haemorrhage, Hypertensive disorders in pregnancy and Sepsis remained the three leading causes of maternal mortality at the institution from 2017 through to 2019. However, pulmonary embolism which accounted for the top leading cause of maternal death in 2018 dropped to the 4<sup>th</sup> rank in 2019. Detailed analysis on the causes of maternal mortality is demonstrated in table 3.7.2.1 below.

2017		20	18	2019		
Condition	Percentage	Condition	Percentage	Condition	Percentage	
Hemorrhage	34.1%	Pulmonary	33.3%	Haemorrhage /	39.29% (11)	
		Embolism		Severe Anaemia		
Hypertensive	29.3%	Hemorrhage	29.63%	Hypertensive	32.14% (9)	
Disorders of				Disorders of		
Pregnancy				Pregnancy		
Sepsis	22.0%	Hypertensive Disorders of Pregnancy	29.63%	Sepsis	17.86% (5)	
Others	14.6%	Sudden Cardiac Death (Pm Diagnosis)	7.6%	Pulmonary Embolism	7.14% (2)	
				Sudden Cardiac Death (Pm Diagnosis	3.57% (1)	

 Table 3.7.2. 1: Causes of Maternal Mortality from 2017 to 2019.

#### 3.7.3: REFERRAL FACILITIES OF MATERNAL DEATHS

In 2019, the institution recorded a decreased in the percentage of maternal admission due to external referral from 41.4% in 2018 to 27.2% in 2019 partly due to the continuous extension of peripheral support lower level facilities to help build capacity and improve their ability to management cases. Despite that, the hospital recorded a marginal increase in the number of maternal deaths by 3.7% (from 27 to 28) and 24 of the deaths were cases referred from the peripheral facilities whilst 4 were internal (CCTH clients). Table 3.7.3.1 below provides detailed analysis of the number of maternal deaths and the referral sites.

Table 3.7.3.	1: Referra	Facilities	of Maternal	Deaths
--------------	------------	------------	-------------	--------

REFERRAL INSTITUTION	NO	REFERRAL INSTITUTION	NO
Mercy Women's Clinic – Mankessim	3	CCTH	4
Winneba Trauma and Specialist Centre	3	Unknown facilities	3
Ewim Polyclinic	1		
Elmina Urban Health Center	1		
Atobiase Community Clinic	1		
St. Luke's Catholic Hospital, Apam	1		
Saltpond Municipal Hospital	2		
UCC Hospital	2		
Moree Health centre	2		
St. Francis X'avier	1		
Ankaful	1		
Cape Coast Metropolitan Hospital	3		

#### 3.8 CHILD HEALTH SERVICES

As a tertiary health institution, the institution provides paediatric specialist services such as, Paedics-Neuro, Paedics-Asthma, Paedics-Renal, Paedics-Cardiology clinic etc. However, in 2019 the hospital recorded a drop in paediatric specialist clinic attendance by 13.3% (from 384 in 2018 to 333 in 2019). The total paediatric admission increased by 5.2% (from 1742 in 2018 to 1833 in 2019) whilst the total admission at the NICU (Special Care Baby Unit) increased by 20% (from 890 in 2018 to 1068 in 2019). Also, the neonatal admission due to external referral increased from 26.1% in 2018 to 27.2% in 2019.

#### 3.8.1 TOP 10 CAUSES OF CHILD HEALTH ADMISSION

Asphyxia, Pre-maturity and Jaundice were the leading causes of paediatric admission in 2019 at the institution. However, malnutrition and sickle cell which ranked the 8<sup>th</sup> and 10<sup>th</sup> among the top 10 causes of paediatric admission remains a concern across board. There is still a need for targeted intervention to address such morbidities among children to reduce the admission rate. A trend analysis of the top 10 paediatric admission at the institution is provided in figure 3.8.1.1 and table 3.8.1.1 below.



Figure 3.8.1. 1: Top 10 Causes of Child Health Admission from 2017 to 2019

Table 3.8.1. 1: Top 10 Causes of Child Health Admission from 2017 to 2019

2017		2018		2019	
CONDITION	NO. OF CASES	CONDITION	NO. OF CASES	CONDITION	NO. OF CASES
Pre-Maturity	290	Jaundice	392	Asphyxia	328
Jaundice	257	Pre-Maturity	293	Pre-Maturity	277
Brochopneumonia	233	Neonatal Sepsis	275	Jaundice	262
Sepsis of the cord	196	Brochopneumonia	251	Brochopneumonia	181
Asphyxia birth	142	Neonatal Asphyxia	215	Sepsis	159
Anaemia	110	Malaria	153	Malaria	125
Pneumonia	93	Anaemia	96	Hernia	62
Hernia	85	Hernia	64	Malnutrition	59
Sickle cell crisis	72	Sickle cell crisis	64	Anaemia	50
Bronchiolitis	50	Tonsilitis	56	Sickle Cell	41

#### 3.8.2 CHILD HEALTH PERFORMANCE INDICATORS

The institution for the first time recorded a reduction in the number of live babies by 4.2% (from 3256 in 2018 to 3120 in 2019). There was a marginal decrease in the number of macerated still births by 2.2% (from 89 in 2018 to 87 in 2019). Despite the continuous interventions being implemented amidst the challenges confronting the institution, the hospital continues to record high child mortality. For instance, still birth rate went up from 36/1000LB in 2018 to 42/1000LB in 2019 whilst children under five mortality rate increased from 77/1000LB to 101/1000LB. The neonatal mortality rate also went up from 63/1000LB in 2018 to 80/1000LB in 2019. There is still an urgent need for the problem to be holistically addressed with targeted intervention to improve the survival chances of children. Table 3.8.2.1 and figure 3.8.2.1 to figure 3.8.2.2 provides detailed comparative trend analysis below.

INDICATORS	2014	2015	2016	2017	2018	2019	REMARKS
Number Of Babies	2,730	2,945	3,027	3,179	3,256	3120	4.2% decr.
Live Births	2,590	2,789	2,870	3,072	3,138	2994	4.6% decr.
Still Births	140	156	161	107	118	126	6.8% incr.
	FSB – 65	FSB – 96	FSB –	FSB – 53	FSB – 29	FSB - 39	34.5% incr.
			76				
	MSB –	MSB - 60	MSB -	MSB - 54	MSB - 89	MSB - 87	2.2% decr.
	75		85				
Still Birth Rate Per	51	53	53	34	36	42	Incr.
1000 Live Birth							
Infants Admissions-	1,286	1,172	1,352	1,442	1,697	1660	2.2% decr.
Institutional							
Number Of < 5 Deaths	254	237	250	219	242	301	24.4% incr.
Under 5 Mortality Rate	98/1000	85/1000	87/1000	71/1000	77/1000	101/1000LB	Incr.
(/1000 LB)	LB	LB	LB	LB	LB		
Infant Deaths	221	213	236	201	216	272	25.9% incr.
Neonatal Deaths	189	173	207	180	197	239	21.3% incr.
Neonatal Mortality	73	62	72	59	63	80	Incr.
Rate (/1000LB)							

#### Table 3.8.2. 1: Child Health Performance Indicators



Figure 3.8.2. 1: Trend of Neonatal and Infant Mortality Rates for 2016-2019

Figure 3.8.2. 2: Rate of Under 5 Year Mortality /1000 LB, 2016-2019



#### 3.8.3 TOP TEN CAUSES OF MORTALITY AMONG CHILDREN UNDER FIVE YEARS

Over the past three years, asphyxia, prematurity, and sepsis remained the leading causes of under-five (U5) mortality. In 2019, the incidence of rate of Asphyxia was 22.4%, whilst prematurity and sepsis conditions were 20.1% and 9.2% respectively. Interestingly, the same conditions were among the top causes of child admission. Figure 8.3.3.1 and figure 8.3.3.2 below illustrates the top 10 causes of Under 5 Mortality and showcase case specific rate for top ten under 5 mortality in 2019 whilst table 3.8.3.1 provides a comparative analysis of top ten causes of under-five mortality from 2018 to 2019 below.









 Table 3.8.3. 1: The Comparative Analysis of Top Ten Causes of Under 5 Mortality

 from 2018 to 2019

201	8	2019		
CONDITION	NO. OF CASES	CONDITION	NO. OF CASES	
Pre-maturity	71	Asphyxia	78	
Asphyxia birth	47	Pre-maturity	70	
(neonatal)				
Neonatal Jaundice	31	Sepsis	32	
Neonatal Sepsis	22	Neonatal Juandice	30	
Malnutrition	7	Respiratory Failure	25	
Brochopnemonia	6	Brochopneumonia	23	
Meningitis	6	Encephalopathy	13	
Anaemia	5	Respiratory Distress	12	
Burns	2	Malnutrition	11	
Gastroenteritis	2	Intestinal Obstruction	11	

#### 3.8.4: CHILD HEALTH – ANALYSIS OF SPECIALIST CLINICAL ATTENDANCE

In 2019, the total paediatric specialist clinic attendance went up by 16.9% (from 744 in 2018 to 870 in 2019). Also, there was a significant rise in the attendance of the paediatric sickle cell clinic by 61.5% (from 205 in 2018 to 331 in 2019). However, there were some significant drops. Paediatric cardiology attendance dropped by 30%, paediatric Neurology attendance reduced by 18.5% whilst the asthma and renal attendance dropped by 18.5% and 2% respectively. Details provided in table 3.8.4.1 below. The drops in attendance need to be investigated to ascertain whether or not it's due to that fact that there are fewer incidences in the community or challenge with access/affordability of service of the parents of these children.

Specialised Clinics	2018	2019	Remarks
Paedics-Neuro clinic	168	137	18.5% decr
Paedics-Asthma clinic	87	78	10.3% decr
Paedics-Renal clinic	99	97	2% decr
Paedics-Cardio. clinic	30	21	30% decr
Paediatrics - Sickle Cell clinic	205	331	61.5% incr
NICU Follow -Up	155	206	32.9% incr
Total Cases	744	870	16.9% incr

Table 3.8.4. 1: Comparative Trend Analysis of Paediatric Specialist OPD Services from 2018 to 2019.

#### 3.9 SURGICAL SERVICES

The hospital provides various surgical services such as Orthopaedic, Neuro, Uro, Plastics, General Surgery, Maxillofacial and Dental, Eye and ENT Services.

The hospital between 2015 to 2017 recorded a consistent increase in the general surgical OPD attendance. However, between 2017 and 2019 there has been a continuous decline by 18.9% (from 4234 in 2018 to 3433 in 2019). Generally, the surgical sub-specialties attendance has been fluctuating since 2015 but in 2019, the Neuro-surgical clinic attendance went up significantly by 76.6% (from 351 in 2018 to 620 in 2019).

#### 3.9.1 THEATRE SERVICES UTILIZATION

The hospital over the years recorded fluctuation in total surgeries performed but in 2019, there was a significant increase of 29.2% (from 3728 in 2018 to 4815 in 2019) and the surgeon to surgery ratio went down from 133:1 to 127:1 due to the improvement in the number of surgical specialists. Also, the theatre death rate went up slightly from 0.3% in 2018 to 0.6% in 2019. Interestingly, whilst the major surgeries performed by the surgical departmental went up significantly by 86.9% (from 1,573 in 2018 to 2,940 in 2019), Obstetrics and Gynaecology related major surgeries dropped by 15.1% (from 1,776 in 2018 to 1,508 in 2019). Currently nine major specialties/sub specialties utilize the hospital's theatre. These specialties are General surgery, Uro-surgery, Orthopaedics surgery, Plastic surgery, Maxillofacial surgery, Paediatrics surgery, Neuro surgery, Obstetrics and Gynaecology, Ear Nose and Throat (ENT) as well as Ophthalmology. Out

of these 9 specialties, the institution recorded consistent increase in the neurosurgical operations over the past four years (from 4 surgeries performed in 2016 to 85 neurosurgeries in 2019 with 83.3% increase compared to 2018 (from 45 in 2018 to 85 cases in 2019). Despite the general fluctuating figures in almost all of the surgical cases, 6 out of the 9 surgical specialties, recorded significant increase in the total surgeries performed in 2019. For instance, the institution recorded a major increase in ophthalmology surgeries in 2019 by 462% (from 232 in 2018 to 1,305 in 2019) which could be attributed to the outreach support by the Himalayan Cataract Project, an NGO incorporated in the United States of America. General surgical cases equally went up by 55.4% in 2019 (from 626 in 2018 to 973 in 2019) whilst Uro-surgical cases dropped by 16.2% (from 228 in 2018 to 191 in 2019). Detailed comparative analysis on theater utilization and trends in surgeries performed from 2016 to 2019 by specialty illustrated in figure 3.9.1.1 to figure 3.9.1.3 and table 3.9.1.1 below.



Figure 3.9.1. 1: Five Year Trend Analysis of Surgeries Performed (2016-2019)



Figure 3.9.1. 2: Trend of Theatre Service Utilization

Figure 3.9.1. 3: Trend of Surgeries Performed per Specialty- 2016 to 2019



SURGICAL SPECIALTY	2016	2017	2018	2019	REMARKS
General Surgery	1,066	1,013	626	973	55.4% increase
Uro-Surgery	145	175	228	191	16.2% decrease
Orthopaedics Surgery	153	154	144	186	29.2% increase
Plastic Surgery	91	99	44	82	86.4% increase
Maxillofacial Surgery	43	17	18	69	283.3% increase
Paediatrics Surgery	95	95	-	98	-
Neurosurgery	4	16	45	85	83.3% increase
OBGY	1,411	1,532	1,804	1,562	13.4% decrease
ENT	160	220	264	222	15.9% Decr.
Ophthalmology	140	240	232	1,305	462.5% Increase

Table 3.9.1. 1: Trend of Surgeries Performed per Specialty- 2016 to 2019

### **3.9.2 TOP TEN SURGICAL OPERATIONS**

The hospital for the first-time recorded eye surgeries as the leading surgical operations conducted in 2019 which represents 27.1% of the total surgeries carried out in the same year and making caesarean section dropping for the first time to the second among the top 10 surgeries. This development is largely attributable to the Himalayan Cataract project at the institution. In the same light, Neurosurgeries for the first time accounted for the 1.8% (8<sup>th</sup> position among the top 10) of the total surgeries performed in 2019. Detailed comparative analysis provided in table 3.9.2.1 below.

Table 3.9.2.	1: Тор	Surgical	Operations	(2017 -	2019)
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No.	2017		20	18	2019	2019	
	Type of Case	No. Performed	Type of Case	No. Performed	Type of Case	No. Performed	
1	Caesarean	1,219	Caesarean	1,492(40.0%)	Eye Surgeries	1,305	
	Section	(10% Increase)	Section			(27.1%)	
2	Hernia-	264	Eye Surgeries	232(6.2%)	Caesarean	1,248	
	Reducible	(2% Increase)			Section	(25.9%)	
3	Laparotomy-	240	Hernia-	228(6.1%)	Hernia	349(7.2%)	
	Exploratory		Reducible				
		(21% Increase)					
4	Eye Surgeries	230	Laparotomy-	170(4.6%)	ENT Surgeries	181 (3.8%)	
		(4% Decrease)	Exploratory				
5	ENT	212	ENT	152(4.1%)	Laparotomy for	145 (3.0%)	
	Operations	(56% Increase)	Operations		Exploratory		
6	Plastics	100	Laparotomy-	81(2.2%)	Appendicectomy	119 (2.5%)	
	Surgeries	(10% Increase)	Ectopic				
7	Operations on	87	Appendectomy	75(2.0%)	Laparotomy -	88 (1.8%)	
	Fractures	(12% Increase)			Ectopic		
8	Myomectomy	80	Myomectomy	75(2.0%)	Neurosurgeries	85 (1.8%)	
		(23% Increase)					

No.	2017		201	18	2019		
	Type of Case	No. Performed	Type of Case	No. Performed	Type of Case	No. Performed	
9	Appendectomy	72 (6% Decrease)	Removal of Tonsils & Adenoid	72(1.9%)	Plastics Surgeries	82 (1.7%)	
10	Mastectomy	70 (1.8%)	Operations on Fractures	52(1.4%)	Removal of superficial Tumours	74 (1.5%)	
	Others	1279	Others	2,629	Others	1139 (23.7%)	
	Total Surgery	3,853	Total Surgery	3,728	Total Surgery	4815	

### 3.10: DIAGNOSTIC SERVICES UTLIZATION TREND (2015 TO 2019)

The hospital over the past five years recorded continuous increment in diagnostics client base. The institution in 2019 recorded 9.4% and 6.9% increase in laboratory and radiology clients respectively. In the same light, whilst the total laboratory investigations conducted went up by 5.9%, the radiology investigations done dropped marginally by 2.3% in 2019. Autopsy is one of the major pathology services carried out at the institution. However, sometimes there is difficulty in people understanding its importance and giving consent for an autopsy to be performed especially when indicated. This resulted in the drop in the number of autopsies performed in 2019 by 9.4% (241 in 2018 to 218 in 2019). Figure 3.10.1 and table 3.10.1 provides detailed trend analysis of the diagnostics services at the institution from 2015 to 2019 below.



Figure 3.10. 1: Diagnostics Services Trend – 2015 to 2019

DIAGNOSTICS SERVICES	2015	2016	2017	2018	2019	REMARKS				
LABORATORY SERVICES										
Number of clients	41,989	58,585	68,368	64,030	70,021	9.4% incr.				
Number of tests conducted	142,070	159,372	266,635	275,329	291,677	5.94% incr.				
	R	ADIOLOG	Y SERVIC	ES						
Number of clients	-	-	16,694	16,482	17,624	6.9% incr.				
Number of tests conducted	10,816	14,286	17,342	20,766	20,285	2.3% decr.				
PATHOLOGY SERVICES (AUTOPSY)										
Number of Autopsy	-	484	244	241	218	9.4% decr.				

#### 3.11 BLOOD TRANSFUSION AND BLOOD DONATION CATEGORIES

Transfusion of blood and blood product remains essential live saving treatment. Over the past four years there has been timely demand of blood to improve the survival chances of many patients in critical state generally. In 2019, the hospital recorded a significant rise in the total FFP transfused by 30.0% (from 660 in 2018 to 858 in 2019) whilst recording a decline in both whole-blood transfused by 8.2% (from 5313 in 2018 to 4878 in 2019). Due to the essential nature of blood and blood product to improve the survival chances of many patients, the institution implements various strategies yearly to ensure its continuous and timely availability by encouraging voluntary blood donation, mobile blood donation outreach and enforcing blood transfused replacement system among others.

However, in 2019, the total voluntary blood donors and donors during the mobile blood donation outreaching dropped by 8.9% and 13.8% respectively whilst total replacement donors and walk-in donors went up by 2.7% and 12.6% respectively. Unfortunately, the total unsafe blood recorded also went up significantly by 18.5% (394 in 2018 to 467 in 2019). Evidently, more education and awareness need to be intensified on the importance of blood donation and on healthy living (infection prevention) so that blood donated can be useful. Figure 3.11.1 and figure 3.11.2 as well as table 3.11.1 and table 3.11.2 provides detailed trend analysis below.



Figure 3.11. 1: Blood Transfusion Services From 2017 To 2019

 Table 3.11. 1: Trend In Blood Transfusion From 2016 - 2019

INDICATOR	2016	2017	2018	2019	% Diff.
Whole Blood	4,258	4,901	5,435	5282	2.8%
Crossmatched					decr.
Whole Blood	3,924	4,229	5,313	4878	8.2%
Transfused					decr.
FFP Transfused	570	822	660	858	30.0%
					incr.



Figure 3.11. 2: Blood Donation Trend from 2016 To 2019

Table 3.11. 2: Blood Donation Trend From 2016 - 2019

CROUDS		% Diff.			
GROUPS	2016	2017	2018	2019	
VOLUNTARY BLOOD DONORS	-	1988	2197	2001	8.9% decr.
REPLACEMENT/ PREDEPOSIT	4,062	3,509	3,331	3422	2.7% incr.
WALK-IN	192	89	95	107	12.6% incr.
MOBILE SESSION (UNSCREENED)	3,361	1,899	2,196	1894	13.8% decr.
ANC	201	195	129	61	52.7% decr.
UNSAFE BLOOD /DISCARDED	194	435	394	467	18.5% incr.

#### 3.12 LABORATORY SAMPLES REFERRED OUTSIDE CCTH

The institution over the years identified and liaises with other public laboratory institutions to conduct investigations on suspected cases such as, H1N1, Rubella, Buruli Ulcer etc. In 2019, the number of suspected H1N1 cases increased total of 215 from 89 in 2018. Also, total of 559 and 73 HIVL and EID samples were respectively referred to other laboratory facilities in 2019. The hospital did not record any suspected Rubella and Buruli Ulcer cases in 2019. Details provided in table 3.12.1 below.

TESTS	2016	2017	2018	2019
TB CULTURE (DR, DST)	10	4	13	-
TB CULTURE (LPA)	-	-	9	-
H1N1 (INFLUENZA)	18	256	89	215
RUBELLA	8	7	4	0
BURULI ULCER	-	3 (1)	0	0
HIVL	-	-	-	559
EID	-	-	-	73

 Table 3.12. 1: Laboratory Samples Referred to Outside Facilities

#### 3.13 DIALYSIS SERVICE UTILIZATION

The Hospital's Dialysis Center is the second largest renal institution in Ghana and it's a key referral institution for renal services. The center has been in full operation after some refurbishment in August 2013 under Ghana-Japan collaboration (Tokushukai Medical Group) programme. The institution provides dialysis treatment for both acute and chronic kidney patients who are mostly resident in the Central and Western Regions.

#### 3.13.1 DIALYSIS SERVICE UTILIZATION

Over the past four years, the hospital continuously recorded rise in the total number of OPD Renal clinic attendance generally but in 2019 there was significant increase by 50.2% (from 888 in 2018 to 1334 in 2019). Most people in need of renal dialysis in Ghana have challenge affording the service. In 2019, the number clients who accessed dialysis service dropped by 6.2% (from 195 in 2018 to 183 in 2019) and the number of dialysis sessions carried out at the institution also dropped by 13.7% (from 5265 in 2018 to 4546 in 2019). Figure 3.13.1.1 and table 3.13.1.1 provides detailed trend analysis below.





Table 3.13.1. 1: Analytical Trend of Renal and Dialysis Services (2014 To 2019)

INDICATOR	2014	2015	2016	2017	2018	2019	REMARKS
OPD Renal Attendance	-	-	389	849	888	1334	50.2% incr.
Patients on Dialysis	24	42	65	75	195	183	6.2% decr.
Number of Dialysis Sessions	1185	2181	3857	4457	5265	4546	13.7% decr.

# CHAPTER FOUR

# **TECHNICAL AND GENERAL SERVICES**

#### 4.1 INTRODUCTION

The Technical and general service in the hospital are provided mainly by the Technical Service Sub-BMC, Domestic Service Sub-BMC, General Administration Unit, with the Procurement and Hospital Store Units providing logistical support.

The Technical Service Sub-BMC deals with Estates, Equipment and ICT activities; Domestic Services Sub-BMC (Laundry, Tailoring, CSSD, Catering, Environmental Health and House Keeping services) whilst the General Administration Unit manages Transport, Security, General Secretarial services, and Medico Social Welfare.

Some achievements of the sub-BMC are as follow:

#### 4.2 ESTATE - PHYSICAL INFRASTRUCTURE

The institution achieved a number of infrastructural activities planned. Such as;

- 1. Improved planned preventive maintenance and inspection
- 2. Renovation works carried out at the waste stabilization pond.
- 3. Re-fixed collapsed Ward Pharmacy ceiling, Male Medical Isolation Ward, Dietician's Office (Kitchen), Administration Washroom, Laboratory, OPD Top.
- 4. Retiled Dental and Maxillofacial Unit, and Kitchen walk-in freezer floor.
- 5. Repainted Cancer Registry Corridor, Male Medical Ward left Wing Cubicle, A&E, OPD Top, Blood Collection and Restroom at Laboratory.
- 6. Constructed Alucoboard and Glass panel cubicle for Cancer Registry.
- 7. Painted,
  - a. Portions of the façade of the Outpatient Department, consulting rooms, waiting areas and corridors at Out-patient department.
  - b. parts of Administration, Out-patient Department, X-Ray Department, Laboratory, A&E Dept. and Lecture Hall.
  - c. Kitchen-Walkway entrance and food collection area.
- 8. Constructed staff lockers/cabinets for Surgical Suite Male and Female changing rooms and Anaesthesia Restroom.
- Constructed and installed Alucoboard, made an external double leaf door at X-Ray.
- 10. Renovated Residential Bungalow No: 4, and Residential Flats B7, C2, E3, E5, H2, H6 & D2.
- 11. Undertook various auxiliary works at the hospital's primary care institution (Polyclinic).
- 12. Undertook further rehabilitation works at the Sewerage Treatment Plant (waste stabilization pond).
- 13. Completed works on the reconstruction of the collapsed underground drain at Kitchen
- 14. Repaired multiple leakages on the Liquefied Petroleum Gas (LPG) tanks and lines.
- 15. Replaced defective insect-proof nets at some wards and out-patient department.

16. Updated the Asset Register and marked some assets.

#### **4.3 ICT INFRASTRUCTURE**

Various clinical activities were performed in 2019. Such as,

- 1. Mounted five (5) new digital screens with the help and initiative of our CEO and relocated three (3) old ones. The screens are used to display health-related educative videos and messages to clients.
- 2. Organized in-service training on the LHIMS application for about 700 staff. Staff trained included house officers, newly recruited nurses, rotation nurses, and other cadres of staff.
- 3. Deployed computers to the hospital's primary care institution (Polyclinic) on time to facilitate the operationalization of the Polyclinic.
- 4. Repaired about 10 damaged power packs (which are not available on the local market) with assistance from a Technologist attached to the Equipment Unit.
- 5. Salvaged 8 damaged computers and over 10 UPS for use.
- 6. Purchased a new microphone receiver for the Public Address Systems at the Lecture Hall and OPD Information Desk.
- 7. Undertook corrective and Planned Preventive Maintenance (PPM) activities on ICT equipment and networking devices:
  - ➤ Implemented all PPM plans as scheduled.
- 8. A Website Management & Health Marketing Committee was formed and inaugurated on 4th Feb. 2019. The committee met several times and have made significant improvements to the hospital website and submitted other proposals.
- Completed work on the extension of hospital's Local Area Network (LAN) to the Obstetric Emergency Block, Mortuary, Top Floor of 24-Hour Retail Building, Mothers' Hostel & Child Health Sub-BMC offices, Polyclinic and other service points in the hospital.
- 10. Installed a projector at the hospital's Boardroom and Lecture Hall.
- 11. Started night and weekend duty shifts to provide IT support for various departments promptly.
- 12. Carried out software maintenance of the three (3) main client service software used in the hospital. These are the LHIMS, PHARMAS, and HR software.
- 13. Liaised/worked with the company contracted to provide and maintain LHIMS application on,
  - i. customization of the LHIMS application to suite CCTH operations and needs
  - ii. Updating and upgrading of the application at regular intervals.
- 14. Set-up corporate e-mail accounts for all Directors to use for official e-mail correspondence.
- 15. Ensured the timely submission of national health insurance claims to the NHIA office on behalf of the NHIA Claims Unit via XML file.

#### 4.4 GENERAL AND MEDICAL EQUIPMENT

- 1. 60% of Planned preventive maintenance was undertaken on various equipment; such as the,
  - CSSD & Laundry equipment
  - Passenger Lift (escalator)
  - Power Generators
  - Imaging Equipment

➢ Dialysis Machines, Suction Machines, Ventilators, Patient Monitors, Anaesthesia Machines, beds, bedside lockers, trolleys, wheelchairs, airconditioners, etc.

- Repaired and/or facilitated the repair of various faulty instruments and equipment; Air conditioners, Refrigerators, Cold Rooms, Imaging Equipment, Suction Machines,
- Sphygmomanometers, ECG Machine, Ventilators, Patient Monitors, Anaesthesia Machines, Ophthalmic Equipment, Gas Cookers, Food Warmers, Incubators, Centrifuges, Laboratory Analysers, Oxygen Wall Terminals, Oxygen Plant, etc.
   D. Refurbished steel cabinets, couches, trolleys, etc.
- E. Installed or assisted in the installation of various equipment purchased or received through donations: key amongst them were,
- Anaesthesia Machines, Patient Monitors, Suction Machines, Oxygen Flowmeters, Air-conditions, etc.
- > Theatre Bed, Patient Trolleys, Patient Screens, Wheelchairs, etc.

In addition to the above, we undertook the usual routine activities in the area of clinical engineering, electrical, refrigeration, plumbing, tiling, flooring, painting, ceiling and roofing repairs, plus addressing over 1,000 verbal maintenance requests and over 3,200 requests from Wards, A&E, and Operating Theatres for the supply of medical oxygen supply in cylinders.

#### 4.5 EQUIPMENT UTILIZATION AND DOWN TIME ANALYSIS

Equipment Down time is the proportion of time a particular equipment is not available for usage as a result of breakdown whereas, the Equipment Utilization Rate is the proportion of the available time in percentage that a piece of equipment functioned.

The institution since 2017 has been recording an improvement in the percentage equipment downtime (CT Scan as proxy). In 2019, an improvement was recorded in the percentage equipment downtime (from 1.92% in 2019 to 0% in 2019). The equipment utilization rate (CT Scan) also increased from 74.18% in 2018 to 83.07% in 2019 in spite of the occasional challenges experienced with the AVR connected to the CT-Scan. Table 4.5.1 to table 4.5.3 below provides a detailed analysis of selected medical equipment downtime and utilization. Table 4.5.1 to table 4.5.2 and figure 4.5.1 below provides a detailed analysis of selected medical equipment down time and utilization.

IMAGING EQUIPMENT DOWNTIME								
Equipment Type	D	owntime	Rate	Pomarks				
	2017	2018	2019	Remarks				
CT-Scan	7.69%	1.92%	0%	2017 & 2018 Downtime was caused by fault with UPS and AVR connected to CT-SCAN breakdown. 2019 No downtime during the first half of the year.				
Ultrasound Machine	N/A	N/A	0%					
X-Ray Machine 1 (Philips)	N/A	N/A	4.27%					
X-Ray Machine 2 (Fuji)	N/A	N/A	53.00%					
Fluoroscopy Machine	N/A	N/A	N/A					
Magnetic Resonance Imaging (MRI)	100%	100%	100%	This equipment was never handed over since its installation due to technical faults. Issues relating to this equipment and building being resolved by the Ministry of Health.				

### Table 4.5. 1: Selected Equipment Downtime Analysis of Imaging Equipment

### Table 4.5. 2: Equipment Utilization – IMAGING

IMAGING EQUIPMENT UTILIZATION								
Equipment Type	Equipment Type Avg. Operating		Dement Ut Rate for N	ilization (ear	Remarks			
	Hours	2017	2018	2019				
CT-SCAN	8 hrs per working day 2 hours per weekend / public holiday	34.76%	74.18%	83.07%	The low rate of utilization in 2017 was as a result of the frequent interruption in power supply from ECG and breakdown of generator providing back-up power supply on two occasions and also fault with the AVR attached to the CT-Scan machine. Utilization during the year was high notwithstanding occasional challenges with AVR connected to the machine. Generator was used to power the CT- SCAN anytime the AVR develops a fault.			

IMAGING EQUIPMENT UTILIZATION								
Equipment Type	Avg. Equipment Operating	Equip F	oment Ut Rate for Y	ilization 'ear	Remarks			
	Hours	2017	2018	2019				
Ultrasound Machine	9 hrs per working day 2 hours per weekend / public holiday	N/A	*77.56% (Aug Dec. 2018)	*69.52% (Mar. – Dec. 2019)				
Fluoroscopy Machine	8 hrs per working day 2 hours per weekend / public holiday	N/A	N/A	N/A				
X-Ray Machine 1	8 hrs per working day 2 hours per weekend / public holiday	N/A	*38.76% (Aug Dec. 2018)	*47.20%	NOTE: Available working hours' / minutes calculation revised. 8 hours used for normal working hours instead of 9 hours used last year. Need to separate data capture on use of the two X-Ray Machines in order for us to know the true utilization for each machine.			
X-Ray Machine 2	-	N/A	-	-	-			
Magnetic Resonance IMAGING (MRI)	-	N/A	N/A	N/A	This equipment was never handed over since its installation due to technical faults. Issues relating to this equipment and building being resolved by the Ministry of Health.			



Figure 4.5. 1: Utilization Rates of Imaging Equipment - 2017 To 2019

### 4.6 TRANSPORT SERVICES

The hospital's fleet of vehicles remained at 14 both in 2018 and in 2019. Out of that, 4 of the vehicles are above 10 years and 5 are within the age range of 1 to 5 years (green zone). One of the vehicles, a pick-up, serve as the official vehicle for the CEO and one also serves as a duty vehicle for all directors. The rest except for 1 of the vehicles are in the hospital pool. One has been declared un-serviceable pending auctioning. Table 4.6.1 below shows details the age block of the vehicles, as well as the colour codes allocation based on the age of the vehicle during 2019 inventory.

2	2018		2019			
AGE BLOCK (YEARS)	ZONE	NUMBER	Age Block (Years)	Zone	Number	
1-5	Green	6	1-5	Green	5	
6-9	Yellow	6	6-9	Yellow	5	
10 and above	Red	2	10 and Above	Red	4	

# **CHAPTER FIVE**

# FINANCIAL PERFORMANCE

#### **5.1 INTRODUCTION**

The Financial performance of the hospital is dependent on various internal and external factors. The institution has an obligation to ensure the efficient and effective use of its funds with realistic budgeting. The chapter provides the summary of financial performance over a 4-year period.

#### **5.2 SOURCES OF FUNDING**

The Hospital is financed through multiple sources. These include;

1. Government of Ghana- GOG funds are provided for salaries of full-time employees and capital investments.

- 2. Internally Generated Fund (IGF)
  - a. Health Insurance The NHIS has become a major purchaser of Hospital services for both OPD/Inpatient clients. That's through medicines and general service delivery. Currently NHIS has 95% of disease conditions. However, reimbursement constitutes only about 20% of the cost of services (exclude salaries, Capital investment, cost of utilities, equipment cost, training, and research costs).
  - b. User Fees "Cash and Carry" which is direct payment from non-insured or services outside the NHIS benefit package e.g. Dialysis, mortuary, etc. This is a more reliable source of revenue for Hospitals. It constitutes between 10-20% of total IGF revenue". This is the life wire in the current challenges.
  - c. The IGF is used to finance several activities both recurrent and capital including; Procurement of medicines and non-medicine commodities, Logistics and Basic equipment, X-ray, Generator sets, vehicles, repair of morgue, construction of wards etc., Salaries of casual staff – which is growing, allowances of employees ( e.g. honorarium), Training of staff (In service Training, Post Basic, Post Graduate trainings), Maintenance of equipment, infrastructure, outsourced service charges, Utilities, electricity, water, telephone, internet broadband etc.

3. Donor fund –Donor funds to Hospitals are now come in support of programmes like; Malaria, HIV/AIDS and TB. In the past Hospitals were allocated donor pooled funds for service delivery and other operations but this fund has stopped for the last 6-7 years.

4. Donations – Hospitals seldomly receives donations of example; beds, medicines, medical equipment from philanthropic organizations.

#### 5.3 FINANCIAL PERFORMANCE HIGHLIGHTS (2014 to 2019)

The hospital has three main revenue sources. These are, Internally Generated Funds (IGF), from Government of Ghana (GOG) for compensation and GOG for service. As such, the institution makes revenue projections in line with the sources and monitors execution. In 2019, out of the IGF revenue budget of GHC24,387,598, the execution rate was 88.5%. In the same light, the institution recorded an execution rate for GOG compensation and GOG Service to be 98.93% and 110% respectively.

Although the hospital was unable to achieve its total revenue target of GH¢24,387,598 in 2019, it recorded an increase in total revenue by 13.9% (from GH¢18,944,945.89 in 2018 to GH¢21,579,680 in 2019). The hospital's expenditure in 2019 went up by 4.1% (from GH¢19,935,983.92 in 2018 to GH¢20,761,126.11 in 2019). Also, whilst there was a significant drop in expenditure on services in general by 89.8%, the expenditure on medicine went up by 28.1% in 2019. Table 5.3.1 to table 5.3.2 below provides detailed trend analysis of the financial performance of the institution.

BROAD REVENUE CATEGORY	2018			2019			
	BUDGET GH¢	PERFORM. GH¢	% EXECUTION	BUDGET GH¢	PERFORM GH¢	% EXECUTION	
IGF REVENUE	24,387,598	18,863,206	14.40% (+)	24,387,598	21,579,680	88.5%	
GOG COMPENSATION	48,435,279	37,898,586	26.43% (-)	48,435,279	47,916,682	98.93 %	
GOG SERVICE	100,000	20,000	-	100,000	110,000	110 %	
TOTAL RESOURCE ENVELOPE	72,922,877	56,781,792		72,922,877	69,606,362		

Table 5.3. 1 Performance Summary 2019

#### Table 5.3. 2: Performance Summary 2019

Financial Highlights	Target	PERF +/-	2019	2018	2017	2016	2015	
REVENUE GH¢								
SERVICES	17,887,598	+22.5%	15,832,185	12,982,266.79	12,497,893	10,287,152	7,559,080	
MEDICINES	6,500,000	-3.6%	5,747,495	5,962,679.10	4,591,576	3,874,689	2,518,013	
TOTAL	24,387,598	+13.9%	21,579,680	18,944,945.89	17,089,470	14,161,833	10,077,093	
EXPENDITURE GH¢								
SERVICES	18,000,000.00	-89.8%	15,832,184.9	15,450,199.35	11,304,559	9,829,251	6,440,080	
MEDICINES	4000,000.00	+28.1%	5,747,495.43	4,485,784.57	2,723,225	2,949,233	2,542,074	
TOTAL	24,387,598.98	+4.1%	20,761,126.11	19,935,983.92	14,027,784	12,778,483	8,982,154	

### 5.4 TREND OF IGF BUDGET EXECUTION GH¢

Generally, the institution's revenue target against actual rate achieved went up to 88.5% in 2019 compared to 73.5% in 2018 whilst the expenditure target execution dropped to 92.35% in 2019 (which includes compensation from IGF) as compared to the execution rate of 96.6% in 2018. Revenue target achieved under services also increased to 88.5% in 2019 as compared to 73.5% execution rate in 2018 whilst revenue target execution rate under medicine dropped to 88.4% in 2019 as compared to 94.1% in 2018. Further, the hospital's expenditure execution for services increased to 88.2% in 2019 compared to 85.8% in 2018 and that of medicine went down significantly to 86.2% in 2019 compared to 112.1% increase in 2018. Table 5.4.1 below provides a detailed financial performance trend analysis of the institution from 2016 to 2019.

Categ ory	% Ta Achie	rget eved	2019		2018 GH¢		2017 GH¢		2016 GH¢	
	2019	201								
		8	Budget	Actu al	Budget	Actual	Budget	Actual	Budget	Actu al
					REVE	NUE				
Servic	88.5	73.	17,887,5	15,83	17,664,0	12,982,2	13,800,	12,497,	9,350,0	10,28
es	%	5%	98	2,185	70.81	66.79	000	894	00	7,152
Medici	88.4	94.	6,500,00	5,747	6,335,92	5,962,67	4,733,5	4,591,5	3,200,0	3,874
ne	%	1%	0	,495	9.19	9.10	00	76	00	,689
ΤΟΤΑ	88.5	78.	24,387,5	21,57	24,000,0	18,944,9	18,533,	17,089,	12,550,	14,16
L	%	9%	98.98	9,680	00.00	45.89	500	470	000	1,833
					EXPEND	ITURE				
Servic	88.2	85.	19,232,7	16,38	18,000,0	15,450,1	13,533,	11,304,	8,063,0	9,829
es	%	8%	03.33	5,405 .93	00.00	99.35	500	559	00	,251
Medici	86.2	112	5,074,89	4,375	4000,00	4,485,78	4,733,5	2,723,2	3,200,0	2,949
nes	%	.1%	5.57	,720. 18	0.00	4.57	00	25	00	,233
TOTA L	92.4 %	96. 6%	24,387,5 98.98	20,76 1,126 .11	22,000,0 00.00	19,935,9 83.92	18,267, 000	14,027, 784	11,263, 000	12,77 8,483

Table 5.4. 1: Trend of IGF Budget Execution GH¢

#### 5.5 IGF PERFORMANCE STRUCTURE GH¢

The hospital improved on its revenue in 2019 by 13.9%. The revenue under NHIS went up by 22.86% whilst revenue under cash and carry increased by 5.6% (from GHC9,629,551.55 in 2019 to GHC11,831,200.31 in 2018). Generally, the hospital's IGF revenue improved in 2019. For instance; Out of Pocket Collections went up by 6.2% and Corporate/Private Insurance increased by 70.9% whilst the NHIA claims submissions also went up by 21.9%. Table 5.5.1 to table 5.5.2 and figure 5.5.1 below provides detailed trend analysis.

INCOME/REVENUE STATUS (CASH AND CARRY & NHIS)									
PERFO	TOTAL	%	NHIS			CAS	%		
RMANC E	REVENU E	DIFF	2019	2018	2017	2017	2018	2019	DIFF
Service	13,129,29	+36.8	8,955,29	6,544,40	6,865,33	5,632,56	6,584,89	6,876,89	+4.4
	3.79	4%	4.47	0.88	0.00	3.96	2.91	0.43	3%
Medicin	5,733,912.	-	2,875,90	3,085,15	3,692,91	1,851,65	2,648,76	2,871,58	+8.4
es &	53	7.28	5.84	0.67	3.74	6.47	1.86	9.59	1%
Pharma		%							
ceutical									
S									
TOTAL	18,863,20	+22.8	11,831,2	9,629,55	10,558,2	7,484,22	9,233,65	9,748,48	+5.6
	6.32	6%	00.31	1.55	43.74	0.43	4.77	0.02	%

 Table 5.5. 1: IGF Performance Structure GHC

Table 5.5. 2: Composition of IGF

SOURCE OF IGF	2019	2018	REMARKS
Out of Pocket Collections	9,748,480	9,176,902	6.2% incr
NHIA Submissions	11,734,192	9,629,550	21.9% incr
Corporate/Private Insurance	97,008.00	56,752	70.9% incr
Total Revenue Earned	21,579,680	18,944,945.89	13.9% incr.

Figure 5.5. 1: Composition of IGF



### 5.6 REVENUE CONTRIBUTION BY SUB-BMC/DEPARTMENT/UNIT (GH¢)

The institution largely generates its revenue from services being provided. As such, a decline in a service would affect revenue greatly. The surgical department continuously recorded highest revenue for the hospital over the past three years and saw 71.3% increase in 2019 (from GHC1,853,007.15 in 2018 to GHC3,174,277.00 in 2019). The revenue from dialysis services at the hospital declined by 18.8% in 2019 (from GHC1,008,281.64 in 2018 to GHC818,989.00 in 2019). This can be attributed to the decline in the number of clients by 6.2% (from 195 in 2018 to 183 in 2019) and reduction in the number of dialysis sessions by 13.7% (from 5265 in 2018 to 4546 in 2019). However, there was a significant increase in Eye service revenue (which includes eye surgeries) by 328.4% (from GHC102,769.95 in 2018 to 440,261.00 in 2019) but the general revenue from OPD services dropped significantly by 37.7% in 2019 (from GHC3,064,379.82 in 2018 to GHC1,909,435.00). Table 5.6.1 below provides a detailed analysis of revenue contribution from the various departments/Units within the institution.

Services	% DIFF	2019	2018	2017	2016
Surgical	71.3% incr	3,174,277.00	1,853,007.15	2,314,435.64	1,839,016
Medical	40% incr	2,446,170.00	1,747,227.41	1,622,621.93	1,321,301
C.T. Scan	43.6% incr	824,025.00	573,855.00		
Laboratory	9.1% incr	586,245.00	566,900.15	1,697,126.98	985,145
X-ray	10.5% incr	891,719.00	807,341.00		
OPD	37.7% decr	1,909,435.00	3,064,379.82	1,972,919.35	1,693,451
Obstetrics &	38.1%5 incr	2,295,246.00	1,661,906.95	1,786,889.27	1,472,884
Gynaecology					
Dental	8.9% incr	172,010.00	158,010.69	121,019.47	-
Child Health	74.7% incr	1,126,813.00	645,090.61	941,171.47	901,565
Ear, Nose &	78.6% incr	195,587.00	109,508.33	95,715.11	-
Throat					
Eye Care	328.4% incr	440,261.00	102,769.95	218,029.30	-
Mortuary	5.4% incr	262,248.00	248,811.00	253,472.41	269,311
Physiotherapy	517.9% incr	207,488.00	33,580.68	163,400.90	152,486
Dialysis	18.8% decr	818,989.00	1,008,281.64	879,302.71	748,219
Others	19.9% incr	481,670.00	401,596.41	422,653.75	-
Total	22% incr	15,832,183.00	12,982,266.79	12,488,758.29	14,161,833

Table 5.6. 1: Revenue Contribution by Sub-BMC / Department / Unit GH¢

Total expenditure at the institution went up by 24.9% in 2019 over the previous year. The expenditure of the institution is grouped under three main categories. Namely, goods and services, compensations and investments. Although the institution recorded 13.9% increase in total revenue for 2019, the revenue target was 88.5% achieved in 2019 compared to 78.9% in 2018. However, the general expenditure of the hospital went up by 24.9% (from GHC18,027,876.43 in 2018 to GHC22,522,456.01 in 2019). In the same light, the expenditure on compensation declined by 40.2% whilst expenditure on Goods and Services went up by 44.6% in 2019. Table 5.6.2 below provides detailed analysis on the institution's expenditure from 2017 to 2019.

	PERF. +/-	2019	2018	2017
Compensation	40.2% decr	1,836,109.80	3,068,541.81	2,274,213.80
Goods and services	44.6% incr	20,686,346.21	14,310,834.61	11,307,226.70
Investment (CAPEX)	-	-	648,500.01	522,788.62
Total	24.9% incr	22,522,456.01	18,027,876.43	14,104,229.11

### 5.7 STATUS OF NHIS CLAIMS AT CCTH

Reimbursement from NHIS has always been a challenge to both the respective service providers and NHIA. The institution over the years is mostly unable to implement a lot of projects due to inadequate funds. As a result, relies heavily on services paid for out-of-pocket and are not under the NHIS to keep the institution operational based on the urgency and priority. In 2019, the number of months outstanding for NHIS reimbursement was 8 months. Over the past four years, the outstanding months owed the hospital by NHIA ranges between 6 to 8 months. This evidently makes it nearly impossible to effectively implement most strategies geared towards improving service outcomes at the institution. Table 5.7.1 below shows the detailed trend analysis.

ITEM	% DIFF	2019	2018	2017	2016	2015
Claims Submitted	21.9% incr	11,734,191.92	9,629,551.55	10,549,108	9,679,184	7,046,767
Claims Paid	21.6% decr	7,367,571.40	9,393,716.11	9,121,870	6,289,301	4,172,737
Outstanding as at Close	52.8% incr	12,643,564.86	8,276,944.34	8,041,109	7,241,822	4,583,583
No. of Month Outstanding	-	8	8	6	8	7

Table 5.7. 1: Status of NHIS Claims	able 5.7. 1: Status of NHIS
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### 5.8 ANALYSIS OF ASSETS AND LIABILITIES

The total asset at the institution as at the end of 2019 was GHC22,560,981.97 as against GHC20,835,916.09 in 2018, with an increase of 8.3%. Also, the total current liabilities which comprise of account payables and trust monies increased significantly by 47.3% (from GHC 5,645,723 in 2018 to GHC 8,313,564.68 in 2019). However, the net asset decreased considerably by 6.2% (from GHC15,190,192.98 in 2018 to GHC 14,247,417.29 in 2019) whereas the accumulates fund brought forward (b/f) increased by 22.7% and the accumulated fund carried over decreased by 6.2% as shown in table 5.8.1 below.

Table 5.8.	1:	Trend	of	Assets	and	Liabilities
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	2018	2019	REMARKS						
ASSETS:									
Non-Current Assets:									
Cash & Cash Equivalent	1,257,996.37	694,206.58	44.8% decr						
Accounts Receivables	8,726,095.52	12,748,013.24	46.1% incr						
Inventories	9,013,519.61	6,002,442.47	33.4% decr						
Total Current	18,997,611.50	19,444,662.29	2.4% incr						
Non-Current									

	2018	2019	REMARKS						
Property, Plant & Equipment	1,838,304.59	3,116,319.68	69.5% incr						
TOTAL ASSETS	20,835,916.09	22,560,981.97	8.3% incr						
LIABILITIES									
Current Liabilities:									
Account Payables	5,606,678.95	822,876.75	85.3% decr						
Trust Monies	39,044.16	89,687.93	129.7% incr						
TOTAL CURRENT LIABILITIES	5,645,723	8,313,564.68	47.3% incr						
Net Assets									
TOTAL NET ASSETS	15,190,192.98	14,247,417.29	6.2% decr						
Financed By									
Accumulated Fund B/F	12,379,659.73	15,190,192.97	22.7% incr						
Surplus /Deficit Recorded	2,810,533.25	942,775.68	66.5% decr						
Accumulated Fund Carried Over	15,190,192.98	14,247,417.29	6.2% decr						

# **CHAPTER SIX**

# **COLLABORATION AND SUPPORT**

#### 6.1 INTRODUCTION

Hospitals periodically collaborate with and receives donations from individuals and organisations, all geared towards improving the quality of care at the institution.

#### **6.2 COLLABORATORS**

Table 6.2.1 provides details of the major collaborators and type of support provided to the institution in 2019.

COLLABORATOR(S)	SUPPORT / CONTRIBUTION
MoH and ROMMEF	Established of the Cape Coast Cancer Registry at CCTH in February 2019
Pharma nova LTD	Setting up of Lamina Flow Centre
German Heart Institute	In Partnership with German Heart Institute for the training of staff on ECOCARDIOGRAPHY
UNDP	Management of Medical Waste project
Obrapa FM, Radio Central, Cape FM, Coastal TV	For health Education
WHO	Malaria Vaccine programme pilot
UCC school of Medical Sciences	Training
University of Plymouth (UK)	Through Operation Hernia Project
Derriford Hospital	Through Operation Hernia
University of San Diego California	Team management in trauma
Stone Brook University	Treating "people with colour"
University of UTAH-	fellowship for ENT consultant and ENT workshop
	(Operation smile Ghana) and
	Capacity Building in ENT and surgical outreach
Operation smile Ghana	Collaborated with them to provide free cleft lip plate surgery
Himalayan Cataract Project -	National Cataract Outreach Programme,
NGO	Collaborated with them to conduct cataract
	screening and surgeries and
	Capacity Building in Eye Surgeries and Eye
	surgical outreach
NACP	Donated high capacity fridge for storage of viral
	Deveted Lie en en feider
GROUP)	Donated Hisense tridge

#### Table 6.2. 1: Collaborator(s) and Supports Received in 2019

# **SECTION 3**

# CHAPTER SEVEN

## **OUT PATIENT SUB-BUDGET MANAGEMENT CENTRE**

#### 7.1 BACKGROUND

The Outpatient Department (OPD) of the institution is the first point of contact for patients/clients entering the hospital. The department provides specialised and general OPD services to its patients and its run by specialists, residents, consultants and medical officers from the other clinical Sub-BMCs in the hospital. The OPD Sub- BMC is managed by a five-member committee consisting of a DDNS, a Business Manager, an Accountant, a Pharmacist and a Family Physician who doubles as the Sub-BMC's Head.

The aim is to promote excellence in efficient and effective quality health care delivery for patients through decentralization. The department in addition to having 8 triaging stations and 2 pharmacies has forty-one (41) office space consisting of 23 consulting rooms, 3 procedure rooms, 7 nursing stations and 8 offices. During the course of the year, the Sub-BMC operationalized the Polyclinic by starting a test ran from 17th December 2019. Table 7.2.1 below provides the list of services provided at the OPD.

#### 7.2 OPD SERVICES

Below are the services provided by Clinics.

NO.	SERVICE	NO.	SERVICE
1	General Medical Clinic	15	General Surgical Clinic
2	Hepatitis B & C Clinic	16	Urological Clinic
3	Gastroenterology Clinic	17	Neurosurgical Clinic
4	Endocrinology Clinic	18	Orthopaedic Clinic
5	Adolescent Clinic	19	ENT Clinic
6	Anaesthesia Clinic	20	Dental & Maxillofacial Clinic
7	Dermatology Clinic	21	Ophthalmology (Eye) Clinic
8	Cardiology Clinic	22	Speech Therapy
9	Diabetes Mellitus Clinic	23	Renal / Dialysis Clinic
10	Asthma Clinic	24	Haematology Clinic
11	Sickle Cell Clinic	25	Physiotherapy
12	General Paediatric Clinic	26	ANC & PNC Clinic
13	Paediatric Clinic	27	Obstetrics & Gynaecology Clinic
14	Retroviral / STI Clinic		

#### Table 7.2. 1: Types of OPD Clinic / Care Provided

#### 7.3 OPD 2019 PERFORMANCE AGAINST CCTH STRATEGIC OBJECTIVES Table 7.3. 1: Summary of OPD 2019 Annual Performance against CCTH Strategic Objectives

2019 ANNUAL OUTCOME AND OUTPUT PERFORMANCE							
CCTH Objective 1: INCREASE THE SCOPE AND IMPROVE THE QUALITY OF SERVICES							
	OPI	D LEVEL					
	Actual Performance Trend				2019 Target	Remark s / % Diff.	
Access and Quality Outcome	2016 Annual	2017 Annual	2018 Annual	2019 Annual			
i. Percentage of clients satisfied with overall services at the institution	-	96.8%	87.3%	97%	-	9.7% incr.	
ii. Patients with health insurance	101,957	109,280	130,557	146,277	-	12% incr.	
iii. Patients without Health insurance	8,111	8,574	27,607	21,779	-	21.1% decr.	
iv. Total OPD Attendance	110,068	117,854	158,164	168,056	-	6.3% incr.	
v. Total Referrals-In	3,443	4,386	4,292	4,447	-	3.6% incr.	
vi. OPD cases seen per doctor	1:1184	1:1030	1:1163	1:1098	-	incr.	
vii. OPD Cases seen per specialist	1:1829	1:1849	1:1418	1:1255	-	incr.	
	01	JTPUTS					
6. Spearheaded operationalization o	f the Polyclin	ic.					
7. Maiden edition of the World Diabetes Day was celebrated at which a total of 104 staffs and 89 non-							
staffs were screened for DM and Hypertension.							
8. Started two specialists' clinics in the afternoons (Paediatric Urology, and Colorectal Surgery).							
9. Conducted two waiting time surveys.							
10. Organized one peer review of the OPD 'up' and 'down' to enhance quality of care.							
1 An average of three health talks	were held w	eekly at all	clinical area	19			
2. Featured 5 times on TV and 10	times on Rac	tio for varie	d health talk	(S			
CCTH OBJECTIVE 3: IMPROVE GOVERNANCE, RESOURCE (HUMAN & FINANCIAL) AND MANAGEMENT SYSTEMS							
3.1 Improve on Governance and M	lanagement	System					
	OPD LEV	/EL OUTP	UTS				
1. Organized one peer review of th	e OPD 'up' a	and 'down' t	to enhance of	quality of ca	re.		
2. Spearheaded operationalization of the Polyclinic							
3.2 Improve on Human Resource and Management System							
OPD LEVEL OUTPUTS							
1. A total of 82 (94.3%) of staff appraised							
3.3 Improve on Finance Resource and Management System							
UPU LEVEL OUTPUIS							
<ol> <li>Account clerks and records are monitored daily to ensure financial compliance and service requests done for insured clients.</li> </ol>							

# OBJECTIVE 4: IMPROVE HEALTH RESEARCH, TEACHING AND EXCELLENCE LEARNING EXPERIENCE

4.1 Improve on Research:

#### **OPD LEVEL OUTPUTS**

- 1. Collaborated with a team of researchers from the UCC to conduct a study on "Dry Eye Disease and Meibomian Gland Dysfunction in A Clinical Sample of Type 2 Diabetes Patients in Ghana"
- 2. Also collaborated with a PhD student to conduct a study on "Perception of Quality of Life Among Persons with Diabetes in Three Selected Hospitals in The Central Region

4.2 Improve on Teaching and Learning:

#### **OPD LEVEL OUTPUTS**

OBJECTIVE 5: INTENSIFY SUPPORT TO THE LOWER LEVEL OF CARE AND SERVICE DELIVERY POINTS

#### **OPD LEVEL OUTPUTS**

1. Home visits to Diabetes Mellitus clients conducted (23 clients visited).

2. OPD service brochure updated and circulated to peripheral facilities to facilitate referrals OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF QUALITY SERVICE

#### **OPD LEVEL OUTPUTS**

1. Painted all consulting rooms and waiting areas with the support of the Hospital Management.

2. A number of equipment and furniture was procured to augment the existing ones.

#### 7.4 SUMMARY OF OPD PERFORMANCE

Generally, OPD attendance for 2019 improved by 6.3% (from 158,164 in 2018 to 168,056 in 2019). Referrals-in went up by 3.6% (from 4,292 in 2018 to 4,447 in 2019). Also, the OPD cases seen per doctor improved from 1:1163 in 2018 to 1:1098 in 2019 and the OPD Cases seen per specialist improved from 1:1418 in 2018 to 1:1255 in 2019. The number of insured OPD clients increased by 12% from 130,557 in 2018 to 146,227 in 2019) while the non-insured clients dropped by 21.1% (from 27,607 in 2018 to 21,779 in 2019). Out of the 37 OPD clinics/services provided at the institution, 8 of them recorded varied decline in attendance. For instance; the general surgical clinic attendance dropped by 18.9% (from 4234 in 2018 to 3433 in 2019) and the sickle cell clinic attendance went down by 25.4% (from 567 in 2018 to 423 in 2019). Over the past four years, the institution continuously recorded rise in the number of people diagnosed with renal condition from 389 in 2016 to 1334 in 2019 and in 2019, the renal clinic attendance went up significantly by 50.2% (from 888 in 2018 to 1334 in 2019). Evidently there is increase in awareness for early reporting and testing. However, there is the need to intensify public health education promote healthy life style by every individual in the community. Similarly, Cardiology clinic attendance increased by 22.8% (from 2,104 in 2018 to 2,583). The absence of a dermatologist during the year under review resulted in the decline of the number of cases seen (i.e. 85% decrease, from 315 in 2018 to 45 in 2019). The colorectal clinic, which started in 2019 recorded a total of 82 cases. Also, the polyclinic which was operationalized in December 2019 to promote access to primary health care recorded a total of 348 cases. Detailed statistical trend analysis on OPD services is provided in figure 7.4.1 and table 7.4.1 to 7.4.2 below.





Table 7.4. 1 OPD Performance under the Key Performance Indicator

	OPD Indicator	2016	2017	2018	2019	Remarks
		Annual	Annual	Annual	Annual	
i.	Total OPD Attendance	110,068	117,854	158,164	168,056	6.3% incr.
ii.	Total Referrals-In	3,443	4,386	4,292	4,447	3.6% incr.
iii.	OPD cases seen per	1:1184	1:1030	1:1163	1:1098	incr.
	doctor					
iv.	OPD Cases seen per	1:1829	1:1849	1:1418	1:1255	incr.
	specialist					
v.	Patients with health	101,957	109,280	130,557	146,277	12% incr.
	insurance					
vi.	Patients without Health	8,111	8,574	27,607	21,779	21.1%
	insurance					decr.

Table 7.4. 2: OPD Service Statistical Performance By Clinic

NO.	CLINICS	2015	2016	2017	2018	2019	REMARKS		
	INTERNAL MEDICINE								
1.	General Medical	16,617	16,232	21,060	17,184	18,142	5.58% incr		
2.	Dermatology	357	330	359	315	45	85.7%		
							decr.		
3.	Asthma	297	511	787	1,036	1,005	3% decr.		
4.	Endocrinology	0	82	125	111	106	4.5% incr.		
5.	Haematology	0	223	298	431	437	1.4% incr		
6.	HIV CLINIC	5,895	5,377	6,068	-	4,913	-		
7.	TB CLINIC	35	42	39	131	361	175.6%		
					(42 -	(31 CCTH	incr.		
					CCTH	Clients)			
					Clients)				
NO.	CLINICS	2015	2016	2017	2018	2019	REMARKS		
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8.	Sickle Cell	135	454	650	567	423	25.4%		
							decr		
9.	Gastroenterology	170	560	690	620	749	20.8% incr		
10.	Cardiology	240	1,590	2,153	2,104	2,583	22.8% incr		
11.	Diabetes	9,201	9,309	9,966	10,636	11,304	6.3%incr		
12.	Hepatitis B	446	940	1,059	1179	1,212	2.8% incr		
13.	Renal Clinic	-	389	849	888	1,334	50.2% incr		
			SURG	ICAL SE	RVICES	1	1		
14.	General Surgery	3,983	4,376	5,702	4234	3433	18.9%decr		
15.	Orthopaedic	1,913	2,223	2,347	2485	2311	7.0%decr		
16.	Uro-Surgery	2,208	2,843	3,275	4102	6119	49.2%incr		
17.	Neuro-Surgery	200	129	312	351	620	76.6%incr		
18.	Plastic Surgery	176	564	601	433	461	6.5%incr		
19.	Anaesthesia	378	943	868	782	894	14.3%incr		
20.	Colorectal	-	-	-	-	82	-		
	DEN	ITAL, EY	E AND E	AR, NOS	SE & THROA	AT (DEENT)			
21.	ENT	5,907	6,080	6,664	6230	8211	31.7 %incr		
22.	Eye	6,600	8,420	9,348	8917	12,078	35.4% incr		
23.	Dental &	4,165	4,294	5,112	4769	5204	9.1% incr		
	Maxillofacial								
			MATE	RNAL H	IEALTH				
24.	OBS.& GYNAE	20,322	15,536	17,547	16,564	17,068	3.04% incr		
		[	CH	IILD HEA					
25.	General	7,690	7,810	8,180	7490	8,666	15.7% Incr.		
	Paediatrics Clinic								
26.	NICU Follow-Up	-	-	-	155	206	32.9% incr		
27.	Paedics Asthma	-	-	-	87	78	10.3% incr		
28.	Paedics Neuro	-	-	-	168	137	18.5%		
	Des dise Devial				00	07	decr		
29.	Paedics Renal	-	-	-	99	97	2% decr		
30.	Paedics Cardio	-	-	-	30	21			
31.	Paediatrics -				205	331	61.5% INCr		
	SICKIE CEII CIINIC				500	664	40 70/		
	Total Paediatric	-	-	-	589	004	12.1%		
	Attendance –						mcr.		
	Allendance =		DEL						
32	Diot Clinic	1 7/3			1265	1224	3.2% Door		
<u>3∠</u> .		150	163	261	301	502	96.7% Incr		
55.	Psychology	130	105	201	501	552	30.7 /0 IIICI.		
3/	Physiotherapy	-	-	9 228	9 579	1 0090	5.3% incr		
35	Sneech Therany	-	-	-	24	68	183.3%		
00.	Cheerin Linerahà		_				Incr		
L							IIIOI		

	OTHER SERVICES								
36.	Polyclinic	-	-	-	-	348	Clinic started in December 2019		
37.	Minor Procedures (Treatment Room)	8,706	9,932	9,218	7464	9280	24% incr		
38.	Weekend & Holiday Clinic	-	362	362	355	358	0.85% incr		

## 7.5 TOP 10 OPD MORBIDITY

Hypertension (12.0%) and Diabetes (7.9%) remained the leading causes of OPD attendance followed by acute eye infection (1.7%) and upper respiratory tract infection (1.7%). From the Illustration in figure 3.3.1 below, prostate cancer (0.9%) which is also increasing at an alarming rate remained at the 8<sup>th</sup> position out of the top 10 OPD morbidities. Cardiac disease, urethral discharge and septicaemia all fell within the least top 20 cases recorded in 2019. This is illustrated in figure 7.5.1 below.





## 7.6 REHABILITATION SERVICES

The hospital in addition to other specialized services provided also provides rehabilitation services namely physiotherapy services, clinical psychology services and Diet therapy services also provides some rehabilitation services. The performance trend of these services is provided below.

REHABILITATION SERVICE	2015	2016	2017	2018	2019	REMARKS
Diet Clinic	1,743	1,417	1,916	1265	1224	3.2% Decr
Clinical Psychology	150	163	261	301	592	96.7% Incr.
Physiotherapy	-	-	9,228	9,579	10771	12.4% incr
Speech Therapy	-	-	-	24	68	183.3% Incr

## Table 7.6. 1: Rehabilitation Services

## 7.6.1 PHYSIOTHERAPY

The physiotherapy department over the past three years has been recording a steady increase in the total number of clients seen. In 2019, the number of clients seen increased by 12.4% (from 9,579 in 2018 to 10,771 in 2019). Similarly, the clients with NHIS also increased by 78% (from 3,958 in 2018 to 7,064). This resulted in an improvement of 115.7% in the NHIS revenue generated by the department in 2019 (from GHC\$4,413.30 in 2018 to GHC\$182,099.12 in 2019). Some of the cases seen in 2019 includes, stroke, lower back pain, and cerebral palsy. Figure 7.6.1.1 to 7.6.1.2 and Table 7.6.1.1 provides details of the analysis.



Figure 7.6.1. 1: Physiotherapy Service Utilization Trend

Stroke is the leading condition seen at the physiotherapy unit followed by Low back pain which remains one of the major concerns to many people as they age. However, there are situations such as lifestyle and wrong posture from work or trauma that could result in low back pain and would require physiotherapy. In 2019, contracture was recorded as the least among physiotherapy cases seen. Generally, the conditions have been fluctuating over the past three years. However, in 2019, out of the 11 key conditions seen at the department, only four of the conditions saw decline. Amputation cases dropped by 19.7% and fractured cases also decreased by 27.7% whilst contracture and other spondylosis equally declined by 42.4% and 17.2% respectively. Figure 7.6.2 and table 7.6.1.1 illustrates the detailed trend analysis of physiotherapy service utilization below.

Figure 7.6.1. 2: Comparative Analysis of Physiotherapy Cases from 2016 to 2019



Table 7.6.1. 1: Comparative Analysis of Physiotherapy Cases from 2016 to 2019

NO.	PHYSIOTHERAPY CONDITIONS	2017	2018	2019	REMARKS
1.	STROKE	2552	2189	2242	2.4% incr.
2.	LOW BACK	1548	1378	1688	22.5% incr.
3.	OTHER SPONDYLOSIS	1539	1336	1106	17.2% decr.
4.	CEREBRAL PALSY	901	750	1326	76.8% incr.
5.	CLUB FOOT	780	615	832	35.3% incr.
6.	CERVICAL SPONDYLOSIS	901	756	800	5.8% incr.
7.	ERB'S PALSY	523	429	600	39.9% incr.
8.	AMPUTATION	148	356	286	19.7% decr.
9.	FRACTURE	300	260	188	27.7% decr.
10.	CONTRACTURE	300	281	162	42.4% decr.

## 7.6.2: CLINICAL PSYCHOLOGY SERVICES

The primary objective of the Clinical Psychology Unit is to provide effective Clinical Psychological Services and Psycho-education to out-patients, in-patient and staff at the Hospital. In 2019, the clinical psychology service attendance went up by 96.7% (from 301 in 2018 to 592 in 2019). Depression, with a total attendance of 257 was the condition seen mostly at the department with 146 and 111 cases occurring among females and males respectively. Also, lifestyle habits such as substance abuse and alcohol dependency which could result in serious health complications were seen in the

department. This calls for the need to intensify the general public on healthy lifestyle which could help to reduce the incidence of non-communicable diseases. Out of the total cases seen in 2019, 308 with varied conditions were females whilst the males 221. Also, Depression remains the leading condition reported among males and females. Figure 7.6.2.1 to figure 7.6.2.2 and Table 7.6.2.1 provides detailed analysis of cases below.

Figure 7.6.2. 1: Trend of Clinical Psychology Service Utilization





Figure 7.6.2. 2: Clinical Psychology Cases seen in 2019 By Gender

Table 7.6.2. 1: Clinical Psychology Cases seen in 2019

LIST OF CASES REPORTED	MALES	FEMALES	TOTAL
Depression	111	146	257
Anxiety	36	39	75
Stress	12	18	30
PTSD/ASD	7	29	36
Suicidal Ideations	13	27	40
Panic Attacks	8	18	26
Substance Abuse	7	3	10
Pain Management	6	12	18
Specific Phobia	5	5	10
Alcohol Dependency	12	3	15
Eating Disorder	1	2	3
Auditory Hallucinations	1	3	4
Low Self -Esteem	2	3	5

## 7.6.3 DIET & NUTRITION SERVICES

The Diet therapy service is aimed at providing nutritional services such as planning therapeutic diet as well as supervise meal preparation. Also, to assess patients' nutritional needs, develop and implement nutrition programmes as well as evaluate and report the results. In 2019, the total number of cases seen at the diet and nutrition department reduced by 3.2% (from 1265 in 2018 to 1,224). Out of the total cases seen, 70.1% (865) were OPD clients. Diabetes Mellitus (27.0%), Hypertension (19.3%), Dysphipernia (13.8%), and Obesity (12.8%) remain the leading conditions seen in the department. The diet and nutrition department, together with other departments, periodically embarks on outreach programs to promote a healthy lifestyle and living among the public. In 2019, the department organised a total of 808 outreaches and also provided 614 education to mothers on lactation management. Figure 7.6.3.1 to figure 7.6.3.2 provides the trend analysis of performance from 2015 to 2019 below.









## 7.7 COLLABORATIONS

- Philanthropist
- Megalife
- Obrapa FM, Radio Central, Cape FM, Coastal TV
- Pharmanova Ltd, Palb Pharmaceuticals, Merck and Megalife Sciences

## CHAPTER EIGHT

## ACCIDENT AND EMERGENCY SUB-BMC

## 8.1 INTRODUCTION

Accident & Emergency Sub-BMC offers 24-hour emergency services to people of the Central Region and beyond. The department uses the colour coding system of triaging to triage all clients to determine the urgency and how a case ought to be managed. The Accident and Emergency as a Sub-BMC was inaugurated on 20th July 2016 together.

# 8.2 A&E SUB-BMC's 2019 PERFORMANCE AGAINST CCTH STRATEGIC OBJECTIVE

Table 8.2. 1: A&E sub-BMC's 2019 Performance Against CCTH Strategic Objectives

2019 ANNUAL OUTCOME AND OUTPUT PERFORMANCE										
CCTH Objective 1: INCR	CCTH Objective 1: INCREASE THE SCOPE AND IMPROVE THE QUALITY OF SERVICES									
ACCIDENT AND EMERGENCY DEPARTMENTAL LEVEL										
Actual Performance Trend 2019										
		Target								
Access and Quality	2016	2017	2018	2019						
Outcome	Annual	Annual	Annual	Annual		_				
i. Average length of stay	-	2.8	4.2%	3.0	-	Decr.				
at the Emergency ward										
	A&	E SUB-BMC	OUTPUT							
1. Utilization of emergency	services fo	or intended p	urpose – 44	% yellow ar	nd above (	same as				
2018). Ultimate target: 1	<u>00%, 2019</u>	target was s	50%							
2. Emergency medication	ward stock:	127% availa	ability (>100	%)						
3. 1270% achieved for procedure capturing. Target was 300%										
4. Conducted mortality aud	dits of all de	ath								
5. Death certificate protoco	ol initiated in	n January 20	19.							
CCTH OBJECTIVE 2: REI	DUCE CON	IMUNICABL	E AND NO	N-COMMUN		DISEASES				
	<u>A&amp;</u>	E SUB-BMC	OUTPUT							
1. Use of disposable gowns	for resusci	tations and p	procedures in	mplemented	<u>d.</u>					
CCTH OBJECTIVE 3: IMP	ROVE GOV	ERNANCE,	RESOURC	E (HUMAN	& FINAN	CIAL) AND				
MANAGEMENT SYSTEMS	5									
3.1 Improve on Governan	ce and Ma	nagement S	system							
	<u> </u>	E SOB-BMC	OUIPUI							
1. Five (5) Sub-BMC meet	ings held									
3.2 Improve on Human Re	esource an	d Managem	ent System							
	<u>A&amp;</u>	E SUB-BMC	; OUTPUT							
1. 8 new medical officers a										
2. Two nurses sponsored f	or specializ	ation								
3.3 Improve on Finance R	esource al	nd Manager	nent Systen	1						
	A&	E SUB-BMC	COUTPUT							

**OBJECTIVE 4: IMPROVE HEALTH RESEARCH, TEACHING AND EXCELLENCE LEARNING EXPERIENCE** 

4.1 Improve on Research:

#### A&E SUB-BMC OUTPUT

4.2 Improve on Teaching and Learning:

#### A&E SUB-BMC OUTPUT

1. Organised training on LHIMS done on 6th Feb 2019 with 15 staff and 27 staff in attendance respectively

2. Refresher Triage training (SATS) conducted for staff

- 3. S.T.A.R.T. and Jump START Triaging workshop organised which saw 32 staff trained
- 4. Airway management training organized in May 2019.
- 5. Cardiopulmonary Workshop and Team Dynamics workshop organized in November, accredited for MDC with 63 participants.
- 6. 27 clinical meetings held
- 7. Continuous teaching and guidance of house officers through emergency care and systems is on-going.
- 8. 38 foreign medical/nursing students and 16 PAs from sister universities taken through Emergency Rotations

OBJECTIVE 5: INTENSIFY SUPPORT TO THE LOWER LEVEL OF CARE AND SERVICE DELIVERY POINTS

#### A&E SUB-BMC OUTPUT

## OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF QUALITY SERVICE

#### A&E SUB-BMC OUTPUT

- 1. New air conditioning and door fixed in resuscitation/procedure room
- 2. Donations received; 3 pulse oximeters, USG machine
- 3. ECG machine procured and 679 ECGs done in 2019.
- 4. 5 Oxygen ports fixed and humidifier bought
- 5. Ten 10 new patient chairs (SIL) acquired
- 6. HDU resuscitation cupboard re-appropriated
- 7. Some airway equipment purchased with SIL (NPA, OPA, laryngoscope accessories)

#### 8.3 TREND OF CASES SEEN AT A&E

A lot of accident and emergency cases are referred to the institution due to its unique location. This results in the continuous rise in A&E cases recorded over the past four years. In 2019, the cases recorded went up by 12.4% (from 15,949 in 2018 to 17,931 in 2019) and the referrals-in the department went up by 29.2% (from 1,419 in 2018 to 1,833 in 2019). The 2019 monthly trend of cases seen fluctuated with highest of cases recorded in the month of November (1803 cases). The mortality rate at the A&E went up from 8.4% in 2018 to 9.6% in 2019 whilst the total cases Brought in Dead (BID) improved by 4.9% (from 102 in 2018 to 97 in 2019). Also, the highest death in 2019 of 56 deaths was recorded in the month of July whilst the lowest of 21 deaths was recorded in February, 2019. In addition, the average length of stay at the A&E improved from 4.2 in 2018 to 3.9 in 2019 as shown in figure 8.3.1 to figure 8.3.3 and table 8.3.1 below.



Figure 8.3. 1:Trend of Cases Seen at A&E

Figure 8.3. 2: Trend of Total Cases Seen At A & E By Months In 2019





Figure 8.3. 3: Three-year Trend Analysis of Deaths at the A&E from 2017 to 2019

Table 8.3. 1: Comparative	Performance	Trend at A&E
---------------------------	-------------	--------------

PARAMETER	2017	2018	2019	REMARKS
Total Cases Seen	12,041	15,949	17,931	12.4% increase
"Admissions"	4,715	4,370	4,513	3.3% increase
Trans in	19	4	1	Increase
Trans Out	3,168	2,993	3,223	7.7% increase
Deaths	398	364	435	19.5% increase
Mortality Rate	8.4	8.4	9.6	Increase
BID	189	102	97	4.9% decrease
Average Length of Stay	2.8	4.2	3.9	Decrease
Procedures	259	85	1,083	Increase
Referrals-in	999	1,419	1,833	29.2% increase

## 8.4 TOP TEN CAUSES OF A&E ADMISSION IN 2019

The A&E department recorded trauma injuries as the highest case forming 10.8% (486) of total cases followed by malaria which represent 8.0% (363) of total cases seen. Hypertensive emergencies accounted for 4.5% (201) of the cases. Also, out of the total 496 trauma injuries recorded in 2019, fracture/dislocation accounted for the highest with total of 153 cases. Table 8.4.1 to Table 8.4.2 provides detailed trend analysis below.

NO.	DIAGNOSIS	NUMBER OF CASES	PERCENTAGE (%)
1	Trauma	486	10.8
2	Malaria	363	8.0
3	Hypertensive Emergency	201	4.5
4	Acute Abdomen	156	3.5
5	Pneumonia/LRTI	132	2.9
6	Gastroenteritis	111	2.4
7	CVA	107	2.4
8	UTI	101	2.2
9	Gastritis/PUD	93	2.1
10	Hematuria	82	1.8
	Other Conditions	2,681	59.4
	Total	4,513	100

## Table 8.4. 1: Top Ten Causes of A&E Admission in 2019

## Table 8.4. 2: Traumatic Conditions Breakdown

NO.	DIAGNOSIS	NUMBER OF CASES
1	Fracture/Dislocation	153
2	Laceration/Abrasion	109
3	Head Injury	121
4	Traumatic Amputation	24
5	Unspecified Trauma	79

## 8.5 EMERGENCY CASES SEEN ACCORDING TO THE ACUITY

Case management at the A&E department utilizes the SATS colour coding system of triaging based on the acuity of disease. Out of all cases triaged in 2019, 7% of the patients fell within Red colour code category, while orange and yellow were 12.5% and 24.3% respectively. Over the years, the A&E continuously expressed with concern the increasing number of patients' falls within the Green zone and who otherwise needed to be seen at the general OPD/Polyclinic. For instance, within 3 years, the patients with Green code increased from 4,594 in 2017 to 9,923 in 2019 and with 55.3% rise compared to 2018. The golden hour in emergencies is very essential in improving the survival chances of patients whose condition could hold on for about 2 hours before been seen. Hence the hospital's effort to operationalize the Polyclinic in December 2019 to mitigate some the situation. However, there is still room for improvement. A detailed trend is provided in figure 8.5.1 to figure 8.5.2 and table 8.5.1 to table 8.5.2 below.



Figure 8.5. 1: Emergency Cases Triaged According to Acuity in 2019

Figure 8.5. 2: Yearly Trend of Emergency Cases Triaged By Acuity (2017 to 2019)



MONTH	COLOUR CODE							
	RED	ORANGE	YELLOW	GREEN	BLUE	TOTAL		
January	91	125	274	827	6	1,323		
February	57	131	260	796	15	1,259		
March	76	149	289	918	6	1,438		
April	90	190	354	729	16	1,379		
May	75	208	357	744	10	1,394		
June	82	17	361	994	3	1,613		
July	95	207	389	894	9	1,594		
August	71	173	353	908	4	1,509		
September	113	212	380	784	10	1,499		
October	193	202	457	762	5	1,619		
November	253	245	478	820	7	1,803		
December	114	229	405	747	6	1,501		
2019 Total	1,310	2,244	4,357	9,923	97	17,931		
	(7.3%)	(12.5%)	(24.3%)	(55.3%)	(0.5%)			

Table 8.5. 1: Monthly Trend of Emergency Cases Triaged By Acuity in 2019

 Table 8.5. 2: Yearly Trend of Emergency Cases Triaged By Acuity (2017 to 2019)

YEAR	COLOUR CODES TRIAGED							
	RED	ORANGE	YELLOW	GREEN	BLUE	TOTAL		
2017	769	2,215	3,587	4,594	876	12,041		
2018	773	1,866	3,676	9,445	189	15,949		
2019	1,310	2,244	4,357	9,923	97	17,931		
	(7.3%)	(12.5%)	(24.3%)	(55.3%)	(0.5%)			

## 8.6 TOP 10 FACILITIES A&E CASES WERE REFERRED FROM IN 2019

The department received referrals from facilities within and outside Cape Coast Metropolis. Out of the top 10 facilities that usually refer cases to CCTH A&E in 2019, UCC Hospital top the list with 147 cases referred-in, followed by Mercy Women Centre with 119 cases and the 10<sup>th</sup> ranked institution is Ewim Polyclinic. This is illustrated in figure 8.6.1 below.



Figure 8.6. 1:Top 10 Facilities A&E Cases Were Referred-From, In 2019

## 8.7 TOP CAUSES OF DEATH AT A&E IN 2019

In 2019, Septic shock accounted for the leading cause of death at the A&E followed by CVA, Anaemia and Renal Failure. Evidently, targeted measures/interventions need to be put in place to improve the survival chances of the clients. Out of the total deaths recorded at the hospital's A&E in 2019, 53 of the deaths occurred less than 6 hours of patients' arrival at the department, 89 of the deaths also occurred within 6 to 24 hours following arrival whilst 99 of the deaths were recorded after the patient spent more than 24hours at the department after several interventions to revive them failed. Again, out of the total deaths, 216 were males whilst 145 were females. The highest death rate at A&E occurred among people in the age range of 46 years to 65 years (122 deaths) whilst lowest death was among children under 5 years (7 deaths). The department implements colour coding system of triaging and these codes guides the decision regarding which patient to attend to first at the emergency department. Figure 8.7.1 and figure 8.7.2 illustrate detailed analysis of 2019 deaths at the A&E below.



Figure 8.7. 1:Top 10 Causes of Death at A&E in 2019

Figure 8.7. 2: Detailed Analysis of Deaths at the A&E in 2019



## CHAPTER NINE

## **DIAGNOSTIC SERVICES SUB-BMC**

## 9.1 INTRODUCTION

The Diagnostic Service activities in the hospital are provided by the following departments;

- 1. Medical Laboratory
  - i. Haematology, Biochemistry, Microbiology services (Bacteriology, Parasitology & Serology)
  - ii. Pathology
- 2. Radiology services (x-ray, CT scan, Ultrasound).

# 9.2 PERFORMANCE OF DIAGNOSTICS SUB-BMC AGAINST CCTH STRATEGIC OBJECTIVES

Table 9.2. 1: Summary of the 2019 Annual Performance of Diagnostics Sub-BMCunder the Strategic Objectives.

2019 ANNUAL OUTCOME AND OUTPUT PERFORMANCE							
CCTH Objective 1: INCREASE THE SCOPE AND IMPROVE THE QUALITY OF SERVICES							
DIAGNOSTICS SUB-BMC LEVEL							
		Actual Performance Trend 2019					
					Target		
Access and Qua	lity 2016	2017	2018	2019			
Outcome	Annu	al Annual	Annual	Annual			
i. Utilisation of labora	atory -	-	78%	62.5%	-		
services							
ii. Total laboratory	159,3	72 266,635	275,329	291,677	-	5.9% Incr.	
Investigation done							
iii. Utilisation of radiol	ogical -	-	79.4%	86.9%	-	Incr.	
services							
iv. Total Radiology	14,28	6 17,342	20,766	20,285	-	2.3% decr.	
investigation done							
v. Availability of non-	drug -	-	95.85%	96.37%		Incr.	
consumables (prox	xy:						
gauze, gloves, syr	inge,						
plaster, cannula,							
catheter, infusion a	and						
cleaning agent)							
	Dia	agnostics Su	ib-BMC Outp	uts			
1. Improvement proje	ects were cond	ucted (Reviev	v of some poli	icies, protoco	ols, SOPs v	were done)	
at the lab			-	-			
2. Implementation of	the Food and I	Drug Authorit	y's baseline a	ssessment re	ecommenc	lations at the	
lab		-	-				
CCTH OBJECTIVE	2: REDUCE O	COMMUNICA	BLE AND NO	ON-COMMU	NICABLE	DISEASES	
	Dia	ignostics Su	b-BMC Outp	uts			
			•				

#### **CCTH OBJECTIVE 3: IMPROVE GOVERNANCE, RESOURCE (HUMAN & FINANCIAL) AND** MANAGEMENT SYSTEMS 3.1 Improve on Governance and Management System **Diagnostics Sub-BMC Outputs** 1. Mortuary re-organization meetings held at the pathology unit 2. Organised regular staff meetings at the pathology unit 3. There were regular laboratory meetings, presentations and continuous professional education at the laboratory unit 3.2 Improve on Human Resource and Management System **Diagnostics Sub-BMC Outputs** 3.3 Improve on Finance Resource and Management System **Diagnostics Sub-BMC Outputs OBJECTIVE 4: IMPROVE HEALTH RESEARCH, TEACHING AND EXCELLENCE LEARNING EXPERIENCE** 4.1 Improve on Research: **Diagnostics Sub-BMC Outputs** 1. The laboratory department assisted/supported KCCR, NOGUCHI and students in conducting research. 2. Pathology department published one paper; > A 6-Year Analysis of Fatal Gunshot Injuries in The Central Region of Ghana 3. Radiology department published five (5) research papers whiles three articles are under peer review 4.2 Improve on Teaching and Learning: **Diagnostics Sub-BMC Outputs** 1. Staff at the laboratory benefitted from training programmes (QMS, TB, Malaria, HIV, Cholera, LIS, Coagulation & Blood Safety, etc.). 2. There were regular laboratory meetings, presentations and continuous professional education at the laboratory department. 3. The laboratory department did presentations on selected topics in other departments and wards 4. Facilitation of seminars/workshops by laboratory staff. 5. One radiologist attended AGM 6. The blood bank unit organised training workshop for staff **OBJECTIVE 5: INTENSIFY SUPPORT TO THE LOWER LEVEL OF CARE AND SERVICE** DELIVERY POINTS **Diagnostics Sub-BMC Outputs** 1. The laboratory department provided diagnostic and treatment monitoring laboratory services to all ART (VL & EID) centres in Central Region as well as GeneXpert and TB Culture & DST. 2. Met blood needs of the hospital over the period and partially provided blood requirements of other facilities in the region. **OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF QUALITY SERVICE Diagnostics Sub-BMC Outputs** 1. Biometric verification entry at the laboratory was repaired. 2. Two (2) class II biosafety cabinets, GeneXpert, MGIT at the laboratory were serviced for the by NTP 3. Three (3) Trolleys at the pathology unit repaired 4. Two (2) Air-conditioners fixed; one (1) at the pathologist's office and one (1) at the mortuary clerk's office. 5. Faulty Toilet institution at the pathology unit fixed 6. Drainage problem fixed at the pathology unit 7. Dry lines provided at the pathology unit

- 8. Honey Comb (Net) fixed at the pathology unit
- 9. Rest room for transitional managers at the pathology department created
- 10. Faulty ridge at the pathology unit repaired
- 11. Contract awarded to expand the Cold room of the mortuary
- 12. Main X-ray entrance door fixed.
- 13. Painting of radiology department

## 9.3 TREND - DIAGNOSTIC INVESTIGATIONS

Over the years, the hospital tried putting in measures in place to improve the capacity of the diagnostics department to provide needed quality services to all clients. This resulted in the continuous increase in laboratory investigations carried out over the past four years and in 2019, the total laboratory investigations done went up by 5.9% (from 275,329 in 2018 to 291,677 in 2019). However, there is fluctuation in the radiology investigations done over the past four years. In 2019 for instance, the institution recorded 2.3% drop in radiology investigations done from 20,766 in 2018 to 20,285 in 2019. In light of that, efforts are still being implemented to improve on the services.



Figure 9.3. 1: Diagnostics Services Trend – 2015 TO 2019

## 9.4 LABORATORY SERVICES

The institution in 2019 introduced 25 new laboratory services (hormones, tumour and infectious disease markers i.e. HIV, HBsAg, HCV confirmatory tests) and also acquired new equipment (Haematology, Urine Chemistry and ELISA automated analyzers) to help improve access to advanced and basic lab investigations without referring to other competing facilities. This resulted in an increase in the laboratory client base by 9.4% (from 64,030 in 2018 to 70,021 in 2019) as compared to the 6.3% decline in 2018. Also, the total number of tests conducted in 2019 also increased by 5.9% (from 275,329 in 2018 to 275,329 in 2019).

Despite the general increase in the test conducted in 2019, there was a significant decrease in some specific laboratory investigations. For instance, the Kidney Function Test (KFT) dropped considerably by 59.7% (from 106, 089 in 2018 to 42,719 in 2019). Also, the Liver Function Test (LFT) decreased slightly by 1.5% (from 93,535 in 2018 to 92,102 in 2019). Similarly, bacteriology investigations went down by 20.8% in the same period (from 5,500 in 2018 to 4,367 in 2019). The department also recorded increment in some of the test. Such as the parasitology and serology investigations went up by 15.7% and 2.4% respectively. Detailed comparative analysis and type of laboratory investigations done is provided from figure 9.4.1 to figure 9.4.8 and table 9.4.1 to table 9.4.2 below.



Figure 9.4. 1: Laboratory Department Client Distribution Trend From 2017 To 2019



Figure 9.4. 2: Biochemistry Trend From 2017 To 2019: - Liver Function Test (LFT), Kidney Function Test (KFT) & Lipid Profile (Lipogram)

Figure 9.4. 3: Biochemistry Investigation Trend from 2017 to 2019





Figure 9.4. 4: Microbiology – Parasitology Trend

Figure 9.4. 5: Microbiology – Bacteriology Trend







Figure 9.4. 7: Microbiology – Serology Trend







The institution over the years identified and liaises with other public laboratory institutions to conduct investigations on suspected cases such as, H1N1, Rubella, Buruli Ulcer etc. In 2019, the number of suspected H1N1 cases increased total of 215 from 89 in 2018. Also, total of 559 and 73 HIVL and EID samples were respectively referred to other laboratory facilities in 2019. The hospital did not record any suspected Rubella and Buruli Ulcer cases in 2019. Details provided in table 9.4.1 below.

TESTS	2016	2017	2018	2019
TB CULTURE (DR, DST)	10	4	13	-
TB CULTURE (LPA)	-	-	9	-
H1N1 (INFLUENZA)	18	256	89	215
RUBELLA	8	7	4	0
BURULI ULCER	-	3 (1)	0	0
HIVL	-	-	-	559
EID	-	-	-	73

Table 9.4. 1: Laboratory Samples Referred to Outside Facilities

THYROID & CA	RDIAC PROFILE	FERTILITY MARKERS		
Test	No. Of	Test	No. Of	
	Investigations		Investigations	
FT3	57	FSH	10	
FT4	57	Prolactin	11	
TSH	78	Progesterone	5	
T3	0	Testosterone	10	
T4	0	Estradiol (E2)	5	
CK-MB	15	ß-HCG (Quantitative)	7	
TROPONIN I	17			
TROPONIN THS	17			
TUMOUR/ ONCO	TUMOUR/ ONCOGENIC MARKERS		IARKERS	
Test	No. Of	Test	No. Of	
	Increase the set in sec.		Investigations	
	Investigations		Investigations	
T-PSA	147	HBsAg (Confirmatory)	0	
T-PSA F-PSA	147 1	HBsAg (Confirmatory) HBsAg (Quantification)	0 0	
T-PSA F-PSA CEA	Investigations14713	HBsAg (Confirmatory) HBsAg (Quantification) HCV (Confirmatory)	0 0 1	
T-PSA F-PSA CEA AFP	Investigations147139	HBsAg (Confirmatory) HBsAg (Quantification) HCV (Confirmatory) HIV (Confirmatory)	Investigations0011	
T-PSA F-PSA CEA AFP CA 125	Investigations           147           1           3           9           8	HBsAg (Confirmatory) HBsAg (Quantification) HCV (Confirmatory) HIV (Confirmatory)	Investigations           0           1           1	
T-PSA F-PSA CEA AFP CA 125 CA 15.3	Investigations           147           1           3           9           8           0	HBsAg (Confirmatory) HBsAg (Quantification) HCV (Confirmatory) HIV (Confirmatory)	Investigations           0           1           1	
T-PSA F-PSA CEA AFP CA 125 CA 15.3	Investigations         147         1         3         9         8         0         ELIS/	HBsAg (Confirmatory) HBsAg (Quantification) HCV (Confirmatory) HIV (Confirmatory)	Investigations           0           1           1	
T-PSA F-PSA CEA AFP CA 125 CA 15.3 Test	Investigations         147         1         3         9         8         0         ELIS/	HBsAg (Confirmatory) HBsAg (Quantification) HCV (Confirmatory) HIV (Confirmatory) A TEST No. Of Investigations	Investigations           0           1           1	
T-PSA F-PSA CEA AFP CA 125 CA 15.3 <b>Test</b> HBsAg	Investigations         147         1         3         9         8         0         ELIS/	HBsAg (Confirmatory) HBsAg (Quantification) HCV (Confirmatory) HIV (Confirmatory) A TEST No. Of Investigations 70	Investigations           0           1           1	
T-PSA F-PSA CEA AFP CA 125 CA 125 CA 15.3 <b>Test</b> HBsAg HCV Antibody	Investigations           147           1           3           9           8           0           ELIS/	HBsAg (Confirmatory) HBsAg (Quantification) HCV (Confirmatory) HIV (Confirmatory) A TEST No. Of Investigations 70 70	Investigations           0           1           1	
T-PSA F-PSA CEA AFP CA 125 CA 125 CA 15.3 <b>Test</b> HBsAg HCV Antibody HIV Antigen/Antibody	Investigations         147         1         3         9         8         0         ELIS/	HBsAg (Confirmatory) HBsAg (Quantification) HCV (Confirmatory) HIV (Confirmatory) A TEST No. Of Investigations 70 70 71	Investigations           0           1           1	

Table 9.4. 2: New Investigations at Lab Departments In 2019

## 9.5 BLOOD TRANSFUSION & BLOOD DONATION

Transfusion of blood and blood product remains essential live saving treatment. Over the past four years, there has been timely demand of blood to improve the survival chances of many patients in critical state generally. In 2019, the hospital recorded a significant rise in the total FFP transfused by 30.0% (from 660 in 2018 to 858 in 2019) whilst recording a decline in both whole-blood transfused by 8.2% (from 5313 in 2018 to 4878 in 2019). Due to the essential nature of blood and blood product to improve the survival chances of many patients, the institution implements various strategies yearly to ensure its continuous and timely availability by encouraging voluntary blood donation, mobile blood donation outreach and enforcing blood transfused replacement system among others.

However, in 2019, the total voluntary blood donors and donors during the mobile blood donation outreaching dropped by 8.9% and 13.8% respectively whilst total replacement donors and walk-in donors went up by 2.7% and 12.6% respectively. Unfortunately, the total unsafe blood recorded also went up significantly by 18.5% (394 in 2018 to 467 in 2019). Evidently, more education and awareness need to be intensified on the importance of blood donation and on healthy living (infection prevention) so that blood donated can be useful. Figure 9.5.1 and figure 9.5.2 as well as table 9.5.1 and table 9.5.5 provides detailed trend analysis below.



Figure 9.5. 1: Blood Transfusion Services from 2017 To 2019

Table 9.5. 1: Trend In Blood Transfusion From 2016 - 2019

INDICATOR	2016	2017	2018	2019	% Diff.
WHOLE BLOOD	4,258	4,901	5,435	5282	2.8%
CROSSMATCHED					decr.
WHOLE BLOOD	3,924	4,229	5,313	4878	8.2%
TRANSFUSED					decr.
FFP TRANSFUSED	570	822	660	858	30.0%
					incr.



Figure 9.5. 2: Blood Donation Trend from 2016 To 2019

Table 9.5. 2: Blood Donation Trend From 2016 - 2019

		% Diff.			
GROUPS	2016	2017	2018	2019	•
VOLUNTARY BLOOD DONORS	-	1988	2197	2001	8.9% decr.
REPLACEMENT/ PREDEPOSIT	4,062	3,509	3,331	3422	2.7% incr.
WALK-IN	192	89	95	107	12.6% incr.
MOBILE SESSION (UNSCREENED)	3,361	1,899	2,196	1894	13.8% decr.
ANC	201	195	129	61	52.7% decr.
UNSAFE BLOOD /DISCARDED	194	435	394	467	18.5% incr.

### Table 9.5. 3: Blood transfused to various Wards in 2019

WARD	TOTAL BLOOD ISSUED	FFP
Accident & Emergency	635	36
Female Medical	341	23
Female Surgical	410	12
Male Medical	331	10

WARD	TOTAL BLOOD ISSUED	FFP
Male Surgical	578	18
Neonatal Intensive Care Unit	128	28
Paediatric Ward	338	
Intensive Care Unit	139	69
Delivery Suite	209	117
Obstetrics & Gynaecology	826	272
ETAT	235	239
Dialysis	197	0
Executive Suite	20	0
Ward Not Indicated	283	14
Out-Stations	168	20
Total	4,876	858

Table 9.5. 4: Details of Blood Products Issued

PLATELETS TRANSFUSION					
WARD / DEPARTMENT	USAGE				
Haematology	28 Units				
Paediatric Ward	16 Units				
Intensive Care Unit	7 Units				
Totals	51 Units				
BLOOD GROUPS TRANSFUSED					
BLOOD GROUP	PERCENTAGE TRANSFUSED				
A	42%				
В	10%				
0	44%				
AB	4%				

## Table 9.5. 5: Reasons for Discarding Blood in 2019

# REASONS FOR DISCARDING BLOOD 1. TTIs 2. Clotted 3. Under bled 4. Expired 5. Transfusion reaction 6. Haemolysed 7. Polycythaemia 8. Presence of visible protein & lipid particles (cloudy plasma)

## 9.6. RADIOLOGICAL SERVICES

The radiology department is one of the departments in need on capacity building to improve on quality service delivery. In 2019, despite the fact that the department recorded increment in the client base by 6.9% (from 16,482 in 2018 to 17,624 in 2019), there was rather a decline in the total radiology investigations carried out by 2.3% (from 20,766 in 2018 to 20,285 in 2019). Evidently, there is room for improvement in order to expand the radiology service to retain the clients. Figure 9.6.1 below provides the comparative trend analysis of radiology service utilisation in the hospital below.



Figure 9.6. 1: Utilisation of Radiology Services (2016-2019)

The hospital over the past four years since the introduction of echocardiography in 2016, there has been measure put in place to ensure sustenance of the service. Despite recording slight fluctuation, there has been a significant increase by 207.5% in 2019 (from 161 in 2018 to 495 in 2019). In the same light, CT Scan and Ultrasound Scan investigations carried out also went up by 17.2% and 12.4% in 2019 respectively. However, the X-ray investigations have been fluctuating and in 2019, it further dropped by 17.3% (from 11813 in 2018 to 9765 in 2019). Figure 9.6.2 and table 9.6.1 below provides a comparative trend analysis on the radiology service utilisation at the institution.



Figure 9.6. 2: Category of Radiology Investigations (from 2016 to 2019)

Table 9.6. 1: Radiology Service Utilization

RADIOLOGY SERVICES	2016	2017	2018	2019	REMARKS
CT SCAN	149	937	1746	2046	17.2% incr.
ULTRASOUND SCAN	7825	7706	7036	7907	12.4% incr.
ECHOCARDIOGRAM	4	187	161	495	207.5% incr.
X-RAY	14286	8745	11813	9765	17.3% decr.

## 9.7 PATHOLOGY SERVICES

In general, the number of procedures performed by the pathology department in 2019 went up by 3.3% (from 1,291 in 2018 to 1,333 in 2019). The cases embalmed in 2019 also increased marginally by 1.7% (from 465 in 2018 to 473 in 2019). Similarly, the total cases generally handled went up by 9.7% (from 585 in 2018 to 642 in 2019). However, the number of autopsies performed declined by 9.5% (from 241 in 2018 to 218 in 2019). The pathology department in 2019 received a total of 1,180 cases (an increase of 65.9% from 2018) from the various wards, the majority of which were received from the A&E. Detailed analysis is provided in figure 9.7.1 and figure 9.7.2 below.



Figure 9.7. 1: Three-Year Trend Analysis of Pathological Services (2016-2019)

Figure 9.7. 2: Pathology Cases Received from the Wards and A&E



## 9.7.1 FINANCIAL RETURNS AT PATHOLOGY DEPT. FROM 2016 TO 2019

As a public owned health hospital, in addition to the general bodies received from within, the institution also receives bodies from the Ghana Police Service within the Central Region and periodically embarks on mass burial when such bodies are not claimed over the period. The institution since 2017 has undertaken the burial of a total of seventy-two (72) unclaimed bodies at a cost of GHC 10, 225.00 as illustrated in figure 9.7.1.1 below.





## CHAPTER TEN

## MATERNAL HEALTH SUB-BMC

## **10.1 INTRODUCTION**

The Obstetrics & Gynaecology (OBGY) Sub-BMC of CCTH is a comprehensive clinical department that provides investigative, treatment and emergency services for a whole range of Obstetric and Gynaecological conditions backed by research. The Sub-BMC covers; O & G Ward, Delivery Suite, Delivery Suite Theatre and Recovery Ward, Antenatal & Postnatal Clinics (ANC & PNC) and Gynaecological Clinic. The Sub-BMC is manned by a management team made up of the Head of Department, a Lead Clinician, DDNS, Business Manager, Pharmacist, and an Accountant. Other consultants and head of various clinical teams support the Sub-BMC.

# 10.2 PERFORMANCE OF MATERNAL HEALTH SUB-BMC AGAINST CCTH STRATEGIC OBJECTIVES

 Table 10.2. 1: 2019 Annual Performance of Maternal Health Sub-BMC Against CCTH

 Strategic Objectives

2040 ANNUAL OUTCOME AND OUTDUT DEDEODMANCE

	2019 ANNOAL OUTCOME AND OUTFUT PERFORMANCE						
C	CTH Objective 1: INCRE	ASE THE S	SCOPE AND	<b>IMPROVE</b>	THE QUA	LITY OF S	SERVICES
	Μ	ATERNAL	HEALTH S	UB-BMC LE	VEL		
		A	ctual Perfo	rmance Trei	nd	2019	Remarks /
_			I		1	Target	% Diff.
Acc	ess and Impact	2016	2017	2018	2019		
		Annual	Annual	Annual	Annual		
i.	Stillbirth rate (/1000LB)	54	35	37	42	-	Incr.
ii.	Total Fresh Still birth	86	53	29	39	-	34.5% Incr.
iii.	Total Macerated Still Birth	71	54	89	87	-	2.2% decr.
iv.	Institutional Maternal mortality ratio (/100,000LB)	149	1335	860	925	-	Incr.
v.	Number of institutional maternal deaths increased by 3.7%	41	41	27	28	50% decr.	3.7% Incr.
vi.	Couple year protection	2,277.6	1507	1,521.6	1,562.5	5% Incr.	2.7% Incr.
		A	ctual Perfo	rmance Trei	nd	2019 Target	
	Access and Quality	2016	2017	2018	2019		
	Outcome	Annual	Annual	Annual	Annual		
i.	Percentage of maternal admissions due to external referrals decreased	-	49%	41.4%	27.2%	-	14.2% decr.
ii.	Nurse and Midwife admission ratio	1:21	1:20	1:20	1:16	-	Decr.
iii.	Total deliveries declined	2,904	3,055	3,160	3,027	5% incr.	4.2% decr.

iv.Delivery to midwife ratio a. (all midwives at the institution)29:129:130:120:1-Decr.v.Caesarean section rate38.1%35.9%46.8%41.2%-Decr.				
ratio a. (all midwives at the institution)a.(all midwives at the institution)b.v.Caesarean section rate38.1%35.9%46.8%41.2%-Decr.				
a. (all movives at the institution)a. (all movives at the institution)v. Caesarean section38.1%35.9%46.8%41.2%-Decr.				
v. Caesarean section 38.1% 35.9% 46.8% 41.2% - Decr.				
rate				
Maternal Health Sub-BMC Outputs				
1. Organised daily clinical teaching/tutorial sessions for the Sub-BMC				
2. Conducted monthly maternal mortality conference – all maternal mortalities audited				
3. Held joint perinatal mortality audits with Child Health				
4. Improved collaboration with Child Health				
6 Enforcement of total nursing care policy and infection prevention control practices				
7 Skin to skin mother and child body contact immediately after delivery				
8 Implementation of the use of WHO safe childbirth checklist and discharge plan				
9. Conducted weekly ward rounds				
10. CCTH – Kybele collaborative training in maternal and safe childbirth and quality improvement	nt			
11. 100% usage of LHIMS platform to provide care				
CCTH OBJECTIVE 2: REDUCE COMMUNICABLE AND NON-COMMUNICABLE DISEASE	S			
Maternal Health Sub-BMC Outputs				
1. Organised two infection prevention and control workshop				
CCTH OBJECTIVE 3: IMPROVE GOVERNANCE, RESOURCE (HUMAN & FINANCIAL) AND MANAGEMENT SYSTEMS				
3.1 Improve on Governance and Management System				
Maternal Health Sub-BMC Outputs				
1. The Sub-BMC held four (4) Management meetings in 2019.				
2. Organized Unit level staff durbars				
3. About 78% of staff appraised				
3.2 Improve on Human Resource and Management System				
3.2 Improve on Human Resource and Management System HOSPITALWIDE LEVEL				
3.2 Improve on Human Resource and Management System         HOSPITALWIDE LEVEL         Actual Performance Trend       2019       Remark         Target       % Dif	's /			
3.2 Improve on Human Resource and Management System         HOSPITALWIDE LEVEL         Actual Performance Trend       2019       Remark         2016       2017       2018       2019         2016       2017       2018       2019         Annual       Annual       Annual       Annual	rs /			
3.2 Improve on Human Resource and Management System         HOSPITALWIDE LEVEL         Actual Performance Trend       2019       Remark         2016       2017       2018       2019         Annual       Annual       Annual       Annual         i.       Doctor to Nurse and midwife ratio       6:1       5:1       4:1       5:1       -       Incr.	rs /			
3.2 Improve on Human Resource and Management System         HOSPITALWIDE LEVEL         Actual Performance Trend       2019       Remark         2016       2017       2018       2019         Annual       Annual       Annual       Annual       Annual         i.       Doctor to Nurse and midwife ratio       6:1       5:1       4:1       5:1       -       Incr.         ii.       Delivery to midwife       -       1:29       1:30       1:20       Decr.	<u>s /</u>			
3.2 Improve on Human Resource and Management System         HOSPITALWIDE LEVEL         Actual Performance Trend       2019       Remark         Mathematical       Actual Performance Trend       2019       Remark         2016       2017       2018       2019         Annual       Annual       Annual       Annual       Annual         i.       Doctor to Nurse and fill       6:1       5:1       4:1       5:1       -       Incr.         ii.       Delivery to midwife ratio       -       1:29       1:30       1:20       Decr.         at the institution)       -       1:29       1:30       1:20       Decr.	<u>s /</u>			
3.2 Improve on Human Resource and Management System         HOSPITALWIDE LEVEL         Actual Performance Trend       2019       Remark         2016       2017       2018       2019         Actual Performance Trend       2019       Remark         2016       2017       2018       2019         Annual       Annual       Annual         i. Doctor to Nurse and 6:1       5:1       4:1       5:1       -       Incr.         ii. Delivery to midwife ratio       -       1:29       1:30       1:20       Decr.         iii. Delivery to midwife at the institution)       -       1:62       1:77       1:75       -       Decr.	<u>s</u> /			
3.2 Improve on Human Resource and Management System         HOSPITALWIDE LEVEL         Actual Performance Trend       2019       Remark         2016       2017       2018       2019         Annual       Annual       Annual       Annual       Annual         i.       Doctor to Nurse and midwife ratio       6:1       5:1       4:1       5:1       -       Incr.         ii.       Delivery to midwife ratio       -       1:29       1:30       1:20       Decr.         iii.       Delivery to midwife ratio       -       1:62       1:77       1:75       -       Decr.	<u>s/</u>			
3.2 Improve on Human Resource and Management System         HOSPITALWIDE LEVEL         Actual Performance Trend       2019       Remark         2016       2017       2018       2019       % Dif         i.       Doctor to Nurse and midwife ratio       6:1       5:1       4:1       5:1       -       Incr.         ii.       Delivery to midwife ratio       -       1:29       1:30       1:20       Decr.         iii.       Delivery to midwife ratio       -       1:62       1:77       1:75       -       Decr.         iii.       Delivery to midwife ratio       -       1:62       1:77       1:75       -       Decr.	<u>s/</u>			
3.2 Improve on Human Resource and Management System         HOSPITALWIDE LEVEL         Actual Performance Trend       2019       Remark         2016       2017       2018       2019         Actual Performance Trend       2019       Remark         Actual Performance Trend       2019       Remark         2016       2017       2018       2019         Annual       Annual       Annual         i.       Doctor to Nurse and midwife ratio       6:1       5:1       4:1       5:1       -       Incr.         ii.       Delivery to midwife ratio       -       1:29       1:30       1:20       Decr.         iii.       Delivery to midwife ratio (i.e. all midwives at the institution)       -       1:62       1:77       1:75       -       Decr.         iii.       Delivery to midwife of the midwives at only the delivery       -       1:62       1:77       1:75       -       Decr.	<u>s/</u>			
3.2 Improve on Human Resource and Management System         HOSPITALWIDE LEVEL         Actual Performance Trend       2019       Remark         2016       2017       2018       2019       Remark         i. Doctor to Nurse and fill for the individe ratio       1:29       1:30       1:20       Decr.         ii. Delivery to midwife ratio       1:29       1:30       1:20       Decr.         iii. Delivery to midwife ratio       1:29       1:30       1:20       Decr.         iii. Delivery to midwife ratio       1:62       1:77       1:75       -       Decr.         iii. Delivery to midwife ratio       1:62       1:77       1:75       -         iii. Delivery to midwife ratio       1:62       1:77       1:75       -       Decr.         iii. Delivery to midwife ratio       -       1:62       1:77       1:75       -	<u>s /</u>			
3.2 Improve on Human Resource and Management System         HOSPITALWIDE LEVEL         Actual Performance Trend       2019       Remark         Actual Performance Trend       2019       Remark         2016       2017       2018       2019         Annual       Annual       Annual         in Colspan="6">Colspan="6">Coutputs         in Colspan="6">Coutputs         in Colspan="6">Coutputs         in Colspan="6">Coutputs	<u>s/</u>			
3. About 78% of staff appraised         3.2 Improve on Human Resource and Management System         HOSPITALWIDE LEVEL         Actual Performance Trend       2019       Remark         2016       2017       2018       2019       Annual       Manual       Manual         i.       Doctor to Nurse and midwife ratio       6:1       5:1       4:1       5:1       -       Incr.         ii.       Delivery to midwife at the institution)       -       1:29       1:30       1:20       Decr.         iii.       Delivery to midwife at the institution)       -       1:62       1:77       1:75       -       Decr.         iii.       Delivery to midwife at the institution)       -       1:62       1:77       1:75       -       Decr.         iii.       Delivery to midwife at the institution)       -       1:62       1:77       1:75       -       Decr.         iii.       Delivery to midwife at appraised       -       1:62       1:77       1:75       -       Decr.         iii.       Delivery to midwife at appraised       -       1:62       1:77       1:75       -       Decr.         iii.       Delivery to midwife at appraised       -	<u>s/</u>			
3. About 7878 of stall appraised         3.2 Improve on Human Resource and Management System HOSPITALWIDE LEVEL         Actual Performance Trend       2019 Target       Remark % Diff         2016       2017       2018       2019         1       2016       2017       2018       2019         1       Doctor to Nurse and midwife ratio       6:1       5:1       4:1       5:1       -         1       Delivery to midwife ratio (i.e. all midwives at the institution)       -       1:29       1:30       1:20       Decr.         1       Delivery to midwife ratio (i.e. productivity of the midwives at only the delivery suite)       -       1:62       1:77       1:75       -       Decr.         1. About 78% of staff appraised       33 Improve on Finance Resource and Management System       Maternal Health Sub-BMC Outputs       1       1	<u>s /</u>			

## OBJECTIVE 4: IMPROVE HEALTH RESEARCH, TEACHING AND EXCELLENCE LEARNING EXPERIENCE

4.1 Improve on Research.
Maternal Health Sub-BMC Outputs
1. 1 Abstracts published
Tubal Pregnancy: A Case Report Agbeno EK1. Boateng AS2. Kwakve A2
1Department of Obstetrics and Gynaecology, University of Cape Coast, Cape Coast,
Ghana; 2Department of Obstetrics and Gynaecology, Cape Coast Teaching hospital,
Cape Coast, Ghana
4.2 Improve on Teaching and Learning
4.2 Improve on reaching and Learning:
Maternal Health Sub-BMC Outputs
1. Nine (9) residents currently enrolled in residency training; six (6) in CCTH and three (3) outside CCTH
2. Training of Medical Students and other Allied Health Students
3. Training of residents on external rotation from other institutions three (3)
OBJECTIVE 5: INTENSIFY SUPPORT TO THE LOWER LEVEL OF CARE AND SERVICE DELIVERY POINTS
Maternal Health Sub-BMC Outputs
1. Continuous support to lower facilities on phone.
<b>OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY</b>
OF QUALITY SERVICE
Maternal Health Sub-BMC Outputs
1. Used service Improvement Levy (SIL) to:
Acquire sonicaids 8, pulse oximeters 7, nebulizers 1, BP apparatus 16, thermometers 20,
table top autoclaves 2, examination lamps 3, fridge for medicine 2, bunk bed mattresses 4
and other equipment/instruments.
Received 1 printer and supplies
Carried out maintenance works with support of Technical Services

## 10.3 OPD ATTENDANCE FOR MATERNAL HEALTH

Over the past 5 years OBGY general attendance have been fluctuating. In 2019, the department recoded marginal improvement in the clients' attendance in ANC, and Gynae. Clinics by 4.8% and 4.6% respectively. However, the PNC attendance dropped by 3.2% in the same period. Also, the percentage of maternal admissions due to external referrals decreased from 41.4% in 2018 to 27.2% in 2019. Detailed trend analysis is provided in figure 10.3.1 and table 10.3.1 below.




Table 10.3. 1: OPD Attendant for Maternal Health (2015 TO 2019)

	2015	2016	2017	2018	2019	REMARKS
ANC	8117	8434	10,141	8,991	9,419	4.8%↑
PNC	2430	2750	3,314	3,495	3,384	3.2%↓
Gynae	4761	4075	4,092	4,078	4,265	4.6%↑
TOTAL	15,308	15,259	17,547	16,564	17,068	<b>3.0%</b> ↑
Percentage of maternal admissions due to external referrals decreased		-	49%	41.4%	27.2%	14.2% decr.

#### **10.4 MATERNAL IN-PATIENT STATISTICAL PERFORMANCE**

The Maternal Health Sub-BMC over the last four years have been recording a steady increase in the total number of admissions and in 2019, the admission went up by 3.6% (from 1,963 in 2018 to 2,033 in 2019) whilst the percentage of admissions due to external referrals dropped from 41.4% in 2018 to 27.2%. The average length of stay, as well as the percentage bed occupancy also went up to 31.0 and 4.5 respectively in 2019. Details analysis provided in table 10.4.1 below.

Table 10.4. 1: Maternal In-Patient Statistics

Indicator	2016	2017	2018	2019	Remarks
Admission	1713	1799	1963	2033	3.6% incr.
Discharges	2475	2653	2744	2541	7.4% decr
Trans-In	1364	1484	1473	1009	31.5% decr
Trans-Out	598	635	682	617	9.5% decr

Indicator	2016	2017	2018	2019	Remarks
Referrals	1023	845	-	976	29.9% decr
Average Daily Occupancy	33	29	28.6	31.0	Increased
% Bed Occupancy	73.3	65.2	63.5	68.8	Increased
Average Length of Stay	4.8 days	4.0 days	3.8 days	4.5days	Increased

### **10.5 TOP 10 OBSTETRIC CONDITIONS**

Over the past years (2017 to 2018), Hypertensive disorders in pregnancy accounted for the leading cause of obstetric admission at the institution. However, in 2019, UTI in Cyesis was recorded as the leading obstetric condition seen and forms 16.2% out of total obstetric cases. Meanwhile, Prolonged Pregnancy / Post term (12.5%), PROM/ PPROM (12.28%), Anaemia in Pregnancy (11.68%), Gestational Diabetes & Diabetes in Pregnancy (10.49%) and Hypertensive Disorders of Pregnancy (9.58%), to continue to account for the top 6 obstetric conditions admitted at the institution. Evidently, some of these conditions could be controlled with lifestyle modification and an indication for health education to be intensified in the public and at the clinics. Table 10.5.1 below provides a comparative trend on the top 10 obstetric conditions admitted from 2016 to 2019.

	2016		2017		2018	018 2019		9
C	CONDITION	%	CONDITION	%	CONDITION	%	CONDITION	%
1.	Hypertensive Disorders of Pregnancy	9.1%	Hypertensive Disorders of Pregnancy	5.3%	Hypertensive Disorders of Pregnancy	22.5%	UTI in CYESIS	16.2% (54)
2.	Postdatism	4.8%	Postdatism	3.4%	PROM / PPROM	4.6%	Prolonged Pregnancy / Post term	12.5% (42)
3.	Anemia in Cyesis	3.8%	Latent Phase of Labor	2.1%	Gestational Dm / Dm In Pregnancy	4.6%	PROM / PPROM	12.28% (41)
4.	Malaria in Cyesis	2.3%	UTI In CYESIS	1.6%	Prolonged Pregnancy / Post term	3.6%	Anaemia in Pregnancy -	11.68% (39)
5.	UTI in CYESIS	2.2%	Severe Anaemia / Anaemia	1.5%	UTI In CYESIS	2.7%	Gestational Dm / Dm In Pregnancy	10.49% (35)
6.	PROM	1.9%	Malaria in CYESIS	1.1%	PPH	2.6%	Hypertensive Disorders of Pregnancy	9.58% (32)
7.	APH	1.6%	PROM	1.1%	Anaemia in Pregnancy	2.2%	Pre – Term Labor – 30	8.98% (30)
8.	IUFD	1.6%	PPH	0.8%	Pre – Term Labor	2.2%	PPH - 24 (7.19%)	7.19% (24)
9.	PPH	1.0%	IUFD	0.6%	IUFD	1.9%	Hyperemesis Gravidarum	6. <del>29%</del> (21)

## Table 10.5. 1: Top 10 Obstetric Conditions

2016		2017		2018		2019	
CONDITION	%	CONDITION	%	CONDITION	%	CONDITION	%
10. Gestational Diabetes	0.6%	APH	0.5%	Hyperemesis Gravidarum	1.6%	IUFD	4.79% (16)

## **10.6 MATERNAL HEALTH - KEY PERFORMANCE INDICATORS**

Over the past 5 years (2014 to 2018), total deliveries recorded at the institution consistently went up. However, in 2019, it dropped by 4.2% (from 3,160 in 2018 to 3,017 in 2019). There are 3 main forms of delivery, Spontaneous Vaginal Deliveries (SVD) rate went up marginally from 52.7% in 2018 to 57.4% in 2019 whilst Assisted Spontaneous Vaginal Delivery also increased from 0.4% in 2018 to 0.9% in 2019. On the other hand, the hospital recorded an improvement in the Caesarean Sections (C/S) rate from 46.8% in 2018 to 3,120 in 2019. The total babies delivered in 2019 declined by 4.2% (from 3,256 in 2018 to 3,120 in 2019) and the total live births also dropped by 4.6% (from 3,138 to 2,994 in 2019). Figure 10.6.1 and 10.6.2 below provides a trend analysis of both total deliveries and forms of delivery trend over the past four years.



Figure 10.6. 1: Trend in Number of Deliveries (2016 – 2019)

Figure 10.6. 2: Forms of Delivery (2016 – 2019)



Still births rate remains a challenge to the institution and measures were put in place over the years to reduce the rate. In 2019, still birth rate went up from 36/1000LB to 40/1000LB. Total Macerated still birth which continuously went up saw a marginal reduction 2.2% (from 89 deaths to 87 deaths in 2019) although still being far from acceptable. Interesting, the fresh still birth which saw a reduction in the previous year rather went up significantly in 2019 by 34.5% (from 29 deaths in 2018 to 39 deaths in 2019). There is still the need to apply a holistic approach in addressing this great concern and improve the survival chances of both mothers and their babies when they access care institution with the support of all stakeholders. Detailed trend analysis is illustrated in figure 10.6.3 to figure 10.6.5 and table 10.6.1 below.



Figure 10.6. 3: Maternal Health Key Performance Indicators - Category A

Figure 10.6. 4: Maternal Health Key Performance Indicators - Category B





Figure 10.6. 5: Maternal Health Key Performance Indicators – Category C

Table 10.6. 1: Maternal Health Key Performance Indicators

INDICATOR	2014	2015	2016	2017	2018	2019	Remarks
Deliveries	2,618	2,854	2,904	3,055	3,160	3,027	4.2% Decr
Number of babies	2,730	2,945	3,037	3,179	3,256	3120	4.2% Decr
Live births	2,590	2,789	2,870	3,072	3,138	2994	4.6% Decr
Total Still births	140	156	161	107	118	126	6.8% incr.
	FSB-65	FSB-96	FSB - 76	FSB - 53	FSB – 29	FSB=39	34.5% incr.
	MSB-75	MSB-60	MSB - 85	MSB - 54	MSB - 89	MSB=87	2.2% decr
% Caesarian Section	35%	34%	38%	40%	47	41.2%	12.0% Decr.
Still birth rate per 1000 LB	54	56	56	34	36	40	Incr.
Number of maternal deaths	20	31	41	41	27	28	3.6% incr.
Maternal mortality ratio per 100,000 LB	772	1,111	1,428	1,335	860/100,000 Live Births	958	Incr.
ANC REGISTRANTS	568	630	716	748	794	802	6.8 incr.
ANC ATTENDANCE	7,332	7,982	8,567	10,141	8,991	9,419	5.2 incr.

# 10.7 TOP 10 GYNAECOLOGY CONDITIONS

Uterine fibroid remains the top obstetric condition presented at the institution despite drastic drop in cases by 82.5% in 2019 (from 863 in 2018 to 151 in 2019). Another concern is high incidence of Ectopic pregnancy with a total of 80 cases accounted for the second leading obstetric condition. Ectopic Pregnancy (16%), Abnormal uterine and vaginal bleeding (12.4%), Threatened abortion (11.4%), Incomplete abortion (10%), Pelvic Inflammatory Disease (7.2%), Missed abortion (6.8%), Ovarian Tumours (3.6%) as well as Utero-vaginal prolapse (2.4%) remains a great concern to the institution as they accounted for the leading top 10 Gynae. Conditions admitted in 2019.

Table 10.7.1 provides the top 10 Gynecological condition attended to at the institution between 2018 and 2019.

2018		2019			
CONDITIONS	NO. OF CASES	CONDITIONS	NO. OF CASES		
Uterine Fibroids	863	Uterine Fibroids	151 (30.2%)		
Pelvic Inflammatory Disease	503	Ectopic Pregnancy	80 (16%)		
Infertility	281	Abnormal uterine and vaginal bleeding	62 (12.4%)		
Ovarian cyst	239	Threatened abortion	57 (11.4%)		
Ectopic Pregnancy	207	Incomplete abortion	50 (10%)		
Abnormal uterine and vaginal bleeding	169	Pelvic Inflammatory Disease	36 (7.2%)		
Threatened abortion	146	Missed abortion	34 (6.8%)		
Incomplete abortion	128	Ovarian Tumours	18 (3.6%)		
Missed abortion	92	Uterovaginal prolapse	12 (2.4%)		
Uterovaginal prolapse	77				

Table	10.7.	1:	Тор	10 G	vnaeco	loav	Conditions
<i>i</i> a. <i>bi</i> 0		••			<i>,</i>	~ 37	00110110110

#### **10.8 OBS & GYNAE SURGERIES PERFORMED**

Caesarean section (C/S) continues to be the leading obstetric surgical procedure conducted at the whilst Myomectomy also the leading Gynecological surgery carried out at the institution. In 2019, the total C/S performed went up marginally by 0.23% (1261 in 2018 to 1264 in 2019). High C/S in teaching hospitals still remains a general concern among key stakeholders. Interestingly, the hospital recorded a significant reduction in total Hysterectomy performed from 6 in 2018 to 3 cases in 2019. Among the Gynecological major surgeries performed in 2019, Myomectomy was the highest. However, there was a marginal dropped in the myomectomy cases in 2019 by 4.3% (from 69 in 2018 to 66 in 2019). Laparotomy surgeries on account of ectopic pregnancies went up by 10.8% (from 65 in 2018 to 72 in 2019). Also, the number of women that undergone Total Abdominal Hysterectomy also increased by 25%. Further study might help to

understand the continuous prevalence of fibroid among Ghanaian women. Detailed trend analysis on the OBS and Gynae surgeries performed provided in table 10.8.1 below.

TYPE OF	2016	2017	2018	2019	Remarks
OPERATIONS					
Ν	IAJOR OB	STETRIC REL	ATED SURG	ERIES	
Caesarean Section	1014	1194	1261	1264	0.23% incr
Hysterectomy	5	14	6	3	50% decr
Sterilization	1	0	23	-	-
Laparotomy For;					
Ectopic	44	76	65	72	10.8% incr
Ovarian	2	1	18	-	-
Cyst					
Exploratory	10	19	24	30	25% incr
Others	12	0	7	-	-
Total Major	1,088	1,304	1,404	1,423	1.4% incr
Obstetric					
Operations					
	MAJ	JOR GYNAE S	SURGERIES		
Myomectomy	119	67	69	66	4.3% decr
ТАН	35	51	50	53	6% incr
Vaginal	14	11	4	5	25% incr
Hysterectomy					
Cervical cerclage	4	3	2	7	250% incr
Fistula repair	-	-	-	1	-

 Table 10.8. 1: Major Obs & Gynae Surgeries Performed in 2019

# **10.9 MATERNAL MORTALITY**

In 2019, Majority (58.6%) of the Maternal deaths were recorded within 48 hours of stay at the institution whilst 41.4% occurred after 48hours. Also 89.7% of the deaths were cases referred from other peripheral facilities. Generally, maternal mortality remains a great concern to the institution and every year, measures put in place to help reduce the death. Some of these measures reflected in the significant decrease recorded in 2018. Unfortunately, the deaths went up marginally in 2019 again by 3.6% (from 27 in 2018 to 28 in 2019) and the maternal mortality ratio also increased from 854/100,000LB in 2018 to 958/100,000LB in 2019. Targeted measures need to be implemented towards sustenance of gains even us performance in improved upon as well. Detailed trend analysis of the maternal mortality is illustrated in table 10.9.1 and figure 10.9.1 to 10.9.2 below.

Table 10.9. 1: Duration of Maternal Deaths in 2019

LENGTH OF STAY	<48 HRS	≥ 48 HRS	REFERRALS	NON- REFERRALS
	58.6%	41.4%	89.7%	10.3%

Figure 10.9. 1: Trend in Maternal Mortality Ratio / 100,000 Live Births (2016-2019)



Figure 10.9. 2: Trend of Maternal Mortality Death (2015 to 2019)



## **10.10 TOP CAUSES OF MATERNAL MORTALITY**

Haemorrhage/severe Anaemia, hypertensive disorders in pregnancy and Sepsis remain the leading causes of maternal mortality over the years at the institution and a great concern to all key stakeholders. Surprisingly, pulmonary embolism which ranked 1<sup>st</sup> among the top causes of maternal mortality in 2018 ranked 4<sup>th</sup> in 2019. These conditions are preventable or manageable with the right support system and timely intervention and evidently, there is room for improvement to increase the survival chances of these women at all health care levels during pregnancy and delivery. A comparative analysis is provided in table 10.10.1 below.

201	17	20	18	2019	
Condition	Percenta ge	Condition	Percenta ge	Condition	Percentage
Hemorrhag e	34.1%	Pulmonary Embolism	33.3%	Haemorrhage / Severe Anaemia	39.29% (11)
Hypertensiv e Disorders of Pregnancy	29.3%	Hemorrhag e	29.63%	Hypertensive Disorders of Pregnancy	32.14% (9)
Sepsis	22.0%	Hypertensi ve Disorders of Pregnancy	29.63%	SEPSIS	17.86% (5)
Others	14.6%	Sudden Cardiac Death (Pm Diagnosis)	7.6%	Pulmonary Embolism	7.14% (2)
				Sudden Cardiac Death (Pm Diagnosis	3.57% (1)

Table 10.10	. 1: Тор	Causes	of Maternal	Mortality
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Out of the total 28 maternal deaths recorded in 2019, 85.7% (24) of the total cases were referrals from peripheral facilities whilst the remaining 4 deaths were from within the hospital (in-house). Capacity building at the primary and secondary level facilities is cardinal to the reduction of mortalities especially, considering the leading causes of maternal mortalities. The ability of the medical team to refer patients timely is as important as the prompt attention the patient ought to receive on arrival. There is the need for commitment by all stakeholders with shared responsibilities geared towards improving the survival chances of these women especially during emergencies. Details analysis of referral centers provided in table 10.10.2 below.

REFERRAL INSTITUTION IN 2018	NO	REFERRAL INSTITUTION IN 2019	NO
Saltpond Municipal Hospital	3	Mercy Women's Clinic – Mankessim	3
Mercy Women's Clinic - Mankessim	3	Winneba Trauma and Specialist Centre	3
Effia Nkwanta Regional Hospital, Takoradi	2	Cape Coast Metropolitan Hospital	3
Our Lady of Grace Hospital, Asikuma	2	Saltpond Municipal Hospital	2
Adisadel Urban Health Centre, Cape Coast	1	UCC Hospital	2
Abura Dunkwa District Hospital	1	Moree Health centre	2
Apinto Government Hospital, Takoradi	1	Ewim Polyclinic	1
Baiden Ghartey Memorial Hospital, Cape Coast	1	Elmina Urban Health Center	1
Essikado Government Hospital, Takoradi	1	Atobiase Community Clinic	1
Fynba Clinic	1	St. Luke's Catholic Hospital, Apam	1
Moree Health Centre	1	St. Francis X'avier	1
Nagel Memorial Adventist	1	Ankaful	1
Oda Government Hospital, Akim - Oda	1	ССТН	4
Sanford World Clinic, Cape Coast	1	Unknown facilities	3
Swedru Government Hospital	1	-	
UCC Hospital	1	-	
UQ Hospital	1	-	
Winneba Trauma and Specialist Centre	1	-	
TOTAL (REFERRALS)	24	TOTAL (REFERRALS)	24
ССТН	3	ССТН	4
GRAND TOTAL	27	GRAND TOTAL	28

# Table 10.10. 2: Referral Facilities of The Maternal Deaths 2019

# CHAPTER ELEVEN

# **CHILD HEALTH SUB-BMC**

#### 11.1 BACKGROUND

Child health directorate is one of the clinical Directorates of Cape Coast Teaching Hospital. It was inaugurated on the 20th of July 2016. Children up to age of 16 years are admitted for various reasons- surgical, Orthopaedic, Eye, ENT and babies as well as medical cases. The directorate also has a Special Care Baby Unit which serves as a referral Centre for newborns in Central and Western Regions and lower parts of Ashanti. The Management team of the Sub-BMC comprises the Head, the DDNS, Business Manager, Accountant, and a Pharmacist.

# 11.2 CHILD HEALTH SUB-BMC'S 2019 PERFORMANCE AGAINST CCTH STRATEGIC OBJECTIVES

 Table 11.2. 1: Child Health Sub-BMC's 2019 Annual Performance Against CCTH

 Strategic Objectives

2019 ANNUAL OUTCOME AND OUTPUT PERFORMANCE											
CCTH Objective 1: INCREASE THE SCOPE AND IMPROVE THE QUALITY OF SERVICES											
Child Health Sub-BMC LEVEL											
		Actual Perfo	nd	2019 Target	Remar ks / % Diff.						
Access and Impact	2016 Annual	2017 Annual	2018 Annual	2019 Annual							
xlviii. Low birth rate	16.2%	13%	13.5%	16.1%	-	Incr.					
xlix. Stillbirth rate (/1000LB)	54	35	37	42	-	Incr.					
I. Total Fresh Still birth	86	53	29	39	-	34.5% Incr.					
li. Total Macerated Still Birth	71	54	89	87	-	2.2% decr.					
lii. Institutional infant mortality rate (/1000LB)	82	65	69	91	-	Incr.					
liii. Institutional neonatal mortality rate (/1000)	72	59	63	80	-	Incr.					
liv. Number of institutional neonatal deaths	207	180	197	239	5% decr	21.3% Incr.					
Iv. Number of Institutional infant death	236	201	216	272	-	25.9% Incr.					
<pre>Ivi. Under-five mortality rate   (/1000LB)</pre>	87	71	77	101	-	Incr.					
Ivii. Institutional under-five mortality	250	219	242	301	-	24.4% Incr.					
	L A	Actual Perfo	nd	2019 Target							
Access and Quality Outcome	2016 Annual	2017 Annual	2018 Annual	2019 Annual							
Iviii. Percentage of neonatal admissions due to external referrals	-	28%	26.1%	27.2%	-	1.1% incr.					

2019 ANNUAL OUTCOME AND OUTPUT PERFORMANCE									
Child Health Sub-BMC Outputs									
1. Successfully celebrated World Prematurity Week									
CCTH OBJECTIVE 2: REDUCE COMMUNICABLE AND NON-COMMUNICABLE DISEASES									
Child Health Sub-BMC Outputs									
<ol> <li>Carried out educational talks on radio and TV stations (Cape, ATL, Obrapaa FM, Radio Central, Coastal TV</li> </ol>									
<ol> <li>Celebrated World Prematurity Week in November 2019. Organised health seminar, float/walk and durbar</li> </ol>									
CCTH OBJECTIVE 3: IMPROVE GOVERNANCE, RESOURCE (HUMAN & FINANCIAL) AND MANAGEMENT SYSTEMS									
3.1 Improve on Governance and Management System									
Child Health Sub-BMC Outputs									
1. 4 sub-BMC meetings held									
2. 1 Staff durbar held (55 staff attended)									
3.2 Improve on Human Resource and Management System									
Child Health Sub-BMC Outputs									
1. Human Resource development – Further Studies with Ghana College of Midwifery and Nursing									
<ul> <li>7 nurses – Paediatric associate programme</li> </ul>									
<ul> <li>3 nurses – NICU associate programme</li> </ul>									
<ul> <li>1 nurse – NICU membership</li> </ul>									
1 nurse – Critical Care Nursing									
1 nurse – Midwifery									
3.3 Improve on Finance Resource and Management System									
Child Health Sub-BMC Outputs									
-									
OBJECTIVE 4: IMPROVE HEALTH RESEARCH, TEACHING AND EXCELLENCE LEARNING EXPERIENCE									
4.1 Improve on Research:									
Child Health Sub-BMC Outputs									
1. Published four collaborative researches;									
<ul> <li>Oppong SA, Bakari A, Bell AJ, Bockarie Y, Adu JA, Turpin CA, Obed SA, Adanu RM, Moyer CA. (2019) Incidence, causes and correlates of maternal near-miss morbidity: a multi-centre cross-sectional study. BJOG 2019; 126:755–762.</li> </ul>									
<ul> <li>Bakari A, Bell AJ, Oppong SA, Bockarie Y, Wobil P, Plange-Rhule G, Goka BQ, Engmann CM, Adanu RM and Moyer CA (2019) Neonatal near-misses in Ghana: a prospective, observational, multi-center study. BMC Pediatrics (2019) 19:509. <u>https://doi.org/10.1186/s12887-019-1883-y</u></li> </ul>									
<ul> <li>Hayfron-Benjamin A, Angela AD, Ernestina A, Bockarie Y, Baidoo I, Ayisi Addo S, and Obiri Yeboah, D. (2019) Psychosocial Assessment of Ghanaian Adolescents living with HIV using the HEADSSS assessment approach: A mixed methods study. Int J HIV AIDS Res. 2019; 2(1):25-32.</li> </ul>									
<ul> <li>Bakari A, Bell AJ, Oppong SA, Bockarie Y, Wobil P, Plange-Rhule G, Goka BQ, Engmann CM, Adanu RM and Moyer CA (2019) Neonatal near-misses in Ghana: a prospective, observational, multi-center study. BMC Pediatrics (2019) 19:509. <u>https://doi.org/10.1186/s12887-019-1883-y</u></li> </ul>									

4.2 Improve on Teaching and Learning:

Child Health Sub-BMC Outputs								
1. Paediatric echocardiographic training done by a German Heart Team led by Prof. Yankah								
OBJECTIVE 5: INTENSIFY SUPPORT TO THE LOWER LEVEL OF CARE AND SERVICE								
DELIVERY POINTS								
Child Health Sub-BMC Outputs								
1. Feedback sent to referral sites								
2. GHS mentorship and supervision								
<ul> <li>2 referral sites visited - Saltpond and UCC Hospitals</li> </ul>								
<ul> <li>Wrap up of GHS fixed award new-born project supported by Systems for Health, USAID</li> </ul>								
<b>OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY</b>								
OF QUALITY SERVICE								
CHILD HEALTH SUB-BMC								
<ol> <li>Received the following equipment;</li> </ol>								
2 incubators								
2 phototherapy machines								
1 cardiac monitor								
Pulse oximeters and 1 suction machine								

#### 11.3 CHILD HEALTH SERVICES

The hospital over the years tried to institute measure to increase access to Paediatrics general and specialist services at the institution. This reflected in the total number of Paediatrics OPD clinic attendance which saw an increment of 15.7% in 2019 (from 7,490 in 2018 to 8,666 in 2019) whilst the total Paediatrics specialist OPD clinic attendance also increased by 12.7% (from 589 in 2018 to 664 in 2019). Some of the Paediatrics specialist services being provided includes; Paedics-Neuro, Paedics-Asthma, Paedics-Renal, Paedics-Cardiology clinic etc. In 2019, the percentage of neonatal admissions due to external referrals also went up from 26.1% in 2018 to 27.2% in 2019. Detailed trend analysis is provided in figure 11.3.1 and table 11.3.1 below.



Figure 11.3. 1: Paediatrics OPD Attendance From 2015 to 2019

#### Table 11.3. 1: Child health OPD Clinic Attendance Trend

Indicator	2015	2016	2017	2018	2019	% Diff.
Percentage of neonatal admissions due to external referrals		-	28%	26.1%	27.2%	Incr.
General Paediatrics OPD	7,690	7,810	8,180	7490	8,666	15.7% Incr.
NICU Follow-Up	-	-	-	155	206	32.9% incr
Paedi						
Paedics Asthma	-	-	-	87	78	10.3% incr
Paedics Neuro	-	-	-	168	137	18.5% decr
Paedics Renal	-	-	-	99	97	2% decr
Paedics Cardio	-	-	-	30	21	30% decr
Paediatrics - Sickle Cell clinic				205	331	61.5% incr
Total Paediatric Specialist Clinic Attendance =	-	-	-	589	664	12.7% incr.

# 11.4 TOP 10 CAUSES OF CHILD HEALTH ADMISSION

Asphyxia, ranked the top leading cause of child admission in 2019 compared to the previous years. Generally, Asphyxia, Pre-maturity, Jaundice, Brochopneumonia and Sepsis continue to account for the top 5 leading causes of child admission in the hospital over the past 3 years with great concern to all stakeholders. Similarly, Malaria, Hernia, Malnutrition, Anaemia and Sickle Cell are also conditions generally being reported among

children and they need targeted intervention to improve the survival chances of these children. Detailed trend analysis provided in table 11.4.1 below.

2017		2018		2019		
CONDITION	NO. OF CASES	CONDITION	NO. OF CASES	CONDITION	NO. OF CASES	
Pre-Maturity	290	Jaundice	392	Asphyxia	328	
Jaundice	257	Pre-Maturity	293	Pre-Maturity	277	
Brochopneumonia	233	Neonatal Sepsis	275	Jaundice	262	
Sepsis of the cord	196	Brochopneumonia	251	Brochopneumonia	181	
Asphyxia birth	142	Neonatal Asphyxia	215	Sepsis	159	
Anaemia	110	Malaria	153	Malaria	125	
Pneumonia	93	Anaemia	96	Hernia	62	
Hernia	85	Hernia	64	Malnutrition	59	
Sickle cell crisis	72	Sickle cell crisis	64	Anaemia	50	
Bronchiolitis	50	Tonsiliitis	56	Sickle Cell	41	

Table 11.4. 1: Top 10 Causes of Child Admission

## 11.5 CHILD HEALTH ADMISSIONS AND DEATH RATE

In 2019, The percentage of neonatal admissions due to external referrals also increased from 26.1% in 2018 to 27.2% in 2019. Paediatrics admissions fluctuated over the past four years with an increment in 2019 by 4.9% (from 1,742 in 2018 to 1,833 in 2019) whilst the Paediatrics death rate also went up from 4.1 in 2018 to 4.6 in 2019. The Average length of stay at the Paediatrics ward however remained at 5 days as compared to 2018. In the same light, the Neonatal admissions in 2019 also went up by 16.6% (from 890 in 2018 to 1,068 in 2019) whilst the NICU death rate increased from 19.6 in 2018 to 20.5 in 2019. The average length of stay however remained at 7 days compared to 2018. Generally, 99.05% of all neonatal deaths were audited in 2019. Figure 11.5.1 and table 11.5.1 below provides detailed comparative trend analysis below.



Figure 11.5. 1: Child Health Admissions and Death Rate Trend - 2016 to 2019

Table 11.5. 1: Trend of Child Health In-patients Performance Analysis

WARD	PAEDIATRIC							
	2017	2018	2019	REMAR KS	2017	2018	2019	REMAR KS
Admissions	1,825	1,74 2	1,833	5.2% incr	780	890	1,068	20% incr
Discharges	1,839	1,76 5	1,791	1.5% incr	557	617	802	30% incr
Average Daily	28	27	32	Increas ed	13	16	20	Increas ed
% Bed Occupancy	59.1	62.7	67.2	increase d	53.2	65.5	83.3	Increas ed
Average Length of Stay	5.4	5.3	6.2	Increas ed	6.5	7.2	7.2	No change
Number of Deaths	80	88	119	35.2% incr	155	176	218	23.8% incr
Death Rate	4.1	4.7	6.2	Increas ed	19.8	19.7	20.5	Increas ed

## **11.6 CHILD MORTALITIES**

Generally, the institution over the past four years continuously recorded increment in child moralities indicators and is a great concern at all levels. Neonatal mortality rate in 2019 went up from 63/1000LB in 2018 to 81/1000LB in 2019. In the same light, the mortality rate among children under five equally increased from 77/1000 LB in 2018 to 101/1000 LB in 2019 whilst Infant Mortality Rate at the institution also went up from 69/1000 LB in 2018 to 92/1000 LB in 2019. A situation that needs a holistic and targeted approach to address in order to improve the survival chances of these children. Evidently, a lot of measures need to be identified and implemented towards reducing these deaths. This is illustrated in figure 11.6.1 and table 11.6.1 below



Figure 11.6. 1: Child Mortality Trend From 2016 To 2019

Table 11.6. 1: Child Mortality Trend From 2016 To 2019

CHILD MORTALITY KEY INDICATORS	2016	2017	2018	2019
Number of Neonatal deaths	207	180	197	241
Neonatal Mortality Rate	72/1000 LB	59/1000 LB	63/1000 LB	81 /1000 LB
Number of Infant deaths	236	201	216	273
Institutional Infant Mortality Rate	82/1000 LB	65/1000 LB	69/1000 LB	92/1000 LB
Number of Infants admissions	1,352	1,442	1,697	1660
Number of under five deaths	250	219	242	302
Under five Mortality Rate	87/1000 LB	71/1000 LB	77/1000 LB	101/1000 LB

# **11.7 NEONATAL DEATH'S AUDITED**

The percentage to neonatal deaths audited improved from 95% in 2018 to 99.05% in 2019. Unfortunately, the strategies could not translate into a drop in the neonatal mortality. In 2019, the neonatal deaths at the hospital went up by 21.3% (from 197 in 2018 to 239 in 2019). A holistic approach is needed to address these child mortalities at the facilities with the commitment and support of key stakeholders.

### **11.8 CHILDREN UNDER FIVE MORTALITY**

Under five mortality in the hospital over the years kept increasing and remain a concern. In 2019, the total number of under five deaths significantly went up by 24.4% (from 242 deaths in 2018 to 301 deaths in 2019). Similarly, the under-five mortality rate also increased from 77/1000 LB in 2018 to 101/1000 LB in 2019. This calls for a critical audit into the deaths to ascertain the contributing factors. Figure 11.8.1 below provides a detailed trend analysis.





#### 11.9 TOP TEN CAUSES OF < 5 MORTALITY

Over the past three years, asphyxia, prematurity, and sepsis remained the leading causes of under-five (U5) mortality. In 2019, the incidence of rate of Asphyxia was 22.4%, whilst prematurity and sepsis conditions were 20.1% and 9.2% respectively. Interestingly, the same conditions were among the top causes of child admission. Detailed trend analysis is provided in figure 11.9.1 and table 11.9.1 below.





Table 11.9. 1: Causes of < 5 Mortality from 2018 to 2019

2018		2019				
CONDITION	NO. OF CASES	CONDITION	NO. OF CASES			
Pre-maturity	71	Asphyxia	78			
Asphyxia birth	47	Pre-maturity	70			
(neonatal)						
Neonatal Jaundice	31	Sepsis	32			
Neonatal Sepsis	22	Neonatal Juandice	30			
Malnutrition	7	Respiratory Failure	25			
Brochopnemonia	6	Brochopneumonia	23			
Meningitis	6	Encephalopathy	13			
Anaemia	5	Respiratory Distress	12			
Burns	2	Malnutrition	11			
Gastroenteritis	2	Intestinal Obstruction	11			

# CHAPTER TWELVE

# **INTERNAL MEDICINE SUB-BMC**

#### **12.1 INTRODUCTION**

Internal Medicine Sub BMC has a total bed complement of 97. The areas under the Sub-BMC includes; Male Medical ward, Female Medical Ward, Intensive Care Unit, Dialysis, Executive suite.

#### 12.2 INTERNAL MEDICINE SUB-BMC'S PERFORMANCE AGAINST CCTH STRATEGIC OBJECTIVES

 Table 12.2. 1: Internal Medicine Sub-BMC's 2019 Annual Performance Against

 CCTH Strategic Objectives

2019 ANNUAL OUTCOME AND OUTPUT PERFORMANCE								
CCTH Objective 1: INCREASE THE SCOPE AND IMPROVE THE QUALITY OF SERVICES								
Internal Medicine Sub-BMC Output								
1. Nurses trained in HDU Care								
2. HDU set up, Oxygen Piped								
CCTH OBJECTIVE 2: REDUCE COMMUNICABLE AND NON-COMMUNICABLE DISEASES								
Internal Medicine Sub-BMC Output								
1. Organised infection control training								
CCTH OBJECTIVE 3: IMPROVE GOVERNANCE, RESOURCE (HUMAN & FINANCIAL) AND MANAGEMENT SYSTEMS								
3.1 Improve on Governance and Management System								
Internal Medicine Sub-BMC Output								
1. A functional Sub-BMC Office created								
3.2 Improve on Human Resource and Management System								
Internal Medicine Sub-BMC Output								
-								
3.3 Improve on Finance Resource and Management System								
Internal Medicine Sub-BMC Output								
-								
OBJECTIVE 4: IMPROVE HEALTH RESEARCH, TEACHING AND EXCELLENCE LEARNING EXPERIENCE								
4.1 Improve on Research:								
Internal Medicine Sub-BMC Output								
-								
4.2 Improve on Teaching and Learning:								
Internal Medicine Sub-BMC Output								
1. Four out of five candidates passed their GCPS/WACP membership exams								
OBJECTIVE 5: INTENSIFY SUPPORT TO THE LOWER LEVEL OF CARE AND SERVICE DELIVERY POINTS								
Internal Medicine Sub-BMC Output								
<ol> <li>The dialysis unit facilitated the training of nurses at Effia Nkwanta Hospital for their established dialysis unit</li> </ol>								
OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF QUALITY SERVICE								
Internal Medicine Sub-BMC Output								
1. Piped Oxygen secured for the female medical ward								

## **12.3 INTERNAL MEDICINE'S PERFORMANCE TREND**

The hospital over the years recorded fluctuating performance under internal medicine. However, in 2019, out of the 13 medical OPD services provided, only 3 of the clinics recorded a decline in attendance. General Medical clinic and Asthma clinic recorded a marginal reduction by 5.58% and 3% respectively. Some of the specialist clinics also recorded significant rise in cases seen with great concern. For instance, total patients seen with renal condition went up significantly by 50.2% in 2019 (from 888 in 2018 to 1334 in 2019) and patients seen with cardiovascular condition increased by 22.8% (from 620 in 2018 to 749 in 2019). In terms of improving on access, the figures can be said to be improving. However, it figures are also an indication that, there is continuous rise in non-communicable diseases that need to be addressed to reduce or avoid complications and improve the life-span of the populace. Evidently, public health education needs to be intensified on lifestyle medication. Detailed trend analysis is provided in table 12.3.1 below.

CLINICS	2015	5 2016 2017		2018	2019	REMARKS						
INTERNAL MEDICINE OPD SERVICES												
General Medical	16,617	16,232	21,060	17,184	18,142	5.58% incr						
Dermatology	357	330	359	315	45	85.7% decr.						
Asthma	297	511	787	1,036	1,005	3% decr.						
Endocrinology	0	82	125	111	106	4.5% incr.						
Haematology	0	223	298	431	437	1.4% incr						
HIV CLINIC	5,895	5,377	6,068	-	4,913	-						
TB CLINIC	35	42	39	131	361	175.6%						
				(42 - CCTH	(31 CCTH	incr.						
				Clients)	Clients)							
Sickle Cell	135	454	650	567	423	25.4% decr						
Gastroenterology	170	560	690	620	749	20.8% incr						
Cardiology	240	1,590	2,153	2,104	2,583	22.8% incr						
Diabetes	9,201	9,309	9,966	10,636	11,304	6.3%incr						
Hepatitis B	446	940	1,059	1179	1,212	2.8% incr						
Renal Clinic	-	389	849	888	1,334	50.2% incr						

#### Table 12.3. 1 Internal Medicine OPD Services

The total number of admissions, discharge and deaths trend under internal medicine also fluctuated over the past four years. However, in 2019, there was a general increase. Admission went up marginally by 0.65%, whilst discharges and deaths increased by 2.1% and 5.9% respectively. Male and female medical wards recorded increment in the total cases admitted in 2019 by 5.4% (from 839 in 2018 to 885 in 2019) and 8.7% (from 839 in 2018 to 912 in 2019) whilst there was a drastic decline in the total cases admitted at the Intensive care unit and executive wards by 40.3% (from 191 in 2018 to 114 in 2019) and 26.3% (from 114 in 2018 to 84 in 2019) respectively. The average length of stay at the generally ranges between 6 day to 10 days in 2019 whilst the percentage of bed occupancy ranges between 33.1% and 64.4% with the least (33.1%) being at the female medical ward and the highest (66.4%) recorded at the executive ward in 2019. Also, the

highest death rate of 15.5% was recorded at the male medical ward whilst executive ward recorded the least death rate of 3.1% in 2019. Detailed trend analysis is provided in figure 12.3.1 to figure 12.3.2 and table 12.3.2 below.



Figure 12.3. 1: Four Year Performance Trend of Internal Medicine

Figure 12.3. 2: Admissions by Wards from 2017 to 2019



WARD	Average Day Occupancy		Oc	% Bec cupar	d ncy	A Le	veragength Stay	ge of		Death		De	ath Ra	te	
	20 17	20 18	20 19	20 17	20 18	201 9	20 17	20 18	20 19	20 17	201 8	20 19	201 7	201 8	20 19
Male Medical	15	16	16	34. 3	37. 2	36. 9	5.8	7	6.5	14 8	134	14 0	15.6 %	15.6 %	15. 5%
Female Medical	16	14	16	37. 5	33. 1	33. 1	7.8	6. 1	6.5	12 3	116	14 4	12.6 %	13.8 %	15. 4%
Intensive Care Unit	3	2	3	41. 7	36. 2	36. 2	6.7	6. 9	11. 1	12 6	106	92	49.6 %	55.5 %	52. 3%
Executiv e Suite	2	2	2	57. 0	64. 4	64. 4	6.1	5	10. 3	2	3	3	1.9	2.6	3.1 %
TOTAL	-	-	-	-	-	-	-	-	-	39 9	357	37 9	-	-	-

Table 12.3. 2: Internal Medicine's Statistical Performance for 2019

# **12.4 COMMON CAUSES OF ADMISSION AT INTERNAL MEDICINE**

Non-communicable diseases continue account for the leading causes of admission at the Internal Medicine sub-BMC. In 2019, cardiovascular accident/stroke (with a total of 203 case) ranked first among the conditions admitted, followed by hypertension (162) and renal failure (161). On the other hand, HIV and sickle cell remained the least cases being admitted to the wards. Key concern is the rate of kidney and renal failure cases being reported with complications. Perhaps, a study needs to be conducted into why the rise in some of these conditions in the metropolis. Detailed trend analysis is provided in figure 12.4.1 below.



Figure 12.4. 1: Trend of The Top Causes of Admissions at Internal Medicine

# **CHAPTER THIRTEEN**

# SURGICAL SUB-BMC

#### 13.1 BACKGROUND

The surgical Sub-BMC has a bed complement of Seventy-Seven (77) and comprises male and female surgical wards, general operating theaters and the recovery unit. The Surgical Sub-BMC's mandate is to provide specialist surgical services, outreach and a supporting role to the rest of the surgical service within its catchment area and beyond, as well as support clinical teaching / training and Research. It is composed of General Surgery, Orthopaedics, Uro-surgery, Neurosurgery, Plastic & Reconstructive surgery, Ear Nose and Throat (ENT), Ophthalmology, Dental and Maxillofacial surgery, Theater and Anaesthesia.

# 13.2 SURGICAL SUB-BMC'S 2019 PERFORMANCE AGAINST CCTH STRATEGIC OBJECTIVES

Table 13.2. 1: Surgical Sub-BMC's 2019 Annual Performance Against CCTHStrategic Objectives

2019 ANNUAL OUTCOME AND OUTPUT PERFORMANCE						
CCTH Objective 1: INCREASE THE SCOPE AND IMPROVE THE QUALITY OF SERVICES						
Access and Quality Outcome	2016	2017	2018	2019		
	Annual	Annual	Annual	Annual		
i. Total surgical operations	3,650	3,853	3,728	4,815	-	29.1%
						incr.
ii. Surgery to Surgeon ratio	152:1	154:1	133:1	127:1	-	Decr.
S	urgical Su	b-BMC Out	puts			
1. Prepared 24-hour duty roster to ens	ure staff pre	esence at the	e surgical wa	ards and su	rgical suite	e for
prompt and quality care.				-		-
2. Perioperative standard protocols have	ve been de	veloped and	displayed a	t wards and	surgical s	uite
3. Institute pre-operative assessment s	ession on t	he ward				
4. Reduced the number of cancelations	s of elective	e cases by 9	0%			
CCTH OBJECTIVE 2: REDUCE C	OMMUNIC	ABLE AND	NON-COM	MUNICABL	E DISEAS	SES
S	urgical Su	b-BMC Out	puts			
1. Breast cancer screening organised in breast cancer awareness month; 384 patients screened.						
2. Infection prevention practices were adhered to ensure safety of staff and patients.						
3. IPC protocols displayed appropriately on all the wards and duly enforced						
<ol><li>Ongoing collaboration with UNDP to manage and segregate waste appropriately at MSW, FSW &amp;</li></ol>						
	surgical suite					
MANACEMENT SYSTEMS		, RESOURC			AL) AND	
MANAGEMENT STSTEMS	agamant S	System				
3.1 Improve on Governance and Management System						
Collaborated with the following instit	utions to co	nduct surge	puis pries:			
Liniversity of San Diego Calif	fornia-Tean	n manadem	ent in trauma	4		
Derriford Hospital LIK-bernis	mash ona	ration		A		
Stone Brook University-treat	ing neonle	with colour				
Iniversity of LITAH- fellowsh		consultant a		kshon (One	aration smi	ما
Ghana)						

3.2 Improve on Human Resource and Management System					
Surgical Sub-BMC Outputs					
1 Increased in staff strength especially urologists anaesthetists general nurses and midwives					
3.3 Improve on Finance Resource and Management System					
Surgical Sub-RMC Outputs					
1. Instituted Service improvement levy (SIL) to help carry out repairs and repovations ongoing					
2. Payment of deposits by non-Insured ongoing					
OBJECTIVE 4: IMPROVE HEALTH RESEARCH, TEACHING AND EXCELLENCE LEARNING					
EXPERIENCE					
4.1 Improve on Research:					
Surgical Sub-BMC Outputs					
1. A paper was published on trauma cases seen over the past five years (2014-2019) at CCTH					
4.2 Improve on Teaching and Learning:					
Surgical Sub-BMC Outputs					
1. Weekly refresher presentation on operating room techniques as well as other nursing and medical					
related topics were organised for all theatre and recovery staff					
2. Training on hernia mesh operation, 58 patients operated on, 49 males and 9 females					
OBJECTIVE 5: INTENSIFY SUPPORT TO THE LOWER LEVEL OF CARE AND SERVICE DELIVERY					
POINTS					
Surgical Sub-BMC Outputs					
-					
OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF QUALITY SERVICE					
OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF QUALITY SERVICE Surgical Sub-BMC Outputs					
OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF QUALITY SERVICE Surgical Sub-BMC Outputs 1. Constructed 72 wooden cabinets (lockers) each for male and female changing rooms at the					
OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF QUALITY SERVICE Surgical Sub-BMC Outputs 1. Constructed 72 wooden cabinets (lockers) each for male and female changing rooms at the surgical suite.					
OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF QUALITY SERVICE         Surgical Sub-BMC Outputs         1. Constructed 72 wooden cabinets (lockers) each for male and female changing rooms at the surgical suite.         2. Received 2 medicine fridges from the Pharmacy Unit for male and female surgical wards					
OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF QUALITY SERVICE         Surgical Sub-BMC Outputs         1. Constructed 72 wooden cabinets (lockers) each for male and female changing rooms at the surgical suite.         2. Received 2 medicine fridges from the Pharmacy Unit for male and female surgical wards         3. Covered 24 torn mattresses with mackintosh					
OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF QUALITY SERVICE         Surgical Sub-BMC Outputs         1. Constructed 72 wooden cabinets (lockers) each for male and female changing rooms at the surgical suite.         2. Received 2 medicine fridges from the Pharmacy Unit for male and female surgical wards         3. Covered 24 torn mattresses with mackintosh         4. Fixed C-arm power source at theatre 2					
OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF QUALITY SERVICE         Surgical Sub-BMC Outputs         1. Constructed 72 wooden cabinets (lockers) each for male and female changing rooms at the surgical suite.         2. Received 2 medicine fridges from the Pharmacy Unit for male and female surgical wards         3. Covered 24 torn mattresses with mackintosh         4. Fixed C-arm power source at theatre 2         5. Purchased 100 pieces of 30 watts' energy saving bulbs					
OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF QUALITY SERVICE         Surgical Sub-BMC Outputs         1. Constructed 72 wooden cabinets (lockers) each for male and female changing rooms at the surgical suite.         2. Received 2 medicine fridges from the Pharmacy Unit for male and female surgical wards         3. Covered 24 torn mattresses with mackintosh         4. Fixed C-arm power source at theatre 2         5. Purchased 100 pieces of 30 watts' energy saving bulbs         6. Repainted waiting areas and balconies of the wards and surgical suite					
OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF QUALITY SERVICE         Surgical Sub-BMC Outputs         1. Constructed 72 wooden cabinets (lockers) each for male and female changing rooms at the surgical suite.         2. Received 2 medicine fridges from the Pharmacy Unit for male and female surgical wards         3. Covered 24 torn mattresses with mackintosh         4. Fixed C-arm power source at theatre 2         5. Purchased 100 pieces of 30 watts' energy saving bulbs         6. Repainted waiting areas and balconies of the wards and surgical suite         7. Purchased twelve (12) high density 5 inches' latex foam mattresses for male and female surgical					
OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF QUALITY SERVICE         Surgical Sub-BMC Outputs         1. Constructed 72 wooden cabinets (lockers) each for male and female changing rooms at the surgical suite.         2. Received 2 medicine fridges from the Pharmacy Unit for male and female surgical wards         3. Covered 24 torn mattresses with mackintosh         4. Fixed C-arm power source at theatre 2         5. Purchased 100 pieces of 30 watts' energy saving bulbs         6. Repainted waiting areas and balconies of the wards and surgical suite         7. Purchased twelve (12) high density 5 inches' latex foam mattresses for male and female surgical wards.					
OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF QUALITY SERVICE         Surgical Sub-BMC Outputs         1. Constructed 72 wooden cabinets (lockers) each for male and female changing rooms at the surgical suite.         2. Received 2 medicine fridges from the Pharmacy Unit for male and female surgical wards         3. Covered 24 torn mattresses with mackintosh         4. Fixed C-arm power source at theatre 2         5. Purchased 100 pieces of 30 watts' energy saving bulbs         6. Repainted waiting areas and balconies of the wards and surgical suite         7. Purchased twelve (12) high density 5 inches' latex foam mattresses for male and female surgical wards.         8. Purchased 3 UPS for the newly installed monitors at the recovery ward.					
OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF QUALITY SERVICE         Surgical Sub-BMC Outputs         1. Constructed 72 wooden cabinets (lockers) each for male and female changing rooms at the surgical suite.         2. Received 2 medicine fridges from the Pharmacy Unit for male and female surgical wards         3. Covered 24 torn mattresses with mackintosh         4. Fixed C-arm power source at theatre 2         5. Purchased 100 pieces of 30 watts' energy saving bulbs         6. Repainted waiting areas and balconies of the wards and surgical suite         7. Purchased twelve (12) high density 5 inches' latex foam mattresses for male and female surgical wards.         8. Purchased 3 UPS for the newly installed monitors at the recovery ward.         9. Fixed sockets at the bedside of male and female surgical wards for suction machines and other					
OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF QUALITY SERVICE         Surgical Sub-BMC Outputs         1. Constructed 72 wooden cabinets (lockers) each for male and female changing rooms at the surgical suite.         2. Received 2 medicine fridges from the Pharmacy Unit for male and female surgical wards         3. Covered 24 torn mattresses with mackintosh         4. Fixed C-arm power source at theatre 2         5. Purchased 100 pieces of 30 watts' energy saving bulbs         6. Repainted waiting areas and balconies of the wards and surgical suite         7. Purchased twelve (12) high density 5 inches' latex foam mattresses for male and female surgical wards.         8. Purchased 3 UPS for the newly installed monitors at the recovery ward.         9. Fixed sockets at the bedside of male and female surgical wards for suction machines and other electrical equipment					
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OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF QUALITY SERVICE         Surgical Sub-BMC Outputs         1. Constructed 72 wooden cabinets (lockers) each for male and female changing rooms at the surgical suite.         2. Received 2 medicine fridges from the Pharmacy Unit for male and female surgical wards         3. Covered 24 torn mattresses with mackintosh         4. Fixed C-arm power source at theatre 2         5. Purchased 100 pieces of 30 watts' energy saving bulbs         6. Repainted waiting areas and balconies of the wards and surgical suite         7. Purchased twelve (12) high density 5 inches' latex foam mattresses for male and female surgical wards.         8. Purchased 3 UPS for the newly installed monitors at the recovery ward.         9. Fixed sockets at the bedside of male and female surgical wards for suction machines and other electrical equipment         10. Installed 2 new 2.5 horse power air conditioners at the recovery ward.         11. Purchased 100 pieces of 30 watts energy saving bulbs					
OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF QUALITY SERVICE         Surgical Sub-BMC Outputs         1.       Constructed 72 wooden cabinets (lockers) each for male and female changing rooms at the surgical suite.         2.       Received 2 medicine fridges from the Pharmacy Unit for male and female surgical wards         3.       Covered 24 torn mattresses with mackintosh         4.       Fixed C-arm power source at theatre 2         5.       Purchased 100 pieces of 30 watts' energy saving bulbs         6.       Repainted waiting areas and balconies of the wards and surgical suite         7.       Purchased twelve (12) high density 5 inches' latex foam mattresses for male and female surgical wards.         8.       Purchased 3 UPS for the newly installed monitors at the recovery ward.         9.       Fixed sockets at the bedside of male and female surgical wards for suction machines and other electrical equipment         10.       Installed 2 new 2.5 horse power air conditioners at the recovery ward.         11.       Purchased 100 pieces of 30 watts energy saving bulbs         12.       Received thirty (30) plastic chairs from UCC school of Medical Sciences					
OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF QUALITY SERVICE           Surgical Sub-BMC Outputs           1. Constructed 72 wooden cabinets (lockers) each for male and female changing rooms at the surgical suite.           2. Received 2 medicine fridges from the Pharmacy Unit for male and female surgical wards           3. Covered 24 torn mattresses with mackintosh           4. Fixed C-arm power source at theatre 2           5. Purchased 100 pieces of 30 watts' energy saving bulbs           6. Repainted waiting areas and balconies of the wards and surgical suite           7. Purchased twelve (12) high density 5 inches' latex foam mattresses for male and female surgical wards.           8. Purchased 3 UPS for the newly installed monitors at the recovery ward.           9. Fixed sockets at the bedside of male and female surgical wards for suction machines and other electrical equipment           10. Installed 2 new 2.5 horse power air conditioners at the recovery ward.           11. Purchased 100 pieces of 30 watts energy saving bulbs           12. Received thirty (30) plastic chairs from UCC school of Medical Sciences           13. Purchased 4 oxygen flow metres for male and female surgical wards.					
OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF QUALITY SERVICE           Surgical Sub-BMC Outputs           1. Constructed 72 wooden cabinets (lockers) each for male and female changing rooms at the surgical suite.           2. Received 2 medicine fridges from the Pharmacy Unit for male and female surgical wards           3. Covered 24 torn mattresses with mackintosh           4. Fixed C-arm power source at theatre 2           5. Purchased 100 pieces of 30 watts' energy saving bulbs           6. Repainted waiting areas and balconies of the wards and surgical suite           7. Purchased twelve (12) high density 5 inches' latex foam mattresses for male and female surgical wards.           8. Purchased 3 UPS for the newly installed monitors at the recovery ward.           9. Fixed sockets at the bedside of male and female surgical wards for suction machines and other electrical equipment           10. Installed 2 new 2.5 horse power air conditioners at the recovery ward.           11. Purchased 100 pieces of 30 watts energy saving bulbs           12. Received thirty (30) plastic chairs from UCC school of Medical Sciences           13. Purchased 4 oxygen flow metres for male and female surgical wards.           14. Purchased 2 pulse oximeters, one for each ward, male and female surgical wards.					

The hospital provides various surgical services such as Orthopaedics, Neurosurgery, Urosurgery, Plastics, General Surgery Services. The hospital between 2015 to 2017 recorded a consistent increase in the general surgical OPD attendance. However, between 2017 and 2019 there has been a continuous decline by 18.9% (from 4234 in 2018 to 3433 in 2019). Generally, the surgical sub-specialties attendance has been fluctuating since 2015 but in 2019, the Neuro-surgical clinic attendance went up significantly by 76.6% (from 351 in 2018 to 620 in 2019). Table 13.3.1 provides the detailed analysis below.

Table 13.3. 1: Outpatient Surgical Services

Surgical Services	2015	2016	2017	2018	2019	Remarks
General Surgery	3,983	4,376	5,702	4234 (25.7% Decr)	3433	18.9%Decr
Orthopaedics	1,913	2,223	2,347	2485 (5.9% Incr.)	2311	7.0%Decr
Uro-Surgery	2,208	2,843	3,275	4102 (25.3% Incr)	6119	49.2%Incr
Neuro-Surgery	200	129	312	351 (12.5% Incr)	620	76.6%Incr
Plastic Surgery	176	564	601	433 (27.9% Decr)	461	6.5%Incr
Anaesthesia	378	943	868	782 (9.9% Decr)	894	14.3%Incr
Colorectal	-	-	-	-	82	

## **13.4 SURGICAL STATISTICAL PERFORMANCE – INPATIENT**

Cases admitted to the surgical department between 2015 and 2017 steadily went up but dropped significantly by 16.2% in 2018. However, in 2019, it increased again by 15% (from 1869 in 2018 to 2150 in 2019). The department on the other hand continue to record a rise in the surgical mortalities over the past five years with a 0.9% increase in 2019 (from 114 in 2018 115 in 2019). The theatre deaths also saw 40% increment over the previous year (from 5 deaths in 2018 to 7 deaths in 2019) whilst the deaths recorded at the theatre recovery ward went up significantly by 300% (from 5 in 2018 to 20 in 2019) which is of great concern to stakeholders. Detailed comparative trend analysis is provided in figure 13.4.1 and table 13.4.1 below.



Figure 13.4. 1: Surgical Statistics on Performance

Table 13.4. 1: Surgical Statistics on Performance

INDICTOR	2015	2016	2017	2018	2019	REMARKS
Admission	1,845	2,130	2,230	1,869	2,150	15% increase
Discharges	1,834	2,163	2,247	1,875	2,098	11.9% increase
Surgical Death (MSW + FSW+ Surgical Suite + Recovery Ward + ICU surgical cases + Paedics surgical cases)	99	93	107	114	115	0.9% increase
Death (Theatre)	3	4	14	5	7	40% increase
Death (Recovery ward)	5	11	3	5	20	300% increase

# 13.5 SURGERIES PERFORMED PER SURGICAL SUB-SPECIALTY

The hospital over the years recorded fluctuation in total surgeries performed but in 2019, there was a significant increase of 29.2% (from 3728 in 2018 to 4815 in 2019) and the surgery to surgeon ratio went down from 133:1 to 127:1 due to the improvement in the number of surgical specialists. Also, the theatre death rate went up slightly from 0.3% in 2018 to 0.6% in 2019. Interestingly, whilst the major surgeries performed by the surgical departmental went up significantly by 86.9% (from 1,573 in 2018 to 2,940 in 2019). The department recorded consistent increase in the neurosurgical operations over the past four years (from 4 surgeries performed in 2016 to 85 neurosurgeries in 2019) with 83.3% increase in 2019 (from 45 in 2018 to 85 cases in 2019). Despite the general fluctuating

figures in total surgeries performed, General surgical cases went up by 55.4% in 2019 (from 626 in 2018 to 973 in 2019) whilst Uro-surgical cases dropped by 16.2% (from 228 in 2018 to 191 in 2019). Detailed comparative analysis is provided in figure 13.5.1 to figure 13.5.2 and table 13.5.1 below.



Figure 13.5. 1: Four-Year Trend in Total Surgeries Performed From 2016 To 2019

Figure 13.5. 2: Surgeries Performed Per Surgical Sub-Specialty



# 13.6 TOP TEN CAUSES OF SURGICAL ADMISSIONS IN 2019

Hernia remained the leading cause of surgical admission over the years at the institution and went up from 316 cases in 2018 to 349 cases in 2019. Laparotomy related cases account for the 2<sup>nd</sup> cause of admission in 2019 followed by Appendix and Fractures (Orthopaedics cases). Thyroidectomy and Orchiectomy were ranked the 9<sup>th</sup> and 10<sup>th</sup> among the top 10 causes of surgical admissions respectively as shown in table 13.6.1 below.

2017		2018		2019	
CONDITION	NO. OF CASES	CONDITION	NO. OF CASES	CONDITION	NO. OF CASES
Hernia Reducible	387	Hernia	316	Hernia	349
Injury	172	Fracture	173	Laparotomy	145
Breast Cancer	155	Bleeding Prostrate	152	Appendectomy	119
Fracture	135	Intestinal Obstruction	107	Fractures	221
Cellulitis	131	Injury	106	Intestinal Obstruction	90
Bleeding Prostrate	127	Cellulitis	105	Neurosurgeries	85
Intestinal Obstruction	123	Breast Cancer	102	Plastic Surgeries	82
Appendicitis	118	Appendicitis	95	Superficial Tumours	69
Gangrene	96	Gangrene	76	Thyroidectomy	41
Goitre	68	Goitre	42	Orchiectomy	37

 Table 13.6. 1: Top Ten Causes of Surgical Admissions

# CHAPTER FOURTEEN

# DENTAL, EYE EAR NOSE & THROAT (DEENT) SUB-BMC

#### 14.1 INTRODUCTION

The DEENT is a new Sub-BMC that was created in 2019 and was carved out of the bigger Surgical Sub-BMC. This is because the DEENT involves many areas quite different from mainstream Surgery E.g. Dentistry, Audiology, Speech Therapy, Ophthalmology, Optometry (dispensing and sale of spectacles etc.) The sub-BMC provides Dental and Maxillofacial services as well as Eye, Ear Nose and Throat services hence, the name DEENT.

# 14.2 DEENT SUB-BMC'S 2019 PERFORMANCE AGAINST CCTH STRATEGIC OBJECTIVES

The general performance of the DEENT sub-BMC is outlined against the hospital's strategic objectives. This is provided in table 14.2.1 below

# Table 14.2. 1: DEENT Sub-BMC's 2019 Annual Performance against CCTH Strategic Objectives

2019 ANNUAL OUTCOME AND OUTPUT PERFORMANCE					
CCTH Objective 1: INCREASE THE SCOPE AND IMPROVE THE QUALITY OF SERVICES					
DEENT's Outputs					
<ol> <li>Successful collaborative surgeries were done with the team of all units to conduct series of Surgeries under ENT and Eye.</li> </ol>					
CCTH OBJECTIVE 2: REDUCE COMMUNICABLE AND NON-COMMUNICABLE DISEASES					
DEENT's Outputs					
-					
CCTH OBJECTIVE 3: IMPROVE GOVERNANCE, RESOURCE (HUMAN & FINANCIAL) AND MANAGEMENT SYSTEMS					
3.1 Improve on Governance and Management System					
DEENT's Outputs					
1. Inauguration of Sub-BMC and formation of Management team					
3.2 Improve on Human Resource and Management System					
DEENT's Outputs					
-					
3.3 Improve on Finance Resource and Management System					
DEENT SUB-BMC					
-					
OBJECTIVE 4: IMPROVE HEALTH RESEARCH, TEACHING AND EXCELLENCE LEARNING EXPERIENCE					
4.1 Improve on Research:					
DEENT SUB-BMC					
-					

4.2 Improve on Teaching and Learning:
DEENT SUB-BMC
<ol> <li>Fellowship training in Glaucoma at Nepal by one of the ophthalmologists</li> </ol>
2. 39 students (2017- 5 students, 2018-13 students, 2019 students 33) Medical students and
Rotational Nurses hosted for their programs and rotations respectively, thus generating interest
in DEENT specialist training.
OBJECTIVE 5: INTENSIFY SUPPORT TO THE LOWER LEVEL OF CARE AND SERVICE
DELIVERY POINTS
DEENT SUB-BMC
1. Successful collaborative surgeries were done with the team of all units to conduct series of
Surgeries
i. ENT surgeons from the University of Utah, USA –
ii. EYE involved in Himalayan Cataract Project \ National Cataract Outreach Programme –
(12.756) Screening with 1,191 Surgeries performed)
III. Collaborate with Operation-Smile Ghana to provide free Cleft lip and palate-(29 surgeries)
2. Conducted 159 and 8 outreaches to communities and Schools respectively
OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF
DENTAL, EYE, EAR, NOSE AND THROAT SUB-BMC
1. Donations received from HCP and Utah Team includes;
• 2 Mobile operating microscope, autorefractor, 6 new cataract sets, Keratometer, 2A
Scanners, drugs, step down, Flexible laryngoscopy, 2 Monitors, 2 Camera heads,
head light, Audiometer, Tympanoplasty set, Suction machine and other consumables
tor Eye surgery
2. Renovation of Dental Unit – General Floor Tilling, Fixing of New Air conditioners, Painting etc.
3. Acquired two otoscopes, four ophthalmoscope and one retinoscope
<ol><li>Printer for the visual field analyser repaired and functional</li></ol>

#### 14.3 PERFORMANCE TREND OF DEENT AT OPD BASES

In general, there was an increment in the total number of OPD cases seen at the DEENT sub-BMC. The Dental and Maxillofacial department recorded an increase of 9.1% in the OPD attendance (from 4,769 in 2018 to 5,204 in 2019) whilst the ENT OPD attendance went up by 31.7% (from 6,230 in 2018 to 8,211 in 2019). The Eye department similarly recorded a significant increase of 35.4% in eye cases seen (from 8,917 in 2018 to 12,078 in 2019) part of which can be attributed to the department's collaboration with the Himalayan Cataract project group from USA to screen and conduct eye surgeries at the institution in 2019. The speech therapy service which was introduced by the institution in 2018 also recorded considerably increase in the total cases seen by 183.3% in 2019 (from 24 to 68 in 2019). In 2019, a total of 468 cases were referred to the DEENT sub-BMC from peripheral facilities within the Central and Western Region whilst 79 cases were referred out. Figure 14.3.1 to figure 14.3.2 and table 14.3.1 provides detailed trend analysis below.



Figure 14.3. 1: Performance Trend of DEENT at OPD Bases – 2015 To 2019

Figure 14.3. 2: DEENT Sub-BMC Referrals in 2019



Table 14.3. 1: DEENT Referrals in 2019

FACILITIES REFERRING TO DEENT		FACILITIES CASES ARE REFEREED TO		
INSTITUTION	NO. OF	INSTITUTION	NO. OF	
	CASES		CASES	
Takoradi Hospital	21	KBTH (Crystal Eye Clinic)	8	
University of Cape Coast	18	KBTH (Agawal Eye Clinic)	8	
Hospital				
Our Lady of Grace Hospital	15	KBTH (Zeba Eye Clinic)	4	
(Asikuma)				
Abura Dunkwa District Hospital	15	KBTH	59	
Essikado Government Hospital	12	TOTAL CASES	79	
Ankaful Regional hospital	12			
Effia Nkwanta Regional Hospital	8			
Christian Eye Clinic	7			
Mercy Women's Centre	6			
Twifo Praso	5			
Others	110	]		
TOTAL CASES	229			

## 14.4 TOP CONDITIONS SEEN AT DEENT

Glaucoma condition remain prevalent in the Cape Coast Metropolis. In 2019, the Eye department recorded 2,266 Glaucoma cases seen at the OPD and the lead among the top 10 eye conditions seen in 2019. In the same light, the Dental & Maxillofacial clinic Apical Periodontitis as the leading condition with 1,074 cases in 2019. ENT clinic also recorded Otitis Media as the leading condition among the top 10 ENT OPD conditions seen with 1,281 cases whilst Speech Therapy clinic recorded Autism Spectrum Disorder (ASD) as the highest condition seen with 43 cases in 2019. Table 14.4 below showcase the top 10 OPD conditions seen at DEENT per sub-specialty in 2019.

Top Ten Eye Conditions	Seen	Top Ten Dental & Maxillofacial Co	onditions Seen
Condition	No. Of Cases	Condition	No. Of Cases
1. Glaucoma	2,266	1. Apical Periodontitis	1,074
2. All Forms of	1,922	2. Plaque induced gingivitis	550
Conjunctivitis			
3. Cataract	1,191	3. Irreversible Pulpitis	545
4. Refractive Error	948	4. Reversible Pulpitis	462
5. Pterygium	327	5. Dentoalveolar abscess	198
6. Lid abnormalities	151	6. Fractured Tooth	152
7. Normal Eyes	99	7. Periapical abscess	136
8. Cornea Ulcer	96	8. Fractured Jaw	92
9. Trauma	88	9. Pericoronitis	78
10. Others	5,256	10. Avulsion	61
Top Ten ENT Condition	s Soon	Ton Speech Therapy Conditions	Seen
Top Ten ENT Conditions	5 Occili	rop opecen merapy conditions	Occin
Condition	No. Of Cases	Condition	No. Of Cases
Condition 1. Otitis Media	<b>No. Of Cases</b> 1,281	Condition1. Autism Spectrum Disorder	No. Of Cases
Condition           1. Otitis Media	No. Of Cases	Condition 1. Autism Spectrum Disorder (ASD)	No. Of Cases
Condition         1. Otitis Media         2. Impacted wax	No. Of Cases           1,281           930	Condition1. Autism Spectrum Disorder (ASD)2. Language Delay \ Disorder	No. Of Cases           43           25
Condition         1. Otitis Media         2. Impacted wax         3. Tonsillitis/Pharyn	No. Of Cases           1,281           930           900	Condition1. Autism Spectrum Disorder (ASD)2. Language Delay \ Disorder3. Articulation Disorder	No. Of Cases           43           25           14
Condition         1. Otitis Media         2. Impacted wax         3. Tonsillitis/Pharyn gitis	No. Of Cases           1,281           930           900	Condition1. Autism Spectrum Disorder (ASD)2. Language Delay \ Disorder3. Articulation Disorder	No. Of Cases           43           25           14
Condition         1. Otitis Media         2. Impacted wax         3. Tonsillitis/Pharyn gitis         4. Otitis Externa	No. Of Cases           1,281           930           900           831	Condition1. Autism Spectrum Disorder (ASD)2. Language Delay \ Disorder3. Articulation Disorder4. Aphasia	No. Of Cases           43           25           14           12
Condition         1. Otitis Media         2. Impacted wax         3. Tonsillitis/Pharyn gitis         4. Otitis Externa         5. Sinusitis	No. Of Cases           1,281           930           900           831           795	Condition         1. Autism Spectrum Disorder (ASD)         2. Language Delay \ Disorder         3. Articulation Disorder         4. Aphasia         5. Stammering	No. Of Cases           43           25           14           12           8
Condition         1. Otitis Media         2. Impacted wax         3. Tonsillitis/Pharyn gitis         4. Otitis Externa         5. Sinusitis         6. Allergies	No. Of Cases           1,281           930           900           831           795           795	Condition         1. Autism Spectrum Disorder (ASD)         2. Language Delay \ Disorder         3. Articulation Disorder         4. Aphasia         5. Stammering         6. Dysarthria	No. Of Cases           43           25           14           12           8           6
Condition1. Otitis Media2. Impacted wax3. Tonsillitis/Pharyn gitis4. Otitis Externa5. Sinusitis6. Allergies7. Adenoids	No. Of Cases           1,281           930           900           831           795           644	Condition         1. Autism Spectrum Disorder (ASD)         2. Language Delay \ Disorder         3. Articulation Disorder         4. Aphasia         5. Stammering         6. Dysarthria         7. Dysphonia	No. Of Cases           43           25           14           12           8           6           4
Condition1. Otitis Media2. Impacted wax3. Tonsillitis/Pharyn gitis4. Otitis Externa5. Sinusitis6. Allergies7. Adenoids Hypertrophy	No. Of Cases           1,281           930           900           831           795           644	Condition         1. Autism Spectrum Disorder (ASD)         2. Language Delay \ Disorder         3. Articulation Disorder         4. Aphasia         5. Stammering         6. Dysarthria         7. Dysphonia	No. Of Cases           43           25           14           12           8           6           4
Condition1. Otitis Media2. Impacted wax3. Tonsillitis/Pharyn gitis4. Otitis Externa5. Sinusitis6. Allergies7. Adenoids Hypertrophy8. Otomycosis	No. Of Cases           1,281           930           900           831           795           644           242	Condition         1. Autism Spectrum Disorder (ASD)         2. Language Delay \ Disorder         3. Articulation Disorder         4. Aphasia         5. Stammering         6. Dysarthria         7. Dysphonia         8. Others	No. Of Cases           43           25           14           12           8           6           4           4
Condition1. Otitis Media2. Impacted wax3. Tonsillitis/Pharyn gitis4. Otitis Externa5. Sinusitis6. Allergies7. Adenoids Hypertrophy8. Otomycosis9. Epistaxis	No. Of Cases           1,281           930           900           831           795           644           242           139	Condition         1. Autism Spectrum Disorder (ASD)         2. Language Delay \ Disorder         3. Articulation Disorder         4. Aphasia         5. Stammering         6. Dysarthria         7. Dysphonia         8. Others	No. Of Cases           43           25           14           12           8           6           4           4

## Table 14.4. 1: Top Ten Conditions Seen by DEENT Per Sub-Specialty in 2019

#### **14.5 DEENT ADMISSIONS**

In 2019, the DEENT admitted a total of 451 patients as compared to 153 in 2018. 55.9% (242 cases) of the cases admitted were from the ENT department. Generally, Eye and Maxillofacial – Dental admissions fluctuated over the past three years. Interesting, although the eye department recorded the highest OPD attendance with an increment of 35.4% in 2019, the eye cases admitted dropped by 21.1% (from 123 in 2018 to 97 in 2019). On the other hand, the Maxillofacial – Dental admissions significantly went up by 273.3% in 2019 (from 30 in 2018 to 112 in 2019. Detailed trend analysis is provided in Figure 14.5.1 and Table 14.5.1 below.



Figure 14.5. 1: Trend of Admissions by DEENT Sub-BMC

Table 14.5. 1: Trend of Admissions by	y DEENT from 2017 to 2019
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DEPARTMENT	2017	2018	2019	REMARKS
EYE	118	123	97	21.1% decr
DENTAL & MAX.	33	30	112	273.3% incr
ENT	-	-	242	-
SPEECH THERAPY	-	-	-	-
TOTAL =	151	153	451	194.8% incr.

#### **14.6 SURGERIES PERFORMED BY DEENT DEPARTMENT**

In 2019, the DEENT sub-BMC recorded an increase of 168.1% (from 1081 in 2018 to 2,901 in 2019) in the total surgeries performed. Similarly, the total number of major surgeries increased by 291.3% (from 369 in 2018 to 1,444 in 2019) whereas the total number of minor surgeries increased by 104.3% (from 713 in 2018 to 1,457 in 2019). In the same light, the number of refractive procedures performed by the Eye department decreased by 28.6% in 2019 (from 2,182 in 2018 to 1,559 in 2019) whilst a total of 10 automated visual field assessment were performed in 2019. Figures 14.6.1 to figure 14.6.2 provides detailed trend and analysis of Surgeries Performed by the sub-BMC Per Sub-Specialty as well as table 14.6.1 which provides analysis of other Eye procedures performed from 2017 to 2019 below.


Figure 14.6. 1: Trend of Total Surgeries Performed by DEENT Sub-BMC

Figure 14.6. 2: Surgeries Performed by DEENT Per Sub-Specialty



#### Table 14.6. 1: Other Eye Procedures Performed from 2017 to 2019

PROCEDURE	2017	2018	2019
Refractions	1,098	2,182	1,559 (28.6% decr)
Automated visual field Assessment	8	NIL	10
Binocular vision Assessment	1	NIL	NIL

#### 14.7 PERFORMANCE FROM OUTREACH PROGRAMME

In 2019, the department conducted outreach services in 159 Communities and 8 Schools. The DEENT department over the years is known for their outreach and screen programmes that are scheduled and undertaken once every two months to various selected communities, churches and schools including hospital surgical outreach within the Region and beyond. Table 14.7.1 and table 14.7.2 below illustrates the various outreach programme undertaken and the number of beneficiaries.

Table 14.7. 1: Performance from Outreach Programme for 2019

INDICATOR	NUMBER
Number of communities visited	159
Number of churches visited	6
Number of school screening done	8
Number of cases seen for school screening	495
Cases operated	86
Surgical Outreach	4

### Table 14.7. 2: Surgical Outreaches Conducted in 2019

DEEN	IT OUTREACH	ł	ENT UNIT OUTREACH				
Community	No.	No.	Community	No.	No. Referred		
	Screened	Referred		Screened			
Kissi	101	60	Abreshyia	206	56		
Jukwa Abrafo	95	43	Jukwa	120	40		
Krofu	82	60	Abura	120	55		
			Dunkwa				
Abura Dunkwa	80	61	Kissi	104	46		
Gomoa Budu	60	46	Mary Queen	106	15		
Atta			Of Peace				
Others	116	92	Others	482	211		
Total	584	365	Total	1338	412		
		EYE UNIT	OUTREACH				
	Commu	inity		Number			
Abura Dunkwaj	yh			225			
Moree				225			
Twifo Hemang				186			
Adukrom				172			
Kissi				168			
Cape Coast Tov	wnship			160			
Brimsu		149					
Antwikaa		141					
Nyanfeku Ekrof	ul	133					
Asunasi		107					
Others				9,	125		
Total		10	791				

### CHAPTER FIFTEEN

### **PUBLIC HEALTH SERVICES**

#### **15.1 INTRODUCTION**

Public Health Unit contributes to the improvement of health and well-being of the population of all age groups through: Preventive, Promotional, Rehabilitative and Curative Services.

Services provided at the unit includes;

- 1. Health Promotion
- 2. Immunization
- 3. Child Welfare Clinic
- 4. Family Planning
- 5. Adolescent Health Services
- 6. Counselling Services
- 7. Some aspects of Post Natal Services
- 8. School Health
- 9. Home Visits
- 10. Sickle Cell Clinic
- 11. TB Management
- 12. Disease Surveillance
- 13. HIV Clinic

## 15.2 PUBLIC HEALTH UNIT'S 2019 PERFORMANCE AGAINST CCTH STRATEGIC OBJECTIVES

## *Table 15.2. 1 Public Health Unit's 2019 Annual Performance Against CCTH Strategic Objectives*

2019 ANNUAL OUTCOME AND OUTPUT PERFORMANCE									
CCTH Objective 1: INCREASE THE SCOPE AND IMPROVE THE QUALITY OF SERVICES									
	HOSPIT	ALWIDE LI	EVEL		•				
	A	ctual Perfo	2019 Target	Rema rks/ % Diff.					
Access and Impact	2016 Annual	2017 Annual	2018 Annual	2019 Annual					
i. Couple year protection	2,277.6	1507	1,521.6	1,562.5	5% Incr.	2.7% Incr.			
	Public	Health Out	puts						
<ol> <li>Increased participation of p</li> </ol>	ublic health	n unit at ward	ds						
CCTH OBJECTIVE 2: REDUCE		NICABLE A	ND NON-CC	<b>MMUNICA</b>	BLE DISEA	SES			
	Public	Health Out	puts						
1. Regular assessment and	review of T	B and MDR	cases in Ce	entral Regio	า				
<ol><li>Screened all patients with</li></ol>	cough for	ТВ							
3. Provided public education on non-communicable disease									
<ol><li>Increased Vaccination for</li></ol>	4. Increased Vaccination for Penta, OPV and Rota Virus Vaccine								
5. Advocated for TV's to be	used for he	alth educati	on at waiting	g areas in th	e hospital				

2019 ANNUAL OUTCOME AND OUTPUT PERFORMANCE							
CCTH OBJECTIVE 3: IMPROVE GOVERNANCE, RESOURCE (HUMAN & FINANCIAL) AND MANAGEMENT SYSTEMS							
3.1 Improve on Governance and Management System							
Public Health Outputs							
1. Developed an organogram foe the Unit							
3.2 Improve on Human Resource and Management System							
Public Health Outputs							
-							
3.3 Improve on Finance Resource and Management System							
Public Health Outputs							
-							
OBJECTIVE 4: IMPROVE HEALTH RESEARCH, TEACHING AND EXCELLENCE LEARNING EXPERIENCE							
4.1 Improve on Research:							
Public Health Outputs							
-							
4.2 Improve on Teaching and Learning:							
Public Health Outputs							
-							
OBJECTIVE 5: INTENSIFY SUPPORT TO THE LOWER LEVEL OF CARE AND SERVICE DELIVERY POINTS							
Public Health Outputs							
1. Conducted twelve (12) community outreaches							
OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF QUALITY SERVICE							
Public Health Outputs							

#### 15.3 IMMUNIZATION TREND (EPI)

Vaccination is one of the essentials ways of preventing certain medical conditions that may lead to disability or mortality. The total number of people vaccinated over the past three years (2017 to 2019) continuously went up although cannot be compared to the high increment in 2015 and 2016. Total people vaccinated in 2019 went up marginally by 1.7% (from 17,448 in 2018 to 17,736 in 2019). The total number of people vaccinated against Yellow Fever also increased significantly by 55.5% (from 182 in 2018 to 283 in 2020) whilst Vitamin A recipients dropped considerably in 2019. The total number of pregnant women who received tetanus vaccination went up by 4% (from 1,202 in 2018 to 1,250 in 2019). Detailed trend analysis on immunization has been presented in table 15.3.1 below.

VACCINES	2015	2016	2017	2018	2019	REMARKS
BCG	3,326	3,565	3,190	3,000	3,182	6.1% incr
Polio	4,509	5,088	4,514	5,122	5,398	5.6% incr
Pentavalent (1-3)	1,686	2,496	1,881	2,121	2,198	3.6%incr
Rota Virus Vaccine	1.414	1,226	1,596	1,780	1,844	3.6% incr
(Rota 1&2)						
MCV	1,686	2,496	-	-	-	-
Yellow Fever	241	332	263	182	283	55.5% incr
MMR	31	20	-	-	I	-
Td1/Td2	13,02	962	-	-	-	-
Vitamin 'A' 100,000 IU	371	332	251	245	181	26.1% decr
Vitamin 'A' 200,000 IU	819	1496	364	301	296	1.7% decr
Maternal VIT A	1,132	1,224	1,426	678	-	-
Pneumococcal Vaccine	1,686	1,842	1,879	2,121	2189	3.2% incr
M.R. 1	241	256	258	175	-	-
M.R 2	161	164	218	119	I	-
Tetanus Pregnant	1,302	1,307	1,032	1,202	1,250	4% incr
Tetanus Non-Pregnant	245	275	333	275	-	-
Inactivated Polio	-	-	-	-	354	-
Vaccine (IPV						
Men A	-	-	187	127	168	32.3% incr
RTSS (Malaria Vaccine)	-	-	-	-	261	-
LLIN	-	-	-	-	132	-
Total	20,152	23,081	17,392	17,448	17,736	1.7% incr

#### Table 15.3. 1: Four-Year Immunization Trend

#### **15.4: CHILD WELFARE SERVICES**

One of the most important activity undertaken by the public health department is the child welfare clinic for the under-five children. However, both attendants and registrants' numbers keep fluctuating over the past three years. In 2019, the total number of registrants declined by 11.8% (from 382 in 2018 to 337 in 2019) whilst the total number of attendants also reduced by 17% (from 3,973 to 3,296) in 2019. This is illustrated in figure 15.4.1 below.



Figure 15.4. 1: Public Health Child Welfare Clinic from 2017 to 2019

#### 15.5 INTEGRATED DISEASE SURVEILLANCE AND RESPONSE

The Public Health Unit as part of it mandates undertake regular surveillance of priority disease conditions. This is to ensure the early detection and management in order to prevent an outbreak. In 2019, Out of the 8-disease placed under surveillance, Meningitis was the most suspected (15 cases suspected). However, all the 8 diseases suspected tested negative as compared to 2018 where cholera and Neonatal Tetanus were confirmed. The table 15.5.1 below provides the detailed analysis of the diseases surveyed between 2017 to 2019 and the outcome below.

Condition	No. Suspected			No Investigated			Lab Confirmed		
	2017	2018	2019	2017	2018	2019	2017	2018	2019
Measles	3	3	0	3	3	0	0	0	0
Yellow Fever	1	4	2	1	4	2	0	0	0
Meningitis	3	6	15	3	0	15	0	0	0
Cholera	2	4	0	2	4	0	0	1	0
Neonatal TT.	0	2	0	0	2	0	0	2	0
AFP	1	5	1	1	5	1	1	0	0
Human Rabies	2	0	1	2	0	1	0	0	0
Acute	0	2	3	0	2	3	0	0	0
Haemorrhagic									
Fevers									

#### **15.6 INFLUENZA SENTINEL SURVEY**

As a sentinel site for influenza, samples from suspected clients have over the years been sent to Noguchi Memorial Institute for confirmation. In 2019, the total influenza-like cases detected went up by 12.3% (from 2163 in 2018 to 1897 in 2019) and out of the 215 samples sent to Noguchi Lab, 19 were confirmed positive. In the same light, 10 of the SARI cases suspected and admitted none of them tested positive. Table 15.6.1 below shows the trend analysis of the influenza cases detected and the outcome over the past four years.

	2016	2017	2018	2019	REMARKS				
INFLUENZA LIKE ILLNESS									
RTI	100	2025	2163	1897	12.3% decr.				
Samples Sent	18	187	86	215	150% incr.				
Positive Cases	0	10	4	19	375% incr.				
SARI									
RTI Admitted	0	76	9	10	11.1%incr				
Samples Sent	0	24	2	10	400%incr.				
Positive Cases	0	1	0	0	-				

#### Table 15.6. 1: Influenza Sentinel Survey

#### **15.7 REPRODUCTIVE AND CHILD HEALTH SERVICES**

The Public Health Unit also provides reproductive and child health services. In 2019, the total number of supervised deliveries among public health clients went down by 4.2% (from 3,160 in 2018 to 3,027 in 2019). The total number of babies BCG vaccine was administered to in 2019 went up by 6.1% (from 3,000 in 2018 to 3,182 in 2019) and the post-natal registrants equally increases by 133.7% (from 1,454 in 2018 to 3,398 in 2019). In the same light, the total number of babies with low birth weight (<2.5kg) also went up by 13.7% (from 423 in 2018 to 481 in 2019). Table 15.7.1 provides detailed analysis below.

Table 15.7. 1: Reproductive and Child Health Services

INDICATOR	2017	2018	2019	REMARKS
Supervised Deliveries	3,055	3,160	3,027	4.2% decrease
BCG	3,190	3,000	3,182	6.1% increase
Post-natal Registrants	1,612	1,454	3,398	133.7% increase
Still Birth	107	118	126	6.8% increase
Maternal Deaths	41	27	28	3.7% increase
Child weight (<2.5KG)	385	423	481	13.7% increase

#### 15.8 FAMILY PLANNING

The hospital generally recorded an improvement in family planning acceptor rate between 2015 and 2019 (from 1575 in 2015 to 2717 in 2019) with 14.7% increase in 2019

compared to 2018 (from 2369 in 2018 to 2717 in 2019). Interestingly, clients are not patronizing the female condom for the past three years (from 2017 to 2019) and the male condom patronage at the institution also dropped significantly by 55.6% (from 266 in 2018 to 118 in 2019). Also, no client opted for Vasectomy procedure in 2019 as compared to the 3 procedures done in 2018. Generally, the patronage of the other family planning commodities such as the injectables and implants etc. went up considerably. In 2019, the short-term family planning couple year protection increased by 26.02% (from 522.9 in 2018 to 658.98 in 2019) whilst the long-term family planning method couple year protection went up marginally by 2.7% (from 1521.6 in 2018 to 1562.5 in 2019). Evidently, there is the need for awareness and public education to be intensified to increase acceptability rate considering the continuous rise in teenage pregnancy and sexually transmitted infections in the region. Detailed trend analysis is provided in tables 15.8.1 to 15.8.2 and figure 15.8.1 below.

Acceptors	2015	2016	2017	2018	2019	Remarks
Condom M	105	258	94	266	118	55.6% decr
Condom F	16	12	0	0	0	-
Copper T	15	29	14	39	45	15.4% incr
Depo Provera	130	297	89	231	299	29.4% incr
Jaddelle	29	45	41	92	111	20.7% incr
Implanon	11	131	45	82	132	61% incr
Cycle Beads	0	0	0	32	20	37.5% decr
Micro G	17	37	22	18	104	Increase
Micro N	9	12	5	40	154	285% incr
Lus	-	7	0	0	0	-
Mini Lap/BTL	72	98	103	94	98	4.3% incr
VASECTOMY	1	0	0	3	0	Decrease
Norigynon	17	6	10	21	55	161.9% incr
Emergency Contraceptives	0	0	0	0	-	-
(Postinor)						
LAM	1157	1138	1256	1454	1581	8.7% incr
Total	1579	2070	1679	2369	2717	14.7% incr

#### Table 15.8. 1: Family Planning Acceptors

	2015	2016	2017	2018	2019	Remarks				
COMODITY	C.Y. P	C.Y. P	C.Y. P	C.Y.P	CYP					
SHORT TERM										
PILL	12.2	15.4	12.7	23.01	76.38					
CONDOM	26.3	37.9	57.3	39.9	84.5					
LAM	289.25	284.5	628.0	363.5	395.25					
DEPO	67.75	125.75	132.0	92.75	97.75					
NORIGYNON	2.25	1.5	3.0	3.2	5.1					
TOTAL	397.75	467.75	833.0	522.9	658.98	26.02% incr.				
		L	ONG TERM							
JADELLE	101.5	150.53	178.5	217.0	192.5					
IMPLANON	27.5	467.5	132.5	169.6	185					
COPPER - T	56	91	63	87.5	77					
BTL	792	1078	1133	1034	1078					
CYCLE	0	0	0	13.5	30					
BEADS		5	<b>.</b>							
TOTAL	977	1787.03	1507	1521.6	1562.5	2.7% incr.				

Table 15.8. 2: Trend of Family Planning Acceptor and CYP

Figure 15.8. 1: Couple Year of Protection (CYP) Per Commodity



#### **15.9 HEALTH PROMOTION ACTIVITIES FOR 2019**

One of the core functions of the public health department is health promotion and awareness creation. These educational activities are normally planned with the target grouped, the locations and mode of delivery with varied topics on immerging health issues. The activity is carried out at the OPD, on radio, TV, community, schools, etc. In 2019, the frequency of health promotion activity at the OPD went up by 32.3% (from 147 in 2018 to 217 in 2019). The Radio and TV discussions frequency equally increased by 31.2% and 24.1% respectively. The community outreaches went up by 96.2% (from 6 in 2018 to 159 in 2019) whilst school health outreach dropped 33.3% (from 32 in 2018 to 24 in 2019). The department also carried out focused client education which saw an improvement by 61.2% (from 502 clients seen in 2018 to 1293 clients in 2019). This is presented in table 15.9.1 and table 15.9.2 below.

ACTIVITIES		REMARKS		
	2017	2018	2019	
OPD Health Talk	144	147	217	32.3%
Radio Discussion	36	64	93	31.2%
TV Discussion	0	41	54	24.1%
Community Outreach	0	6	159	96.2%
School Health Talks	24	32	24	-33.3%
Focus Client Education	226	502	1293	61.2%

 Table 15.9. 1: Health Promotion Activities For 2019

Table 15.9. 2: Health Promotior	n Activities with	h various s	sub-BMCs i	in 2019
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SUB BMC	PROGRAM	NO. OF COMMUNITIES VISITED	NO. OF SCREENED
Surgical	Hernia	12	456
DEENT	DEENT	12	1448
	Eye (Cataract)	159	10,791

#### 15.10 HIV / AIDS CLINIC

Every year, the Public health department conducts regular HIV screening of clients and significant others for early detection and management of the condition and prevention of the spread. In 2019, the total clients screened went up by 162.8% (from 1202 in 2018 to 3159 in 2019). Also, the number of clients who tested positive for HIV in 2019 equally increased by 45.5% (from 167 in 2018 to 243 in 2019). However, the HIV positivity rate dropped to 7.7% in 2019 as compared to 13.89% in 2018.

Evidently, HIV and other communicable infections remain a great concern. As such, health education needs to be intensified in the communities to further reduce the spread. Detailed trend analysis is provided in table 15.10.1 below.

Indicator	2016	2017	2018	2019	Remarks
Total Screened	1951	1718	1202	3159	162.8% incr
No. Positive	176	188	167	243	45.5% incr
Positivity Rate	9.02%	10.94%	13.89%	7.7%	Decrease
No. Initiated in Care	176	188	167	215	28.7% incr
TB Screening	176	188	167	243	45.5% incr
	Early In	fant Diagno	sis for HIV		
Number of Exposed Babies Tested	-	26	59	-	-
Number Babies with results positive for HIV	-	3	2	-	-
Positivity Rate %	-	11.5%	3.4%	-	-

Table 15.10. 1: HIV Diagnosis Summary

# 15.11 PREVENTION OF MOTHER TO CHILD TRANSMISSION (PMTCT) PROGRAMME

The institution through the public health and obstetrics department over the years have been putting in various strategies to prevent the spread of viral infection from the mother to child. In 2019, a total of 802 (1% increase) pregnant women (new ANC registrants) were seen at the ANC clinic and all of them were tested and counselled on HIV as compared to the 794 clients screened in 2018. Four (4) persons tested positive and were duly placed on anti-retro viral therapy as detailed table 15.11.1 below.

Table 15.11. 1: Pregnant Mother to Child Transmission	(PMTCT)
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INDICATORS	2015	2016	2017	2018	2019	REMARKS
Number of ANC Registrants	565	716	748	794	802	1% incr
Number Tested & Received Posttest Counselling	595	716	748	794	802	1% incr
Percentage (%) of Clients Tested	584 (98.2%)	716 (100%)	748 (100%)	100%	100%	
Number Positive	20	4	8	4	4	
Number Positive at 34wks	0	0	2	0	0	
Number Given ARVs	36	6	16	4	4	
Number of Babies on ARVs	20	15	20	-	-	-
Number of EID Tested	58	48	69	59	32	84.4% incr
Number of EID Positive (6wks -18mths)	3	4	10	2	-	-
Given ARVs as Prophylaxis	16	-	-	-	-	-

#### **15.12 POST EXPOSURE PROPHYLAXIS**

Having an exposure to HIV can be very traumatizing to many people and reporting the exposure equally takes a lot of courage considering the general stigma and the fear of the unknown/outcome. HIV prophylaxis is the treatment given to such individuals when the exposure is reported timely to reduce the chances of contracting the disease. Over the past three years, the number of reported cases continue to decline from 27 cases in 2016 to 19 cases in 2019 with 5.6% increase in 2019 (from 18 cases in 2018 to 19 cases in 2019). Although the people in high risk category dropped significantly from 21 cases in 2017 to 3 cases in 2018, it went up to 5 cases in 2019. Among the 5 persons who were at high risk of being infected with HIV in 2019, 2 were as a result of rape. This is presented in table 15.12.1 below.

INDICATORS	2016	2017	2018	2019	REMARKS
Number of Cases Reported	27	24	18	19	5.6% incr
Number at Very Low Risk	7	1	0	7	Increase
Number at Low Risk	6	2	15	7	53.3% decr
Number at High Risk	15	21	3	5(2 Rape)	66.7% incr
Number Positive Outcomes	0	0	0	0	-

#### Table 15.12. 1: Post Exposure Prophylaxis

#### **15.13 TUBERCULOSIS STATISTICAL TREND ANALYSIS**

Tuberculosis is a public health concern and turns to be given all the attention needed by the relevant stakeholders across board. Suspected clients are screened for TB and the clients who tested positive are placed on treatment but once a while some of the clients' default on their treatment and relapse. In 2019, the total normal cases detected increased by 39% (From 154 in 2018 to 214 in 2019). In addition, 28 new cases were registered at the institution whereas 161 cases were referred to other DOT centers. The institution in 2019 started audiometric assessment for TB clients. Out of the 44 persons screened, 15 were found to have severe to profound hearing loss. In addition, digital chest x-ray examinations were done for a total of 375 persons in 2019. The detailed trend analysis is provided in table 15.13.1 to 15.13.3 below.

Table 15.13. 1: Tuberculosis Case Detection Trend Analy	/sis
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INDICATOR	2017	2018	2019	REMARKS
Total Normal Cases	137	154	214	39% increase
Detected				
MDR Cases	0	5 (4+1PXDR)	3(2+1PXDR)	40% decrease
Total Referred	96	102	161	57.8% increase
Total Registered	39	45	28	37.8% decrease

Months	Total	Pulm. TB.	EPTB	TOTAL	Referred	Registered	Un Reported
							Deaths
January	19	16	3	19	18	1	0
February	27	20	7	27	23	2	2
March	13	10	3	13	8	0	5
April	23	18	5	23	18	3	2
May	16	13	3	16	14	0	2
June	16	12	4	16	14	0	2
July	15	12	3	15	9	3	3
August	19	19	0	19	15	1	3
September	14	12	2	14	8	5	1
October	22	19	3	22	14	6	2
November	22	18	4	22	13	7	2
December	8	8	0	8	7	0	1
SUMMARY	214	177	37	214	161	28	25

Table 15.13. 2: TB Case Detection by Months in 2019

Table 15.13. 3: Yearly Cohort Analysis of Registered Cases from 2017 to 2019

CATEGORY OF CASES	2017	2018	2019
New Smear positive	4	11	11
Smear negative	23	16	16
Extra Pulmonary	8	12	1
Relapse	0	0	0
Return after Defaulter	1	2	0
TTT after failure	0	0	0
Other previously	1	1	0
Total cases	37	45	-
	Outcomes		
Cured	5	4	-
Treatment completed	25	26	-
Died	3	10	-
Treatment fail	0	3	-
Default	4	0	-
Loss to follow	0	3	-
Cure rate%	100%	-	-
Treatment success%	81.0%	-	-

CASES			NUMBEF	REMARKS	
		2017	2018	2019	
Adult	Males	59	43	75	74.4% increase
	Females	29	40	53	32.5% increase
Paediatrics	Males	5	12	21	75% increase
	Females	6	7	12	71.4% increase
Total		99	102	161	57.8% increase

 Table 15.13. 5: Audiometric Assessment for TB Management in 2019

Classifica	tion	Normal Hearing	Mild Hearing Loss	Moderate Hearing Loss	Severe – Profound Hearing Loss
Total	44	8	15	6	15
Remark			The injections days for the patients in this category was alternated		The injection was stopped

#### Table 15.13. 6: Digital Chest X-ray for TB Management in 2019

ACTIVITY	NUMBER
X-rays done	375
Suggestive of TB	44
Percentage Suggestive of TB	11.7%

### CHAPTER SIXTEEN

### PHARMACEUTICAL SERVICES

#### **16.1 INTRODUCTION**

The pharmacy is headed by a Director with the mandate of coordinating continuous availability of medicines in the management of patients. The directorate provides services at OPD, Polyclinic, ward and 24-hour emergency and retail services to promote access to all categories of medicine to all regardless of it being covered by NHIS or not.

# 16.2 PHARMACY DIRECTORATE'S 2019 PERFORMANCE AGAINST CCTH STRATEGIC OBJECTIVES

 Table 16.2. 1 Pharmacy Directorate's 2019 Annual Performance Against CCTH

 Strategic Objectives

2019 ANNUAL OUTCOME AND OUTPUT PERFORMANCE						
CCTH Objective 1: INCREASE THE SCOPE AND IMPROVE THE QUALITY OF SERVICES						
Access and Quality Outcome	2016 Annual	2017 Annual	2018 Annual	2019 Annual	2019 Target	Remarks / % Diff.
i. % Tracer Drug Availability	84.8%	96.1%	96.1%	88.5%	100%	Decr.
ii. Prescription to pharmacy ratio	13,491:1	13,511:1	16,097:1	8,288:1	-	Decr.
iii. Percentage antibiotic prescribed	13.5%	15.2%	18.4%	16.18%	-	Decr.
iv. Percentage Injectable	1.6%	1.8%	6.3%	5.8%	-	Decr.
v. Utilization of Pharmaceutical Care interventions	-	79.2%	97.3%	99%		Incr.
	Pharmac	eutical serv	vice Output	•		
1. Created an emergency of	lrug stocks i	n all wards				
CCTH OBJECTIVE 2: RED	JCE COMM	UNICABLE	AND NON-C	COMMUNIC	ABLE DIS	SEASES
	Pharmac	eutical serv	vice Output			
		-				
CCTH OBJECTIVE 3: IMPRO MANAGEMENT SYSTEMS	VE GOVER	RNANCE, F	RESOURCE	(HUMAN	& FINANC	CIAL) AND
3.1 Improve on Governance and Management System						
	Pharmac	eutical serv	vice Output			
		-				
3.2 Improve on Human Resou	rce and Ma	nagement S	System		T	
	Actual Performance Trend 2019 Remarks					
Output	2016	2017	2018	2019		
•	Annual	Annual	Annual	Annual		
i. Doctor to pharmacy ratio is still high	10.3:1	12.6:1	15.1:1	8.5:1	-	Decr.
ii. Prescription to pharmacy ratio	13,491:1	13,511:1	16,097:1	8,288:1		Decr.
Pharmaceutical service Outpo	It					
1. Ten (10) Pharms and one (1) Pharm Technician recruited						

#### 2019 ANNUAL OUTCOME AND OUTPUT PERFORMANCE

3.3 Improve on Finance Resou	rce and Ma	anagement S	System			
	A	ctual Perfor	mance Trer	nd	2019	Remarks
Access and Impact	2016	2017	2018	2019	Target	/
	Annual	Annual	Annual	Annual		% Diff.
i. Total Drug Income GH¢	3,874,68	4,591,57	5,962,67	5,747,49	6,500,0	3.6%
	9	6	9.10	5	00	decr.
	Pharmac	eutical serv	ice Output			
		-				
OBJECTIVE 4: IMPROVE HE	ALTH RES	EARCH, TE	ACHING A	ND EXCEI	LENCE I	LEARNING
4.1 Improve on Research:						
Pharmaceutical service Output						
-						
4.2 Improve on Teaching and Learning:						
Pharmaceutical service Output						
1. Organize training Worksh	op for all P	receptors	-			
2. 2 clinical meetings held e	very month	•				
<b>OBJECTIVE 5: INTENSIFY S</b>	UPPORT 1	O THE LO	WER LEV	EL OF CA	RE AND	SERVICE
DELIVERY POINTS						
Pharmaceutical service Output						
-						
OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF						
QUALIT T SERVICE						
	Pnarmac	eutical serv	ice Output			
-						

#### 16.3 RATIONAL USE OF MEDICINE (RUM)

Globally, the inability for people to use medicines rationally is of great concern. Medicines are either inappropriately prescribed, dispensed, misused, overused or underused leading to scarcity or health hazards. There is also the problem of "poly pharmacy" etc. The rational use of drugs requires that patients receive medicines appropriate to their clinical needs, in doses that meet their own individual requirements, for an adequate period and at the lowest cost to them and the community, (WHO 2019 and WHO,1988).

RUM survey has been conducted regularly in CCTH over the past years as a collaboration between Drug and Therapeutics Committee and the Pharmacy Directorate. Results are usually disseminated to all clinical staff and measures are put in place to improve on the performance.

#### 16.3.1 RUM SURVEY FINDINGS

The findings from prescriber indicator following the RUM survey indicates that, in 2019, the percentage of antibiotics prescribed decreased from 18.4% in 2018 to 16.18% in 2019 whilst the percentage of injectables prescribed also marginally dropped from 6.3% in 2018 to 5.8% in 2019. The survey also revealed that the average waiting time at the pharmacy

increased slightly from 30.6 mins in 2018 to 30.8 mins in 2019. Table 16.3.1.1 below provides a trend analysis.

Rum Prescribing	2016	2017	2018	2019	Remarks
Average consulting time	13.2 mins	14.1 mins	15.7 mins	-	-
Av dispensing	60.2 secs	61.5	99.2 secs	75 sec	Decr.
communication time					
Average waiting time	-	-	30.6 mins	30.8mins	Incr.
% Generic prescribed	81.9	94.2	84	-	-
% Antibiotics prescribed	13.8	15.2	18.4	16.18	Decr.
% of injectable prescribed	1.6	1.8	6.3	5.8	Decr.
% of medicines prescribed	98.2	98.4	90.3	-	-
from EDL					
% of medicines adequately	75.9	78.6	89.5	89.9	Incr.
labelled					
% with knowledge of	90.1	92.3	88.9	77.9	Decr.
correct dosage regimen					

Table 16.3.1. 1: RUM Survey Result - Prescriber Indicator

Under the dispensing Indicator, the survey shows that, average dispensing communication time dropped from 99.2 seconds in 2018 to 75 seconds in 2019. Over the past four years, the percentage of medications labelled before dispensed improved from 75.9% in 2016 to 89.9% in 2019. However, the percentage of tracer drug availability dropped from 96.1% in 2018 to 88.5% in 2019. Table 16.3.1.2 provides detailed trend analysis below.

Table 16.3.1. 2: RUM Survey Result - Dispensing Indicators

RUM Patient Care	2016	2017	2018	2019
Indicators				
Av dispensing comm time	60.2 secs	61.5	99.2 secs	75 sec
Av waiting time	-	-	30.6 mins	30.8mins
% of tracer drug availability	84.7%	96.2%	96.1%	88.50%
% of medicines adequately	75.9%	78.6%	89.5%	89.9%
labelled				
% with knowledge of correct	90.1%	92.3%	88.9%	77.9%
dosage regimen				

#### **16.4 PERFORMANCE TRENDS INDICATORS**

The total number of prescriptions served in 2019 went up significantly by 23.6% from (from 120,756 in 2018 to 149,294 in 2019). Compared to the other pharmacy outlets, the ward pharmacy recorded a slight decrease of 0.5% in the number of prescriptions served (from 8,584 in 2018 to 8,539 in 2019). Further, the pharmacists to prescriptions ratio improved in 2019 from 1:16,097 in 2018 to 1:8,288 in 2019. However, evidently, the pharmacy department still have inadequate staff, hence the increasing workload. Table 16.4.1 to table 16.4.2 and figure 16.2.1 provides detailed trend analysis below.

#### Table 16.4. 1: Performance Trends Indicators

Indicator	2016	2017	2018	2019
% Tracer Medicines Avail.	84.78%	96.15%	96.1%	88.5%
Clinical Pharmacy Practice on Wards	70%	90%	90%	-
No of Drug Bulletins issued	6	6	6	24
No of Students trained	18	41	30	
Total no of prescriptions served	-	109,557	144,882	149,294
No of Researches conducted	2	2	2	-
Prescriptions to Pharmacists ratio	-	13,694:1	16,097:1	8,288:1

## Table 16.4. 2: Two-Year Trend of Prescriptions Served By Various Pharmacy Outlets

PRESCRIPTIONS SERVED	2018	2019	REMARKS
Out-Patient Dept. (OPD) Main	25,344	26,944	6.3% increase
Out-Patient Dept. (OPD) Annex	18,804	21,895	16.4% increase
Accident & Emergency	31,152	33,964	9% increase
In-Patient/Ward Pharmacy	8,584	8,539	0.5% decrease
24hour Pharmacy	36,872	57,952	57.2% increase
Total	120,756	149,294	23.6% increase
Pharmacists to Prescriptions Ratio	1: 16,097	1: 8,288	Decrease

## Figure 16.4. 1: Two-Year Trend of Prescriptions Served By Various Pharmacy Outlets



#### 16.5 ANTI-RETRO VIRAL THERAPY (ART)

The total clients served with ART at the pharmacy in 2019 was 5,520. Averagely, 460 clients were attended to daily. Also, 55 exposed HIV babies were served with prophylaxis. Out of the 84 adults served with post-HIV prophylaxis, 27 of the cases were due to needle pricks, 10 were due to rape, 3 cases due to defilement, and 3 were splash blood or body fluid. In 2019, a total of 5,520 HIV clients were served with anti-retro viral therapy. The average number of the HIV clients seen were 460. In addition, 55 babies exposed to the HIV infection were given prophylaxis. Further, among the 43 patients who were given post exposure prophylaxis, 23 were due to needle prick. Details provided in table 16.5.1 and figure 16.5.1 below.

INDICATOR	NUMBER
Attendance (Total no. of Clients)	5,520
Av. number of Client Seen per month	460
New Adults	84 (22 males 62 females)
No. of Children below 14yrs put AVR drugs	6 (2 males and 4 females)
No. of HIV exposed babies given prophylaxis	55
No. of post exposure prophylaxis	43

Table 16.5. 1: Summary of Performance - Anti-Retro Viral Therapy (ART)





## CHAPTER SEVENTEEN CHALLENGES, MITIGATING STRATEGIES AND

### CONCLUSION

#### Table 17. 1: CHALLENGES AND MITIGATING STRATEGIES

KEY CHALLENGES	MITIGATION STRATEGIES
High Institutional Maternal Mortality and Neonatal Deaths (Macerated Death)	Dialogue with GHS to support periphery referring facilities through training and MOs support
Delay in NHIS reimbursement	Continuous dialogue with NHIA
Illegal sale, development and encroachment of hospital lands	To rectify and wall of encroachers on CCTH Lands
Inadequate Staff Accommodation	Pursue the PPP agreement for the construction of 270 accommodation units
Inadequate and ageing equipment eg. Medical Oxygen Plant, Power Generators, Laundry and CSSD equipment, etc.	Lobby MOH for replacement of obsolete equipment and machinery (Laundry, CSSD, Generator Sets, Oxygen Plants,). New Oxygen plant acquired Currently, arranged with Air-liquid for the supply of oxygen bottles
Absence of NICU	Additional equipment to make the current SCBU more operational / Construction of a modern NICU
Absence of a Relative Hostel	Pursue PPP & Gov't completion of Ghana @ 50 hostel started
Overcrowding, congestion and inadequate triage space at the Accident & Emergency ward	Expansion of A & E to the level of Teaching Hospital
MRI machine still not functioning and handed over for service after 4 years	Get AGVAD contractors to repair and hand over MRI from MOH

#### **17.2 CONCLUSION**

The institution in 2019 saw improvement in its overall performance in the midst of challenges. These includes, the increase of 6.3% in the OPD attendance from 158,164 in 2018 to 168,056 in 2019, the increase of 29.2% in the total number of surgeries performed (From 3,728 in 2018 to 4,815 in 2019). In addition, the institution introduced 25 new laboratory investigations thereby reducing the number of cases referred to other competing laboratories. Also, the institution. In the same light, numerous challenges were faced. Such as, the high neonatal and infant mortality rate and high stillbirth rate Other key infrastructure and equipment challenges includes, absence of Neonatal Intensive Care Unit; Challenge with the Accident and Emergency Centre, Inadequate accommodation for staff; Inadequate and ageing equipment, etc. However, the hospital plan to apply a holistic and targeted strategic approach in addressing the gaps identified to improve on performance in the next medium-term strategic plan (2020 to 2021) with the receipt of the needed support from all stakeholders across board.

