CAPE COAST TEACHING HOSPITAL, GHANA



2018 PERFORMANCE REPORT

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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.	ССМН	-	Cape Coast Metropolitan Hospital
12.	ССТН	-	Cape Coast Teaching Hospital
13.	CEO	-	Chief Executive
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.	L FT	_	Liver Functioning Test
56.	KFT	_	Kidney Functioning Test
57.	M&F	_	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 65	MSB	_	Macerated Still Birth
66 66	MTEE	_	Medium Term Expenditure Framework
67	NACP	_	National AIDS Control Programme
68	NAS	_	National Ambulance Service
60. 60		_	Non-Communicable Disease
70 70	NGO	_	Non-Covernmental Organizations
70.		_	National Health Insurance Authority
71. 72		-	National Health Insurance Schome
72.		-	Noopatal Intensive Care Unit
73.		-	Obstatrice and Cynacoology
74. 75		-	Obstetrics and Gynaecology
75.		-	
70. 77		-	Dui-patient Department
70 //		-	Prevention of Mother to Child Transmission
70. 70		-	Prevention of Mother to Child Transmission
79.		-	Postnatal Clinic
80.		-	Planned Preventive Maintenance / Measure
δI. 00		-	Policy Planning Monitoring and Evaluation
82.	PPP	-	
83.	QA	-	Quality Assurance
84.	RCH	-	Reproductive and Unite Health
85.	RII	-	Respiration Fract Infection
86.	RUM	-	Rational Use of Medicine
87.	RVI	-	
୪୪. ୦୦	SAIS	-	
89.	SB	-	
90.	SBS	-	Sector Budget Support
91.	SCRO	-	Special Care Baby Unit
92.	SIL	-	Service Improvement Levy
93.	SMS	-	School of Medical Science

94.	SMO	-	Senior Medical Officer
95.	SOP	-	Standard Operative Procedures
96.	STI	-	Sexually Transmitted Infections
97.	SVD	-	Spontaneous Vagina Delivery
98.	ТВ	-	Tuberculosis
99.	U5MR	-	Under-Five Mortality Rate
100.	UCC	-	University of Cape Coast
101.	UTI	-	Urinary Tract Infection
102.	WHO	-	World Health Organization
103.	WINS	-	Work Load Indicator for Staffing Norm

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The hospital is also grateful to the following organizations, agencies and institutions below for contributing to the successes of the hospital.

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- Regional Coordinating Council, Central Region
- Health Donors & Partners (Local and International)
- Regional Health Administration, GHS, Central Region
- University of Cape Coast School of Medical Science
- Board & Management of CCTH
- Hardworking staff of CCTH
- All other institutions / stakeholders
- Patient Groups (Diabetic Association, Sickle Cell Associations etc.)

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• Press

Sincere thanks to the Annual Performance Review Planning Committee Members below for their role and contributions.

- Mrs. Sophia Blankson
- Mr. Moses Agbeko
- Dr Robert Incoom
- Dr Stephen Laryae
- Mr. Ken Yao-Dablu
- Mr. Robert Jirapa
- Ms. Esther Torbi
- Ms. Grace Quaye
- Mr. Fred Nyankah

- Director of Nursing Services
- Deputy Director of Finance
- Deputy Director Pharmacy
- Head of Clinical Services
- Head, Technical Service Sub-BMC
- Head, Health Information Management
- Head, General Administration
- Business Manager Child Health
- Public Relations Officer

WORKING GROUP

Mr. Fred Mensah-Acheampong	-	Director of Administration
Ms. Princess Gloria Ofori	-	Head, Research, Monitoring and Evaluation
Mr. Moses Agbeko	-	Deputy Director of Finance
Mr. Kafui Akpedonu	-	Head, Policy Planning and Budget
Mr. Alidu Abduli	-	Deputy Director Human Resource
Mr. Robert Jirapa	-	Head, Health Information Management Unit
Ms. Priscilla Araba Etuah	-	Health Planning Officer – RME Unit

MESSAGE FROM THE CHIEF EXECUTIVE OFFICER



AG. CEO - DR. ERIC KOFI NGYEDU

Performance measuring is an important way of determining whether institutional goals are being achieved in line with the mandate, mission and vision. The year 2018 marked the third year of implementation of the Hospital's 2016-2019 Medium-Term Strategic Plan. The purpose of periodic evaluation of the hospitals operations is to determine whether the strategic objectives under the medium-term strategic plan are being met. The evaluation process helps in determining whether progress is being made on the medium-term objectives and changes that need to be effected to improve on performance. Thus, by determining the relevance, quality, efficiency, effectiveness as well as sustainability of outcomes and impact of service delivery.

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. Generally, total staff at the hospital improved by 0.4%, from 1,320 in 2017 to 1,325 in 2018. Consultant to resident doctor ratio improved from 1:3 in 2017 to 1:1 in 2018. Doctor to Nurse and Midwife ratio increased from 1:21 in 2017 to 1:24 in 2018.

Generally, the hospital's performance was measured under the agreed Teaching Hospitals' key performance indicators. Through a committed and collective efforts of the staff, outputs from the various Units and Sub-BMCs translated into high performance of some of the indicators. For instance, the hospital in its quest to improve on the quality of service, introduced Electronic Health Record (E-Health) System which resulted in the reduction of patients waiting time from 2hrs in 2017 to 1hr:36 Sec (from entry to exit at pharmacy) in 2018. Also, the Hospital recorded a significant reduction of fresh still births by 45.3% and reduced maternal deaths by 34.1%.

Furthermore, under family planning, couple year protection improved from 1,507 to 1,521.6. There was also a reduction in the out-patient services Access to operating theatre in the hospital improved significantly by 34% over the previous year. Total laboratory investigations increased by 3.3% whilst radiology investigations increased by 19.7% over the previous year. Percentage tracer drug availability however, decrease from 96.15% in 2017 to 96.10% in 2018. Evidence of decline in performance are as follows; Percentage of clients satisfied with services decreased by 9.1%, from 96.8% in 2017 to 87.2% in 2018. The hospital's ability to reduce child mortality indicators remains a major

challenge, for instance, in 2018, Macerated Still Birth increased by 64.8% from 54 deaths in 2017 to 89 deaths in 2018. However, fresh still births rate reduced.

To improve on the quality of services at the hospital, some initiatives were introduced. An example is, the introduction of cubical nursing and nursing teams to match medical teams in order to improve on total nursing care on the wards. Further, the hospital submitted funding proposals to a number of corporate organisations in the country for support towards the construction of a Neonatal Intensive Unit (NICU) .Also, the hospital continues to improve on the knowledge and skills capacity of staff through collaborative in-service training in all disciplines to improve on performance outcomes. Additional infrastructural were also provided so as to improve on service delivery. These include, the completion and operationalization of a mothers' hostel (with support from Mr. Anokye Yeboah – a philanthropist), completion and operationalization of the Obstetrics & Gynaecology Emergency Centre, to mention a few.

Some of the key issues confronting the hospital of which support is required includes, delay in NHIS reimbursement which is hindering performance, inadequate Staff accommodation, inadequate and ageing equipment (e.g. power generators, Laundry and CSSD equipment, laboratory equipment, etc.), absence of NICU, absence of a relatives Hostel, inadequate triage space at the Accident & Emergency department, the non-functioning of the MRI machine for 4 years now following installation, as well as illegal sale, development and encroachment of the hospital lands.

Evidently, more needs to be done to attain and sustain the targets set under the 2016-2019 medium-term strategic plan. Also, there is the need for a holistic and targeted evidence-based approaches to be identified and implemented with a well-trained, skilled, committed and motivated workforce. With the continuous support from all stakeholders, the mission and vision of the hospital will be achieved for the betterment of all. Thank you.

DR. ERIC KOFI NGYEDU AG. CHIEF EXECUTIVE OFFICER

PREFACE

The 2018 annual performance review conference of the Cape Coast Teaching Hospital was held on the 8th of March 2019 at the CCTH Lecture Hall. The purpose was to take stock of the 2018 performance, identify and discuss key issues that would lead to the identification of strategies geared towards the achievement of the set targets under the medium-term strategic objectives. The event was attended by the Hospital Board, the Hospital Unit Heads and Sub-BMC Management teams, Representatives from the Ministry of Health, Ghana Health Service - Head office, Korle-Bu Teaching Hospital, Komfo Anokye Teaching Hospital, UCC-SMS, Security Service Commanders and the Community leaders. The presentations at the event focused on the 2018 priorities of the hospital. These include;

- 1. Improve quality of service
- 2. Improve on governance and leadership
- 3. Improve access to essential and specialist medicines
- 4. Improve Human Resource Base
- 5. Improve Nursing care management
- 6. Improve financial management / audits
- 7. Improve on health technology
- 8. Improve inter-sectoral collaboration
- 9. Improve on research, training and education of human resource for health

The content of the report is categorized into four sections with sixteen chapters.

- Section 1: It includes the chapter 1 with introduction, background to the report and the overall summary of performance of the hospital in-line with each medium-term strategic objective.
- Section 2: it comprises of chapters 2 to 6. Highlights the performance of the hospital under human resource, clinical care services, technical and general service as well as finance. It also points out the hospital's state of collaboration and support system.
- Section 3: it contains chapters 7 to 15. Provides a detailed performance of the sub-BMCs/Units.
- Section 4: it contains the chapter 16 and outlines the hospital's challenges and mitigating strategies as well as the conclusion.

SECTION 1

CHAPTER ONE

INTRODUCTION

1.0 BACKGROUND

As a Teaching Hospital, performance evaluation is essential. The Cape Coast Teaching Hospital has a medium-term strategic plan (2016 to 2019) and the 2018 is the third-year into its implementation. To determine whether performances are in line with the set objects of the hospital and that of the ministry of health priorities, annual evaluations are carried out. The purpose is to determine the effectiveness of the hospital strategies and outcomes and whether the strategies need review or replacement towards achieving the set goals under the medium-term objectives. This report is a summary of 2018 performance of the hospital, which is the aggregation of reports from the various Sub-BMCs/Units in line with the strategic objectives of the hospital. Also, the report determines the key gaps and challenges that hinders on performance with some mitigating strategies to address them. It also serves as a guide for evidenced-based policy decision-making and planning purposes at all levels and also serves as an information reference document for health research, geared towards improvement of the health systems.

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 facility in the Central Region of Ghana. With a current bed capacity of 400, the facility 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 21st 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 4th 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

CLINICAL SERVICES					
GENERAL CLINIC	AL CARE SERVICES				
1. General / Family Medical					
Accident & Emergency Care					
1. Wound Care Clinics					
3. General Paediatric Clinic					
SPECIALISED CLINI	CAL CARE SERVICES				
A. Internal Medical Clinics	B. Surgical Services				
1. Intensive Care Services	2. General surgery clinic				
	 Thyroid & Breast (cancer & 				
	chemotherapy)				
Diabetic & Hypertension	4. Uro-Surgical Clinics				
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. Paediatric surgical clinic				
5. Hepatitis Clinic	E. DEENT Services				
6. Cardiology Clinics	1. Dental & Maxillofacial Clinic				
7. Haemodialysis services	2. Eye Care				

CLINICAL SERVICES						
F. Public Health Services	G. Ear, Nose and Throat clinic					
1. Child Welfare Clinic	H. Obstetric & Gynaecological Services					
2. Family Planning	 Obs & Gynae emergencies 					
3. HIV Counseling	2. Antenatal clinic					
4. TB Dot Centre	3. Post-natal clinic					
5. Adolescent Clinics	4. Gynaecology clinic					
I. Rehabilitation Services						
1. Physiotherapy						
2. Diet Therapy						
3. Clinical Psychology						
4. Speech Therapy						
CLINICAL INVESTI	GATION SERVICES					
J. Imaging	K. Laboratory Services					
1. MRI	1. Haematology					
2. CT Scan	2. Serology and Immunology					
3. Fluoroscopy	3. Pathology					
4. Mammography	4. Biochemistry					
	5. Microbiology					

1.4 PRIORITIES FOR 2018

- 1. Improve quality of service
- 2. Improve on governance and leadership
- 3. Improve access to essential and specialist medicines
- 4. Improve Human Resource Base
- 5. Improve Nursing care management
- 6. Improve financial management / audits
- 7. Improve on health technology
- 8. Improve inter-sectoral collaboration
- 9. Improve on research, training and education of human resource for health

1.5 SUMMARY OF 2018 CCTH PERFORMANCE UNDER THE STRATEGIC OBJECTIVES

The hospital's performance for 2018 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.

	2018 OUTCOME AND OUTPUT PERFORMANCE					
CCTH	I Objective 1: INCREASE THE SCOPE AND IMPROVE TH	IE QUALI	TY OF SE	RVICES		
	HOSPITALWIDE LE	EVEL				
		tual	2018	Remarks		
	Access and Impact	2017	2018	Target		
				_		
i.	Institutional Death decrease by 2.4%	1148	1120	-10%		
ii.	Institutional death rate increased by 0.23%	9.12	9.35			
iii.	Theatre and Recovery Wards Deaths Rate reduced by 0.1%	0.4%	0.3%			
iv.	Low birth rate increased by 0.5%	13%	13.5%			
٧.	Stillbirth rate (/1000LB) increased	34	36			
vi.	Total Fresh Still birth decreased by 45.3%	53	29			
vii.	Total Macerated Still Birth increased by 64.8%	54	89			
viii.	Institutional Maternal mortality ratio improved (/100,000LB)	1335	860			
ix.	Number of institutional maternal deaths decreased by 34.1%	41	27	-50%		
Х.	Couple year protection has 1% increase	se 1507 1521.6		+5%		
xi.	Institutional infant mortality rate (/1000LB) increased	65	69			
xii.	Institutional neonatal mortality rate (/1000) increased	59	63			
xiii.	Total neonatal deaths increased by 9.4%	180	197	-10%		
xiv.	Total infant death increased by 7.5%	201	216			
XV.	Under-five mortality rate (/1000LB) increased	71	77			
xvi.	Total under-five death increased by 10.5%	219	242			
		Actual		2018		
				Target		
	Access and Quality Outcome	2017	2018			
xvii.	Percentage of clients satisfied with overall services at the facility decreased by 9.1%	96.8%	87.2%			
xviii.	Percentage of clients satisfied with services at OPD increased by 0.6%	86.7%	87.3%			
xix.	Patients with health insurance increased by 20.9%	109,28	132,16			
		0	2			
XX.	Patients without Health insurance increased by 203.4%	8574	26002			
xxi.	Access to OPD Services Improved by 34%	117,85	158,16	+ 8%		
		4	4			
xxii.	Referrals –In decreased by 2.2% decrease	4,386	4,292			

 Table 1.5. 1: Summary of 2018 Performance Under the Strategic Objectives

	2018 OUTCOME AND OUTPUT PERFORMANCE						
xxiii.	OPD cases seen per doctor improved	1:1034	1:716				
xxiv.	OPD Cases seen per specialist increased	1:1676	1:2224				
XXV.	Percentage of Staff satisfied with working conditions	55.9%	36.5%				
	decreased by 19.4%						
xxvi.	Patients admission decreased by 5.1%	11444	10865	+5%			
xxvii.	Average Length of stay increased marginally	5.1	5.2				
xviii.	Percentage of patients admitted due to external referrals	35%	25.8%				
	decreased by 9.2%						
xxix.	Percentage of neonatal admissions due to external	28%	26.1%				
	referrals decreased by 1.9%						
XXX.	Percentage of maternal admissions due to external	49%	41.4%		1		
	referrals decreased by 7.6%						
xxxi.	Nurse and Midwife admission ratio improved slightly	1:21	1:20				
xxxii.	Percentage bed occupancy reduced by 2%	53%	51%				
xxiii.	Average length of stay (Proxy-C/S, Appendectomy,	4.0	5.2				
	severe malaria in children) increased						
xxiv.	Average length of stay at the Emergency ward increased	2.8	4.2				
xxxv.	Total surgical operations decreased by 3.2%	3853	3728	+10%			
xxvi.	Surgeon to surgery ratio declined	1:148	1:139				
xxvii.	Total deliveries increased by 3.4%	3055	3160	+5%			
xviii.	Delivery to midwife ratio increased slightly	1:29	1:30				
xxix.	Caesarean section rate increased by 7%	40%	47%				
xl.	% Tracer Drug Availability decrease by 0.05%	96.15%	96.10%	+100%			
xli.	Prescription to pharmacy ratio increased	1:1517	1:1609				
		7	7				
xlii.	Percentage antibiotic prescribed increased by 3.2%	15.2%	18.4%				
xliii.	Percentage Injectable prescribed increased by 1.8%	1.8%	3.6%				
xliv.		「 <u> </u>					
xlv.							
xlvi.	Utilisation of laboratory services		361%				
xlvii.	Total lab. Investigation increased by 3.3%	266,63	275,32				
		5	9				
xlviii.	Utilisation of radiological services	-	342%				
xlix.	Radiology investigation increased by 19.7%	17342	20766				
	Outputs						
1.	100% utilization of LHIMS software (E-Health system)						
2.	Introduced nursing teams to medical teams to improve on	total nursi	ng care on	the wards	<u>s (e.g. O&G).</u>		
3.	Developed a funding Proposal for corporate Ghana suppo	rt toward t	he constru	iction of a	NICU (waiting)		
4.	Built capacity at the delivery suite theatre and made fully f	unctional					
5. 6	Introduced speech therapy services	from ont		+ sharman			
0. 7	Reduction of patients waiting time from zrifs to million dec	; (Ifom enu	ly to exit a	t pharmac	y)		
/.							
1	Distance wave developed and displayed at every unit	S-BIVIC					
1.	Four (4) screeps have been provided to improve the private	cy in the c	onsulting r	00000			
2.	Conducted two peer reviews at the OPD ground and 1 st flo	or	Jisuling h	001115			
4.	Appointment and review cards have been sustained and if	t is onaoin	a.				
5.	Regular training of staff on customer care	<u> </u>	<u> </u>				
6.	Improvement on colour coding triaging towards reduction						
7.	Appointed a QA focal person in charge of quality care, infe	ection prev	ention and	l occupatio	onal health and		
	safety (OHS) issues						

2018 OUTCOME AND OUTPUT PERFORMANCE					
	ACCIDENT AND EMERGENCY SUB-BMC				
1.	Pain management protocol disseminated to A&E staff				
2.	Improved on colour coding triaging system				
3.	Regular training of staff on cardiopulmonary resuscitation				
	DIAGNOSTICS SUB-BMC				
1.	The laboratory participated in EQA for TB, Malaria and HIV.				
2.	The laboratory department did presentations in O&G and Pharmacy departments				
3.	The Pathology unit was able to secure burial clearance to burry all unclaimed/unknown bodies deposited				
	in the morgue by the Police and other departments.				
	MATERNAL HEALTH SUB-BMC				
1.	Conducted monthly maternal mortality conference and Audited all maternal deaths				
2.	Conducted Joint perinatal mortality audits with Child Health				
3.	Kangaroo mother care (skin to skin) practice immediately after delivery was intensified				
4.	Continue to utilise WHO safe childbirth checklist and discharge plan				
5.	Continuous customer care talks at morning meetings				
	CHILD HEALTH SUB-BMC				
1.	Audited 95% of all neonatal deaths				
	INTERNAL MEDICINE SUB-BMC				
1.	Created the High Dependency Unit for critically ill patients				
2.	Provided regular training to staff on critical care				
	SURGICAL SUB-BMC				
1.	Continues utilisation of surgical safety checklist at the Theatre and Recovery.				
2.	Standard precautionary and preoperative protocols were developed and displayed at vantage point				
	PUBLIC HEALTH SUB-BMC				
1.	Improved on immunization services				
2.	Successful inclusion of IPV to routine vaccines				
3.	Conducted regular health education, counselling and screening services to clients				
PHARMACEUTICAL SERVICES					
1	The Clinical Pharmacy practice covered 90% of the wards				
2.	Pharmacovigilance and Adverse Drug Reporting (ADR) were disseminated to all new CCTH clinical staff				
	and ADR forms provided in jackets to wards and consulting rooms.				
3.	Emergency Medicines Stocks (Ward Stocks) were reorganized and supplied to all needed wards				
4.	The Main Pharmacy and 24Hour Retail Medicine Stores were insured against fire by SIC.				
ССТН	OBJECTIVE 2: REDUCE COMMUNICABLE AND NON-COMMUNICABLE DISEASES				
	HOSPITALWIDE LEVEL OUTPUTS				
1.	Conducted regular training for staff on infection prevention and control practices				
2.	Conducted monitoring exercises to ensure quality and reduction of hospital acquired/cross infection				
3.	Improved water distribution within the hospital				
4.	Conducted screening exercises for staff (e.g. Hepatitis and eve screening)				
5	Collaborated with UNDP to manage and segregate waste appropriately at the facility				
0.					
2	Carried out regular health education on disease prevention, control and management to OPD clients				
a. h	Carried out regular freath education on disease prevention, control and management to OFD clients				
D.	Provided a veronica bucket with water and soap to promote regular hand washing by patients				
	A&E SUB-BMC				
	-				
	DIAGNOSTICS SUB-BMC				
	-				
	MATERNAL HEALTH				
1.	Two infection prevention and control workshops organized				
2.	Conducted regular Sterilization of babies cot sheet, and green towels for new born babies				
	CHILD HEALTH SUB-BMC				
1.	Carried out daily health education to mothers at the special baby care unit (SCBU) and paediatric ward				

		2018 OUTCOME AND OUTPUT PERFORMANCE				
2.	 Produced customised educational videos for regular health education purposes(e.g. 2 videos were locally produced by staff on band bygiene and putrition) 					
1.	Organia	zed regular training on infection prevention and control practices to staff				
2	Enforce	ed waste management and segregation protocol on the wards				
<u> </u>		SURGICAL SUB-BMC				
1.	Enforc	ed waste management and segregation protocol on the wards				
2.	Infectio	In Prevention and Control, protocol displayed appropriately at all the wards and duly enforced				
3.	130 pa	tients were screened for breast cancer at the female surgical ward				
4.	Genera	al ward cleaning was strengthened to prevent infections				
		PUBLIC HEALTH SUB-BMC				
1.	Detectio	on/diagnosis of tuberculosis (TB) increased				
		PHARMACEUTICAL SERVICESY				
1.	Increase	ed production of Liquid soap at the facility				
		CTIVE 3: IMPROVE GOVERNANCE, RESOURCE (HUMAN & FINANCIAL) AND				
3.1 Imr		n Governance and Management System				
0.1 111		HOSPITALWIDE LEVEL OUTPUTS				
1.	Five (5)	CCTH Board meetings held (schedule is Bi-Monthly)				
2.	Seven (7) Management Meetings held (schedule is monthly)				
3.	Weekly	clinical meetings were organized by all medical disciplines				
4.	Monthly	mortality audits were carried out mostly in Maternal and Child Health				
5.	The Hos	spital pursued various activities – Legal, Advocacy, Media & Physical to protect the hospital land				
	for futur	e developments				
6.	Drug an	d Therapeutic committee activities intensified				
7.	Quality /	Assurance Activities intensified (monthly meetings held)				
8.	8. Data validation activities strengthened (monthly meetings held)					
9.	Intensifi	ed the practice of the Sub-BMC concept				
10.	Comme	nced the process towards the establishment of a cancer registry in collaboration with MOH and				
	ROMME	EF				
12.	Institute	d Service Improvement Levy (SIL)				
		Institutional Policies & Agreements/MOUs				
13.	Initiated	the process to establish Cape Coast Metropolis Cancer Registry at CCTH in collaboration with				
	the Mini	stry of Health and ROMMEF.				
14.	I he hos	spital signed MoU with Himalayan Cataract Project to increase access to eye care services				
15.	Institutio	onal Policy drafted/approved includes;				
	a. l	Uniform and Dress Code Policy - Approved				
	D. I	Human Resource Policy document - Drafted				
	C. 3	Staff Accommodation policy Approved				
	d. I	Institutional Policy Guideline on Asset Management - Drafted				
	e. (Correspondence Management Policy developed - Approved				
	t. I	Institutional ICT Policy Drafted				
	g. l	Data Backup Policy was 80%				
	h. I	Institutional Research Policy Drafted				
	I. I	Institutional Monitoring and Evaluation Policy Drafted				
	J.	I ransport Policy Drafted				
	0					
16.	Collated	and disseminated approved 2018 programme of work of all Sub-BMCs and Units				
17.	Action p	bian and budget workshop was organised for Business Managers and Heads of units in				
	September, 2018.					

2018 OUTCOME AND OUTPUT PERFORMANCE
18. Developed and facilitated the signing of performance management contract documents between CEO
and all Directors. Heads of Sub-BMCs. Departments and Units. Deputy Directors. Deputy Directors of
Nursing Services, Business managers and Accountants
19. Coordinated the preparation and submission of various proposals for sponsorship from various
companies including MTN. Inestfly, Peace FM. Plan International Chana, Movie House for the support
of vorious infrastructure and equipment
or various infrastructure and equipment
20. Coordinated the implementation of all institutional projects
21. Coordinated all planned activity under MAF funding
Institutional Monitoring and Evaluation
22. Submission of mandated reports to Ministry of Health was duly done
23. CCTH coordinated and hosted a one day stakeholders meeting to discuss the modalities for assessing teaching hospitals in October, 2018
24. Lead the developed and presentation of the joint teaching hospitals mid-year and annual performance reports
25. Evaluated the CCTH mid-year and annual performance of all the departments/units and summited the
26. Coordinated the organization stakeholders conference towards the Cancer registry project
27. Developed and published the CCTH 2017 Annual Performance Booklet
OPD SUB-BMC
1. Organized two departmental staff durbars
2. Thirty-seven (37) clinical meetings held
3. Held six (6) management meetings
A&E SUB-BMC
1. Two sub-BMC meetings were held
2. 26 clinical meeting held.
DIAGNOSTICS SUB-BMC
- MATERNAL USALTU SUR DMC
MATERNAL HEALTH SUB-BMC
The Sub-Divic field four (4) Management meetings Organized one (1) Units level staff durbar
1 3 sub-BMC meetings were held
2 1 departmental meeting was organized
3 70 clinical teaching meetings held
4. 3 perinatal meetings were held
F 2 radio talko waro hald and 1 TV programma attended
1 J. JIAUU LAKS WELE HEIU AHU I IV DIQUIAIHHE ALLEHUEU
INTERNAL MEDICINE SUB-BMC
INTERNAL MEDICINE SUB-BMC 1. 6 sub-BMC meetings were held
S. Stadio tarks were held and 110 programme attended INTERNAL MEDICINE SUB-BMC 1. 6 sub-BMC meetings were held SURGICAL SUB-BMC
Stradio tarks were held and 110 programme attended INTERNAL MEDICINE SUB-BMC 1. 6 sub-BMC meetings were held SURGICAL SUB-BMC 1. COLLABORATIONS:
Stradio tarks were held and TTV programme attended INTERNAL MEDICINE SUB-BMC 1. 6 sub-BMC meetings were held SURGICAL SUB-BMC 1. COLLABORATIONS: • University of San Diego California-Team management in trauma
S. Stadio tarks were held and 110 programme attended INTERNAL MEDICINE SUB-BMC 1. 6 sub-BMC meetings were held SURGICAL SUB-BMC 1. COLLABORATIONS: University of San Diego California-Team management in trauma Stone Brook University –treating people with colors
1. 6 sub-BMC meetings were held SURGICAL SUB-BMC 1. COLLABORATIONS: University of San Diego California-Team management in trauma Stone Brook University –treating people with colors University of Plymouth-Operation hernia
S. 3 radio tarks were held and 11 v programme attended INTERNAL MEDICINE SUB-BMC 1. 6 sub-BMC meetings were held SURGICAL SUB-BMC 1. COLLABORATIONS: University of San Diego California-Team management in trauma Stone Brook University –treating people with colors University of Plymouth- Operation hernia University of LTAH-fellowship for ENT consultant and ENT workshop (22 cases operated)
1. 6 sub-BMC meetings were held INTERNAL MEDICINE SUB-BMC 1. 6 sub-BMC meetings were held SURGICAL SUB-BMC 1. COLLABORATIONS: University of San Diego California-Team management in trauma Stone Brook University –treating people with colors University of Plymouth- Operation hernia University of UTAH-fellowship for ENT consultant and ENT workshop. (22 cases operated) Czech Republic Embassy in Collaboration with Loss Drivilaged Foundation depated hearing
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2018 OUTCOME AND OUTPUT PERFORMANCE					
	Act	Actual Targ			
	2017	2018			
i. Workplace related injury resulting in death or incapacitati remains nil (0)	on 0	0			
ii. Total staff injury recorded reduced 38.5%	13	8			
iii. Health workers who benefited from occupational health a safety interventions reduced 1.9%	nd 5.8%	3.9%			
iv. Percentage of staff satisfied at the facility reduced 19.5%	55.9%	36.5%			
v. Percentage of health staff with accidental needle prick inju	ıry 0.6%	0.4%			
reduced by 0.2%	(8 staff)	(5 staff)			
vi. Proportion of total staff appraised increased 24%	57% 33%				
vii. Total Staff increased by 0.4%	1320	1325			
viii. Consultant resident doctor ratio has improved	1:3	1:1			
ix. Doctor Nurse and midwife ratio increased	1:21	1:24			
x. Delivery to midwife ratio (i.e. productivity of the midwives only the delivery suite) increased	at 1:62	1:81			
xi. Doctor pharmacy ratio increased (1:11 in 2017 to 1:15 in 201	8) 1:11	1:15			
xii. Number of welfare packages available for staff remains t	he 1	1			
xiii. Surgeon surgery ratio decreased	1:148	1:139			
Outputs					
 Staff Welfare Association have been re-constituted and stu 	renathened				
OPD SUB-BM	C				
-	-				
A&E SUB-BM	0				
1. 90% of staff were appraised					
DIAGNOSTICS SUE	B-BMC				
-					
MATERNAL HEALTH S	SUB-BMC				
1. About 98% of staff were appraised					
CHILD HEALTH SU	B-BMC				
1. 90% of staff have been appraised					
INTERNAL MEDICINE	SUB-BMC				
1. Graduation of two locally trained Physician Specialists					
SURGICAL					
 Increase in staff strength especially urology specialist and 	surgical surg	eons			
2. Three in-service training was organized for staff					
PUBLIC HEALTH SU	IB-BMC				
1. Adequate staff posted to the unit					
2. Adequate number of prescribers at the clinics					
PHARMACEUTICAL S	ERVICES				
-					
3.3 Improve on Finance Resource and Management System					
HOSPITALWIDE OUTCON	<i>NE/IMPACT</i>				
Actual Tar					
Access and Impact	2017	2018	get	ark	
i.Total Drug Income GH¢ increased by 24.87% 4,591,576.17		7 5,733,912.53			
ii. Total Drug Purchase GH¢ increased 64.72%	2,723,224.74	4 4,485,784.57			
iii. Percentage of submitted claims paid declined drastically	58.68%	20.88%	1		
iv. Debtors davs increased	283.22	346.85			
v Creditors days decreased	184 73	100.82			
vi Proportion of ICE revenue spont on PPM decreased by	1 1 2 %	3 520/	+		
	н. I J /0	0.00 /0			

2018 OUTCOME AND OUTPUT PERFORMANCE						
vii.	Percentage IGF paid as compensation decreased by 1.79%	11.47%	9.68%			
viii.	Ratio of cash revenue to NHIA reimbursement	-	0.66:1			
	-					
	CITVE 4: IMPROVE REALTH RESEARCH, TEACHING AN				IENCE	
4.1111	HOSPITAL WIDE LEVEL -					
1	Organised the Maiden Scientific Research Conference with	n total attendanc	e of about 150 ii	ocludin		
	Policy Makers Academia Clinicians and staff held on the 13th of November 2018 on the theme					
	'Optimizing Outcome of Health Care Delivery: The Role of I	Research in Poli	cy Decision Mak	ing in (CCTH)	
	Ghana'. Published in the	Ghana	News	Á	sgency:	
	http://www.businessghana.com/site/news/general/176594	/Ghana-needs-a	a-National-Healt	h-Rese	arch-	
	Policy-%E2%80%93-					
	The proceeding paper have been submitted for put	plication in Post	araduate Media		ırnal of	
	Ghana for publication		graduate mean		innar or	
	Book of Abstract and proceeding report also subm	nitted to the CC	TH Board and M	/oH fo	r policy	
	decision making.					
2.	Conducted an evaluation study on the E-Health project im	plementation.				
	Iopic: Effectiveness of the E-Health Project (LHIMS So	offware) At CCT	H, Ghana and	its imp	oact on	
	Authors: Asare Daniel Ofori Princess Gloria Mensa	h-Acheampona	Frederick Akr	pedonu	ı Kafui	
	Koranteng Eric, Ngyedu Eric Kofi, Blankson Sophia, Tieku	ı Asare Samuel.	Turkson Tawia	h Josei	ph.	
	Status: Submitted for Publication in The Postgraduate Me	edical Journal of	Ghana.	,		
3.	Developed and Research and Development Policy docum	ent (awaiting C	CTH Board's ap	proval)		
	DIAGNOSTICS SUE	B-BMC				
4.	One (1) Clinical research for pathology unit was conducted	d and published				
5.		SUB-BMC	photocling resear	cn.		
6	Presented a case report at the CCTH Maiden scientific res	search conferen	се			
	CHILD HEALTH SU	B-BMC				
7.	Child health commenced the following collaborative resea	arch;				
	 Collaboration with Haematology: prevalence rate o child welfare clinic at CCTH 	f sickle cell dise	ease in children	attend	ing the	
	 Collaboration with HIV clinic: psychosocial needs of 	adolescents livi	ing with HIV			
	Nurse-led research: prevalence and risk factors ass	ociated with neo	onatal jaundice i	n CCT	H.	
8.	Presented a clinical case report at the CCTH Scientific res	search conferen	ce on "Ovarian E	Burkitts	," ,	
101	-					
4.2 IM	Iprove on Teaching and Learning: HOSPITAL WIDE LI	EVEI				
1	The Nursing Directorate received and retated various pure	cing students on	dintorne			
	OPD SUB-BM	C				
1.	Continuously hosted several students' academicians and	other researche	rs.			
	A&E SUB-BM	С				
1.	Two training section held on LHIMS					
2.	33 Staff (doctors, nurses and accountants) were trained in	SAT (South Afr	rican Triage Sco	ore)		
3.	38 staff trained on cardiopulmonary resuscitation and cert	ificates were giv	en.			
1	DIAGNOSTICS SUE	S-BINC S TR Malaria I	JIV Cholora LI		Rlood	
1.	Safety).	5, 1 D, Ivialalla, f	TIV, CHOIEIA, LI	5, LIVI C	x DIUUU	
	MATERNAL HEALTH S	SUB-BMC				
1.	Carried out daily clinical teaching/tutorial sessions for the	Sub-BMC				
2.	CCTH – Kybele collaborative training in maternal and safe	e childbirth and c	quality improven	nent		
3.	3. Trained staff on Basic Ultrasound, Evacuation of Uterus, Shoulder dystocia management, Triaging etc.					
4.	Commenced residency training programme at the departm	nent. five (5) res	idents currently	enrolle	ed)	
5.	5. Training of residents on external rotation from other institutions (about 10 residents received and trained)					

2018 OUTCOME AND OUTPUT PERFORMANCE							
CHILD HEALTH SUB-BMC							
1.	Training						
	 1 training session – Paediatric Emergency Triage and Treatment (ETAT) course 						
	 1 training session – Essential Newborn Care/Helping Babies Breathe course 						
	 2 medical officers sponsored for postgraduate studies 						
	 2 Paediatric nurses sponsored – Paediatric and critical care 						
	 Accreditation was applied for residency – GCPS 						
	• 1 seminar held for staff						
2	Teaching and learning experience						
۷.	1 eaching and learning experience						
	 100% primaries pass rate – 2 medical oncers In complex training expensional on eliminal quality for 40 house officers 						
	In-service training organized on clinical audit for 40 house officers						
	•						
1.	All doctors and 5 nurses trained in Basic Life Support						
2.	Nurses trained in High Dependency Unit Care						
3.	The Sub BMC continued its role in supporting undergraduate nursing, medical, Pharmaceutical and other						
	allied health training						
4.	Organize examination revision for residents						
	SURGICAL SUB-BMC						
1.	Three In – service training was organized for staff						
2.	Weekly refresher presentation on operating room techniques as well as other nursing and medical						
	related topics was organized for all theatres and recovery Staff						
3.	Two Ophthalmic Nurses were able to do their sixteen weeks internship at the unit						
4.	Two Optometrists also did their nine months internship at the unit						
5.	On-the-job training was given to 43 new nurses posted to the unit						
6.	Critical care and perioperative nurses from Korle-Bu did their 12 weeks internship as part of their training						
7.	Organised two CPD hands-on training on hernia mesh repair and management of hemorrhoids						
8.	Held a two-day conference on trauma with the university of San Diego						
	PUBLIC HEALTH SUB-BMC						
	• • •						
	PHARMACEUTICAL SERVICE						
1.	20 pioneer batch of Pharm D students (Doctor of Pharmacy) completed attachment in CCTH and the						
	Overall Best student at the Professional exams was from CCTH.						
2.	11 new 6th year replacement students were posted in August from KNUST.						
	5 Interns were posted by the Pharmacy Council for their internship.						
POINT	CITVE 5. INTENSIFT SUPPORT TO THE LOWER LEVEL OF CARE AND SERVICE DELIVERT						
	HOSPITALWIDE LEVEL ACTIVITY OUTPUTS						
1	Sixteen (16) facilities supported						
2	CCTH Ophthalmologists leading regional eve services						
3.	CCTH Pediatricians lead the regional core team for Quality Improvement in newborn care						
4.	Support mentorship/outreach programme by the various department/sub-BMCs						
	MATERNAL HEALTH SUB-BMC						
1.	Continuous support to lower facilities on phone and visits to site.						
	CHILD HEALTH SUB-BMC						
1	SCBU telephone number widely circulated for neonatal referrals - improved communication						
2	Child Health staff are facilitators in various GHS programme (IMNCL_ENC_CHO internship_CMAM) $=$ to						
2.	improved supervision mentorship and feedback at lo`wer level						
2	Child Health staff are part of the regional core team for Quality Improvement in newborn care, improved						
	service delivery and support supervision at the lower levels of care						
1	IN I ERNAL MEDICINE SUB-BMC						

2018 OUTCOME AND OUTPUT PERFORMANCE

SURGICAL SUB-BMC

1. Eight (8) Outreach to communities /churches by DEENT

2. Six (6) Outreach to schools by DEENT

3. Two (2) Surgical Outreach to facilities by DEENT

PUBLIC HEALTH SUB-BMC

1. Conducted 6 community outreach service

PHARMACEUTICAL SERVICES

1. Conducted a training for Ankaful Psychology Hospital Pharmacy Technician

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

	HOSPITALWIDE LEVEL ACTIVITY OUTPUTS			
i.	100%completion of Polyclinic			
ii.	100% completion and Operationalisation of O&G Emergency Centre			
iii.	100% completion and Operationalisation of Mothers Hostel (with support from Mr. Anokye Yeboah – a			
	philanthropist)			
iv.	100% completion of the medical waste plant and operational			
ν.	60% achievement of Planned Preventive Maintenance			
vi.	100% Completion and operationalisation for the 24-Hour Pharmacy			
vii.	100% completion and operationalisation of the medical waste plant			
viii.	Renovated Residential Accommodation - Blocks F, H and bungalow No. 2			
ix.	Rehabilitated the Sewerage Treatment Plant (waste stabilization pond)			
х.	Acquisition of additional medical equipment to aid patient care			
xi.	Rehabilitated the Sewerage Treatment Plant (waste stabilization pond)			
xii.	Acquisition of (20-footer container) X-Ray Machine received under TB Control Programme			
xiii.	Renovated Residential Accommodation - Blocks F, H and bungalow No. 2			
xiv.	Created 3 office space for the accident and emergency sub-BMC			

SECTION 2

CHAPTER TWO

HUMAN RESOURCE

2.1: INTRODUCTION

The hospital's Human Resource Management's strategic approach is for acquiring, maintaining, motivating and developing employee in the organization to achieve stated goals. Human resource for Health has to do with engaging all employees in action with the primary aim to enhance quality of health.

2.2: STAFF STRENGTH ANALYSIS

The number of staff improved marginally by 0.4% over the previous year, especially among the clinical staff (doctors and nurses). However, there is still severe gaps considering the required standard as a tertiary facility. The Pharmacist and ICT staff still have serious Human resource gaps leading to work overload. The doctor to nurse and midwife ratio increased from 1:24 in 2018 as compared to 1:21 in 2017. Delivery to Midwives ratio at the delivery suit alone increased from 1:62 in 2017 to 1:81 in 2018. The doctor to pharmacist ratio declined in 2018, from 1:11 in 2017 to 1:15 in 2018. There was an improvement in the consultant to resident ratio. That's, from 1:3 in 2017 to 1:11 in 2018.

Also, the facility recorded an increase in OPD cases seen per specialist 1:1676 in 2017 to 1:2224 in 2018 whilst the OPD cases seen per doctor improved to 1:716 as compared to 2017 figure of 1:1034. However, the surgeon surgery ratio decreased to 1:139 as compared to 1:148 in 2017. Despite the general improvement in productivity, critical analysis needs to be done by the facility on staff workload, equity in staff redistribution and training impact assessment of the various departments. Table 2.2.1, 2.2.2, 2.2.3 and 2.2.4 demonstrates the human resource trend and the overall total cadres of staff at the hospital from 2014 to 2018.

CADRE	2014	2015	2016	2017	2018
Doctors	93	116	178	186	221
Radiology Technicians	1	3	3	5	8
General / Enrolled Nurses	249	317	535	554	546
Midwives	30	31	100	106	105
Pharmacist & Pharm Tech	8	11	10	15	28
Accountants & Finance	14	14	14	18	24
Officers					
Laboratory & Lab Tech	16	15	16	18	20
Health Services	3	5	4	8	8
Administrators					
Optometrist	1	2	2	2	2
Other GOG Pay Roll Staff	233	176	221	317	363
CCTH Pay Roll Staff	78	96	116	91	105
TOTAL STAFF	726	786	1,199	1320	1325 (0.4%

Table 2.2. 1: Staff Strength Analysis

 Table 2.2. 2: Summary of Human Resource Status for 2018

DIRECTORATE	MECHANISED	IGF	SECONDMENT	TOTAL
Administration	179	58	4	243
and General				
Services				
Finance	18	5	1	24
Medical	302	24	3	327
Nursing	698	5	-	703
Pharmacy	15	13	-	28
Grand Total	1212	105	8	1325

Table 2.2. 3: Number of Medical Doctors available at CCTH

CATEGORY	NUMBER		
Consultants/Specialists	53 (*31 UCC SMS)		
Medical Officers	29		
Residents	53		
Senior House Officers	19		
Junior House Officers	67		
TOTAL	221		

Table 2.2. 4: Number of Specialists available at CCTH

SPECIALTY	NUMBER		
Anaesthesia	1		
Cardiology	1		
Chemical Pathology	1		
Child Health	3		
Clinical Microbiology	1		
Community Medicine	1		
Emergency Medicine	2		
Endocrinology	1		
ENT	2		
Family Medicine	2		
Haematology	2		
Internal Medicine	3		
Maxillofacial	2		
Microbiology	1		
Neurosurgery	1		
O&G	10		
Ophthalmology	3		

SPECIALTY	NUMBER
Orthopaedics	2
Pathology	2
Plastic Surgery	1
Radiology	3
Surgery	7
Urology	1
Grand Total	53

2.3. GAP ANALYSIS FOR DOCTORS

In recognition of the HR gaps at CCTH, management as a strategy approved 30 doctors to undertake specialised programme to address some of the areas needed at the facility as detailed in table 2.3.1. Additionally, 29 staff from various categories were recruited with the highest being doctors (14). Out of the total 18 staff transferred-out,13 of them were nurses forming the highest and out of the 11 staff transferred-in, only 3 were nurses and they form the highest number among that batch, as illustrated in table 2.3.2, 2.3.3 and 2.3.4. Non-the-less, the HR gap at the facility is still very palpable. Such as, the urgent need for doctor anaesthetist etc.

Table 2.3. 1: Gap Analysis for Doctors

CADRE	Established TH Minimum	Available	Under Training
Medical Officers	56	29	-
Physician Specialist	32	3	7
Doctor Anaesthetist	27	1	2
Emergency Medicine Physician	22	2	-
Obstetrician & Gynaecologist	21	10	5
Paediatrician (General)	16	3	4
General Surgeon	11	7	8
Family Physician	7	2	2
Pathologist	6	2	2
Ophthalmologist	7	3	-

2.4. STAFF STRENGTH ANALYSIS – NURSES AND MIDWIVES

The hospital over the years have seen improvement in the number of nurses and midwives. The general total nursing (nurses and midwives) staff for 2018 improved by 1.4% over the previous year. Despite that, there has been a decline in 3 out of 4 nursing cadres. The community nursing staff reduced by 11% and the enrolled nurses also dropped by 2%. There was a 3% increase in the total general professional nurses from 436 to 449 in 2017 and 2018 respectively. The 1% decline in the total midwives at the facility, reflects the increase recorded in the midwife to delivery ratio (that's using the total midwives at the delivery suite only) from 1:62 in 2017 to 1:81 in 2018. This could be interpreted as having an increase in productivity of the midwives or an increase in workload. The table below illustrates the two-year trend analysis of the nursing staff.
Table 2.4.	1: Staff	Strength	Analysis –	Nurses	and	Midwives
------------	----------	----------	------------	--------	-----	----------

	NUN	%	
CATEGORY			DIFFERENCE
	2017	2018	
Community Health Nurses	9	8	11% decr.
Enrolled Nurses	99	97	2% decr.
Midwives	106	105	1% decr.
Professional Nurse	436	449	3% incr.
Registered Mental Health Nurse	436	-	-
TOTAL	650	659	1.4% increase

2.5 PROMOTIONS AND STAFF DEVELOPMENT

The facility organizes promotion interview twice yearly. In 2018 a total of 92 staff were either promoted, upgraded or converted. However, only new staff were given administrative appointment. Interestingly, although appraisal of staff is expected to be a pre-requisite for such interviews, the facility has over the years not being able to effectively appraise all the cadres of staff under the various directorates. As always, the nursing directorate is leading with 59.4% of its staff being appraised. Generally, out of the total 1,325 hospital staff, only 485 representing 39.3% of staff were appraised in 2018. A total of 41 staff were granted various forms of study leave in 2018. Table 2.5.1, 2.5.2 and 2.5.3 provides a detailed analysis.

TYPE OF CHANGE	1ST HALF	2ND HALF	TOTAL
Appointment	2	-	2
Promotion	53	15	68
Upgrading	13	6	19
Conversion	-	3	3
TOTAL	68	24	92

Table 2.5. 1 Promotions

Table 2.5. 2 Study Leave

Cadre	Study Leave with Pay	Study Without Pay	Sandwich
Nurses	18	0	0
Doctors	13	1	0
Other Staff	4	0	5
Total	35	1	5

2.6: HUMAN RESOURCE WASTAGE

The number of retired staffs reduced over the previous year from 13 in 2017 to 8 in 2018 respectively. Seven (7) staff vacated their post. Unfortunately, from the table below, 2 staff died in 2018 as compared to 1 in 2017 with 2 other staff resigning.

Table 2.6. 1 wastage type in 2018

WASTAGE TYPE	NUMBER
Vacation of Post	7
Leave without Pay	4
Resignation	2
Death	2
Retirement	8
TOTAL	23

CHAPTER THREE

CLINICAL CARE SERVICES

3.1: INTRODUCTION

The chapter provides the general trend analysis of the clinical performance of the hospital whilst highlighting the key clinical performance indicators from outpatient through to inpatient services including diagnostics service utilisation.

3.2 OUT-PATIENT SERVICES UTILIZATION

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

3.2.1 2018 OPD Utilization by Specialties

Paediatric cases remained the least (7%) among the category of specialty services attended at the OPD. Adult Medical related conditions alone accounted for 39% as the highest cases seen on outpatient bases in 2018. 18% of the cases seen were related to DEENT (Dental, Eye and Ear Nose and Throat) whereas Maternal health accounted for 15% of OPD cases seen in 2018. Figure 3.2.1.2 below demonstrates the utilization of OPD services by specialty. The 16% General OPD cases could equally be attended to at the hospital's Poly clinic when made operational to allow room for more specialists' clinics.



Figure 3.2.1. 1: OPD Utilization by Specialties

3.2.1 TREND IN OPD UTILIZATION

Over the past three years, the facility has seen a continuous rise in the outpatient's attendants. However, in 2018, the was a drastic increase by 34% over the 7% increase in 2017. Interestingly there was a decline in the number of patients referred to the department by 2.2% compared to the 7.8% rise in 2017. The general increase in the total number of doctors at the facility generally impacted positively on the OPD cases seen per doctor from 1:1030 in 2017 to 1:176 in 2018, thereby reducing the workload as represented in figure 3.2.1.1 and table 3.2.1.1 below.



Figure 3.2.1. 2: Trend in OPD Service Utilization

Table 3.2.1. 1: General OPD Clinic Attendance

INDICATOR 2016		2017	2018	
Total OPD Attendant	110,068 (6% incr.)	117,854 (7% incr.)	158,164 (34% incr.)	
Referrals Received	3,724 (32.4% incr.)	4,386 (7.8% incr.)	4, 292 (2.2% decr.)	
OPD cases seen per	1:1184	1:1034	1:716	
doctor				

Generally, 11 out of the 28 OPD clinics recorded varied percentage increase in patients' attendants compared to the previous year, with some being of great public health concern. For instance, the number of renal cases increased by 4.6% and the patients receiving renal dialysis have also increased by 160% (from 77 patients in 2017 to 195 patients in 2018). Also disturbing, is the continuous rise in the Hepatitis cases by 11.3% over the previous year. Interestingly, despite the rise in the number of diabetic cases by

9.7%, cases seen at the diet and nutrition clinic drastically reduced by 34% in 2018 over the previous year. The adolescent clinic was strategically introduced to provide services to that age group. However, in 2018, there was a sharp drop in attendance which needs to be critically looked at to determine the contributing factor(s). Although, Orthopaedic cases continue to increase (5.9% in 2018), the facility recorded a continuous decline in the number of physiotherapy attendants at the facility in the past three years. In 2018, physio cases dropped by 17.3% as compared to the 7.1% reduction in 2017. Generally, OPD cases seen per specialist increased from 1:1676 in 2017 to 1:2224 in 2018. Table 3.2.1.2 provides a detailed five-years analytical trend of the OPD clinical performances by specialty.

	CLINIC	2014	2015	2016	2017	2018	% Diff.
1.	General	18,239	16,617	16,232	21,060	17,184	18.4% decr.
2.	General Surgery	4,375	3,983	4,376	5,702	4234	25.7% incr.
3.	Orthopaedic	1,466	1,913	2,223	2,347	2,485	5.9% incr.
4.	Paediatric	6,767	7,690	7,810	8,180	7,490	8.4% decr.
5.	Dermatology	324	357	330	359	315	12.3% decr.
6.	Uro-surgery	1,769	2,208	2,843	3,275	4,102	25.3%incre.
7.	Neuro-surgery	112	200	129	312	351	12.5% incr.
8.	Obstetrics & Gynaecology	15,515	20,322	15,536	17,147	16,529	3.6% decr.
9.	Asthma	357	297	511	787	1,036	31.6% incr.
10.	ENT	5,094	5,907	6,080	6,664	6,230	6.5% decr.
11.	Eye	5,872	6,600	8,420	9,348	8,917	4.6% decr.
12.	Cardiology	269	240	1,590	2,153	2104	2.3% decr.
13.	Endocrinology	0	0	82	125	111	11.2% decr
14.	Haematology	0	0	223	298	431	44.6% incr.
15.	STI / HIV	5,112	5,895	5,377	6,068	No Data	-
16.	Tuberculosis	36	35	42	39	42	7.7% incr.
17.	Sickle Cell	0	135	454	650	567	12.8% decr.
18.	Gastroenterolog y	175	170	560	690	620	10.1% decr.
19.	Anaesthesia	311	378	943	868	782	9.9% decr.
20.	Clinical Psychology	128	150	163	261	301	15.3% incr.
21.	Dental & Maxillofacial	2,325	4,165	4,294	5,112	4,769	6.7% decr.
22.	Plastic Surgery	-	176	564	601	433	28% decr.
23.	Adolescence Clinic	-	57	126	218	171	21.6% decr.
24.	Diabetes	9,135	9,201	9,309	9,966	10,636	6.7% incr.
25.	Hepatitis B	714	446	940	1,059	1,179	11.3% incr.
26.	Diet & Nutrition	1,008	1,743	1,417	1,916	1,265	34% decr.
27.	Physiotherapy	-	-	14,451	12,649	10,456	17.3% decr.
28.	Treatment Room (Minor procedures)	3,733	8,706	9,932	9,218	7,464	19% decrease
29.	Renal Clinic	-	-	389	849	888	4.6% increase

Table 3.2.1. 2: Trend in OPD Utilization by clinic from 2014 to 2018

	CLINIC	2014	2015	2016	2017	2018	% Diff.
30.	Dialysis	1,185	2,181	3,857	4,457	5,265	18.1%
	-	Session	Session	Session	Session	Sessions	increase
		S	S	S	S	(195	(160% incr.
		(24	(42	(65	(75	Patients)	in patients)
		Patients)	Patients	Patients	Patients		
)))		
31.	Radiology	12,792	10,816	14,286	17,342	20,766	19.7%
	Investigation						increase
32.	Laboratory	118,392	142,070	159,372	266,635	275,329	3.3%
	Investigations						increase

Table 3.2.1. 3: Utilization of HIV/TB Services 2015-2018

INDICATOR	2015		2016		2017			2018		
	Adult	Paed	Total	Adult	Paed	Total	Adult	Paed	Total	2018 report
										from the HIV
No. Of New HIV Cases	264	34	298	217	27	244	223	30	253	clinic was not
No. Of HIV	806	43	849	837	54	891	987	66	1,053	available due
Cases										to the
ARV										challenges
Clinical	5572	323	5,895	5,015	362	5,377	5657	411	6,068	associated with
Total Death	13	0	13	7	0	7	10	1	11	the installation
	10	Ŭ	10		Ŭ		10			of the national
No. Screened for TB	1,089	78	1,167	4,439	283	4,722	1146	91	1,238	E-tracker
No. of Diagnosed TB	10	8	18	14	4	18	18	12	30	
No. On Tb Treatment	10	8	18	14	4	18	9	11	20	

NOTE: The hospital in 2018, encountered a challenge in generating HIV case report. Table 3.2.1.3 provides detailed analysis of the HIV and TB service utilization at the hospital, disaggregating them into new cases, number of follow ups as well as the deaths that were recorded from 2015 to 2017.

3.3 TOP TEN OPD MORBIDITIES - 2018

Hypertension (7.7%) and Diabetes (5.1%) remained the leading causes of OPD attendance. Non-communicable diseases continue to fall among the top 3 disease conditions presented to the facility followed by communicable diseases such as the upper respiratory tract infection (2.1%). From the Illustration in figure 3.3.1 below, prostate cancer which is also increasing at an alarming rate is the 8th out of the top 10 OPD morbidities and forms 3%. Ulcer related conditions (0.9%) and acute eye infection (0.9%) were the least among the top 10 OPD cases attended to in 2018.

Figure 3.3. 1: Top Ten OPD Morbidities in 2018



3.4: IN-PATIENT SERVICE UTILIZATION

The percentage of admission at the facility over the years (2015 to 2017) increased however, there was a declined by 5.1% in 2018 over the previous year (from 11444 in 2017 to 10865 in 2018) as illustrated in figure 3.4.1. Additionally, the percentage of patients admitted due to external referrals also dropped by 9.2% (from 35% in 2017 to 25.8% in 2018). The percentage of neonatal admission due to external referrals equally reduced by 1.9% (from 28% in 2017 to 26% in 2018) and the percentage of maternal admissions due to external referrals also reduced by 7.6% (from 49% in 2017 to 41.4% in 2018). This reflected on the nurse and midwife admission ratio from 1:21 in 2017 to 1:20 in 2018. The continuous extension of specialist support to the peripheral facilities could be a contributing factor in the general reduction of referrals to the facility.

The bed capacity of the hospital remained at 400 in 2018. The facility recorded an increase in the average length of stay of patient on the wards to 5.2 in 2018 as compared to 4.0 in 2017 and the percentage of bed occupancy dropped by 2%. Overall, surgeries performed in 2018 reduced by 3.2% which reflected on the decline of the Surgery surgeon ratio from 1:148 in 2017 to 1:139 in 2018. Total deliveries increased by 3.4% (from 3055 in 2017 to 3160 in 2018) with 7% increase in Caesarean section rate. The increase in deliveries reflected in the increase in the midwife to delivery ratio (using midwives at only the delivery suite) from 1:62 in 2017 to 1:81 in 2018.

Further, figure 3.4.2 below shows the total percentage of admissions by specialty. 41% of admissions in 2018 were maternal health related and forms the highest out of the total admissions. Interestingly, despite the paediatric OPD attendants being the least among the OPD case seen by specialty, they ranked second and forms 24% of the total admissions in the facility and surgery forms 17% of the total admissions.



Figure 3.4. 1: Admission Percentage According to Specialties

Figure 3.4. 2: Trend in Admissions from 2015 to 2018



3.4.2: TOP TEN CAUSES OF ADMISSION

Pregnancy complication remained the leading cause of admission at the facility and forms 6.4% of the total admissions in 2018, although the condition itself reduced by 46.1% in 2018 (from 1242 in 2017 to 699 in 2018). This reduction could be attributed to the extension of continuous peripheral support over the years by the facility and the management of cases at the antenatal clinic.

In 2018, kidney disease formed 2.3% and ranked 6th among the top 10 causes of admission. The facility recorded 4.6% rise in kidney related cases at the OPD. Also, the clients placed on renal dialysis went up by 160% in 2018. That's from 75 patients being placed on dialysis in 2018 to 195 in 2018. The increasing number of people living with kidney problem is of great concern to all stakeholders especially when the cost of dialysis is not covered under NHIS. Pre-maturity neonatal sepsis and Birth Asphyxia also continue to compete among the top 10 causes of admissions at the facility as provided in table 3.4.2.1 below.

	20	16	20	17	20	18
1.	Pregnancy Complication s	1,060 (9.9%)	Pregnancy Complications	1,242 (10.9%)	Pregnancy Complications	699 (6.4%)
2.	Malaria	480 (4.5%)	Hernia	387 (3.4%)	Jaundice (Neo)	392 (3.6%)
3.	Hernia	374 (3.5%)	Pre-Maturity	290 (2.5%)	Hernia	316 (2.9%)
4.	Bronchopneu monia	302 (2.8%)	Bronchopneu monia	246 (2.1%)	Pre-Maturity	293 (2.7%)
5.	Anaemia	275 (2.6%)	Pneumonia	246 (2.1%)	Sepsis of Cord (neo)	274 (2.5%)
6.	Jaundice (Neo)	226 (2.1%)	UTI	234 (2.0%)	Kidney Diseases	255 (2.3%)
7.	Uterine Fibroid	208 (2.0%)	Anaemia	197 (1.7%)	Asphyxia birth (Neonatal)	215 (1.9%)
8.	UTI	201 (1.9%)	Diabetes Mellitus	183 (1.6%)	Bronchopneu monia	185(1.7%)
9.	Pre-Maturity	181 (1.7%)	Neonatal Jaundice	178 (1.6%)	Pneumonia	173 (1.5%)
10.	Pneumonia	179 (1.7%)	CVA	171 (1.5%)	Cerebrovascul ar Accident (CVA)	169 (1.5%)

Table 3.4.2.	1:	Тор	Ten	Causes	of A	Admission:
	••	1 UP	1011	00000	U , <i>i</i>	

3.5: INSTITUTIONAL MORTALITY

Over the past years, various approaches were introduced that were geared towards the achievement of the facility's mortality targets set. However, the facility is yet to record a reduction in the institutional mortality rate. Mortality indicators are one of the key

indicators in determining the performance of an institution in general. In 2018, the facility's institutional deaths rate went up by 0.3% (from 8.7% in 2017 to 9.0% in 2018) as illustrated in figure 3.5.1 below.



Figure 3.5. 1: Trend in Mortality Rate from 2015 to 2018

The facility recorded 1.6% increase in deaths that occurred on the wards in 2018. There was also a rise in the number of deaths at the theatre recovery ward from 3 cases in 2017 to 5 cases in 2018. Deaths at the accident and emergency, theatre and BIDs (the cases brought in death) all dropped by 8.5%, 57.1% and 46% respectively. Details provided in table 3.5.1 below.

Table 3.5. 1	: Institutional	Mortality	Categorization
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INDICATORS	2014	2015	2016	2017	2018	% Diff.
Deaths (Ward)	667	676	746	733	745	1.6% increase
Death (A&E)	331	280	336	398	364	8.5% decrease
Death (Theatre)	2	3	4	14	6	57.1%
						decrease
Death (Recovery ward)	6	5	11	3	5	66.7% increase
Total Hospital Death	1,006	964	1,097	1,148	1,120	2.4% decrease
Mortality Rate (%)	8.3	7.8	8.3	8.7	9.0	0.3 increase
Brought in Dead	134	158	240	189	102	46% decrease

3.5.3 TOP TEN CAUSES OF MORTALITY

Despite pre-maturity being the 4th among the top 10 leading causes of admission for 2018, it interestingly accounts for the top leading cause of mortality and great concern considering the absence of a neonatal intensive care unit at the facility. The second leading cause of mortality at the facility is birth asphyxia. it increased by 80.8% in 2018

from 26 deaths in 2017 to 47 in 2018 and forms 6.3% of the total mortality at the facility. Prostate cancer for the first-time accounts for the 6th leading cause of death at the facility with hernia complications being the least among the top 10 causes of mortality. Detailed trend analysis provided the table 3.5.3.1 below.

	2015		201	6	2017		2018	
1.	Pre-maturity	74(10.9)	Pre- maturity	95(12.7)	Pre-maturity	66(9.0)	Pre-maturity	71 (9.5)
2.	Birth Asphyxia	41 (6.1)	CVA	48(6.4)	Neonatal Sepsis	60(8.2)	Asphyxia Birth (Neonatal)	47 (6.3)
3.	CVA	28 (4.1)	HIV/AIDS	30(4.0)	Kidney Diseases	40(5.5)	Jaundice	27 (3.6)
4.	Liver Failure	28 (4.1)	Kidney Diseases	30(4.0)	CVA	31(4.2)	Breast Cancer	20 (2.6)
5.	Anaemia	25 (3.7)	Pneumonia	26(3.5)	Birth Asphyxia	26(3.5)	Neonatal Sepsis	19 (2.5)
6.	Pneumonia	23 (3.4)	Birth Asphyxia	20(2.7)	Pneumonia	26(3.5)	Prostate Cancer	16 (2.5)
7.	Neonatal Sepsis	21 (3.1)	Hypertensi on	20(2.7)	CCF	23(3.1)	Intestinal Obstruction	16 (2.5)
8.	Hypertension	15 (2.2)	Anaemia	18(2.4)	Broncho pneumonia	18(2.5)	Ulcer	6 (0.8)
9.	Diabetes Mellitus	15 (2.2)	Neonatal Sepsis	18(2.4)	Hypertension	17(2.5)	Malnutrition	6 (0.8)
10.	Meningitis	16(2.1)	Bronchopn eumonia	18(2.4)	Anaemia	15(2.0)	Hernia complications	6 (0.8)

Table 3.5.3. 1: Top Ten Causes of Institutional Mortality

3.6: OBSTETRIC SERVICES

Total deliveries went up by 3.4% and number of babies increased by 2.4% over the previous year. Caesarean section at the facility went up by 7%. The facility in 2018, recorded a sharp drop in the number of antenatal attendants by 11.7% from 10,141 in 2017 to 8,953 in 2018. Details provided in table 3.6.1 below.

 Table 3.6. 1: Obstetric Services Indicators:

INDICATORS	2014	2015	2016	2017	2018	Remarks
Deliveries	2,618	2,854	2,904	3,055	3,160	3.4% increase
Number of Babies	2,730	2,945	3,037	3,179	3,256	2.4% increase
% Supervised Deliveries	100	100	100	100	100	Sustained
% Caesarean Section	35%	34%	38%	40%	47%	7% increase
Maternal Deaths	20	31	41	41	27	34.1% decrease
Maternal Mortality Ratio Per 100,000 Live Births	772	1,111	1,428	1,335	860	Improved
ANC Registrants	568	630	716	748	794	6.1% increase
ANC Attendance	7,332	7,982	8,567	10,141	8,953	11.7%decrease

3.6.2: MATERNAL MORTALITY

There was a significant reduction in institutional maternal mortality by 34.1% (from 41 in 2017 to 27 in 2018) and led to an improvement in the maternal mortality ratio from 1,335/100 000Livebirths to 860/100.000Livebirths. This is due to collective efforts in implementing targeted interventions such as, the use of mortality audit information to improve of subsequent outcomes, continuous onsite training on obstetric emergency triaging and management as well as the provision of specialist support to peripheral facilities. There is the need for sustenance of the gains and further reduction of the deaths since most are preventable. Figure 3.6.2.1 and 3.6.2.2 below shows the analytical trend of the maternal mortality trend over the past six (6) years.



Figure 3.6.2. 1 Trend in Maternal Mortality, 2013-2018



Figure 3.6.2. 2: Trend in Maternal Mortality Ratio / 100,000 Live Births, 2013-2018

3.6.3 CAUSES OF MATERNAL MORTALITY

Haemorrhage, Hypertensive disorders in pregnancy and Sepsis remained the three leading causes of maternal mortality at the facility. Evidently, the facility has progressively worked towards the reduction of the Haemorrhage and hypertensive related deaths over the past year. As a result, Haemorrhage related deaths reduced from 14 to 8 cases and Hypertensive related deaths dropped from 12 to 8 cases in 2018. Sepsis however is still a major challenge as efforts are yet to translate into clear statistical improvement as demonstrated below in figure 3.6.1.



Figure 3.6.3. 1: Causes of Maternal Mortality

3.6.4: REFERRAL FACILITIES OF MATERNAL DEATHS

The general referrals into the facility dropped by 2.2% in 2018 (from 4386 in 2017 to 4292 in 2018). The referrals due to maternal admissions also decreased by 7.6% (from 49%

in 2017 to 41.4% in 2018. The reduction in the proxy indicators above could be attributed to the continuous extension of specialist support to the peripheral facilities which is one of the mandates and strategic objectives of the hospital. This could also be interpreted as good because the facility would now be able to concentrate on providing quality tertiary health care instead of primary and secondary level care. Despite the gains, the facility still records delayed referrals from peripheral facilities that ultimately accounts for most of the maternal and neonatal deaths as every minute counts in obstetric emergencies. Table 3.6.4.1 below provides details on the maternal deaths and name of referral facility for 2018. Out of the 27 maternal deaths recorded, 24 of the cases were referrals from the peripheries. Only 3 of the cases originated in-house (cases seen through the facility's own OPD).

REFERRAL FACILITY	NO	REFERRAL FACILITY	NO
Saltpond Municipal Hospital	3	Nagel Memorial Adventist	1
Mercy Women's Clinic – Mankessim	3	Oda Government Hospital, Akim -Oda	1
Effia Nkwanta Regional Hospital, Takoradi	2	Sanford World Clinic, Cape Coast	1
Our Lady of Grace Hospital, Asikuma	2	Swedru Government Hospital	1
Adisadel Urban Health Centre, Cape Coast	1	UCC Hospital	1
Abura Dunkwa District Hospital	1	UQ Hospital	1
Apinto Government Hospital, Takoradi	1	Winneba Trauma and Specialist Centre	1
Baiden Ghartey Memorial Hospital, Cape	1	TOTAL (REFERRALS)	24
Coast			
Essikado Government Hospital, Takoradi	1	ССТН	3
Fynba Clinic	1	GRAND TOTAL	27
Moree Health Centre	1		

Table 3.6.4. 1: Referral Facilities of Maternal Deaths

3.7 CHILD HEALTH SERVICES

The facility continues to provide general and specialist child health services. The additional Paediatric specialist services being provided includes; Paedics-Neuro, Paedics-Asthma, Paedics-Renal, Paedics-Cardiology clinic etc. Attendants over the years fluctuated. In 2018, Paediatric cases seen at the OPD dropped to 7490 compared to the previous year's figure of 8,180. 1,742 children were admitted into the Paediatric ward with 890 cases admitted to the Special Care Baby Unit (SCBU) in the absence of a NICU (Neonatal Intensive Care Unit). The neonatal admissions due to external referrals equally decreased by 1.9% (from 28% in 2017 to 26.1% in 2018).

3.7.1 TOP 10 CAUSES OF CHILD HEALTH ADMISSION

Pre-maturity remains the second (15.8% in 2018 and 11.1% in 2017) leading cause of child admission between 2017 and 2018. Neonatal Jaundice was recorded as the leading cause of admission as compared to Bronchopneumonia in 2017. Neonatal Asphyxia Birth equally remained the fifth leading cause of admission between 2017 and 2018. Tonsillitis among children is also gradually rising and in 2018, 56 cases were admitted,

representing 3.0% and the 10th ranked position among the top 10 child admission for 2018. This is illustrated is table 3.7.1.1 and figure 3.7.1.1 below.

S/NO	2017			2018			
	Cause Of Admission	Total Admission	%	Cause Of Admission	Total Admission	%	
1.	Bronchopneumonia	326	12.5	Jaundice (neonatal)	392	21.1%	
2.	Pre-maturity	290	11.1	Prematurity	293	15.8%	
3.	Neonatal jaundice	257	9.9	Sepsis (neonatal)	275	14.8%	
4.	Sepsis	196	7.5	Bronchopneumonia	251	13.5%	
5.	Asphyxia (Neonatal)	142	5.5	Asphyxia Birth (neonatal)	215	11.6%	
6.	Anaemia	110	4.2	Malaria	153	8.2%	
7.	Hernia	85	3.3	Anaemia	96	5.2%	
8.	Sickle Cell Crisis	72	2.8	Hernia	64	3.4%	
9.	Bronchiolitis	50	1.9	Sickle Cell Crises	64	3.4%	
10.	Burns	40	1.5	Tonsillitis	56	3.0%	
	Others	1.037	39.8	TOTAL	1,859	100%	

Table 3.7.1. 1: Top 10 Causes of Child Health Admission

Figure 3.7.1. 1: Top 10 Causes of Child Health Admission



3.7.2 CHILD HEALTH PERFORMANCE INDICATORS

Number of babies delivered at the facility over the past six (6) years have continuously risen and by 2.4% in 2018 (from 3,179 in 2017 to 3,256 in 2018). The facility was able to achieve a 45.3% reduction in the Fresh still birth whilst greatly concerned about the continuous rise in the macerated still births. In 2018, the macerated still births increased significantly by 64.8% (from 54 deaths in 2017 to 89 deaths in 2018). The under-five mortality rate equally went up over the previous year. The child health indicators in 2018 have not seen much improvement in performance and needs urgent holistic approach for a targeted intervention. This is demonstrated in table 3.7.2.1 below.

INDICATORS	2013	2014	2015	2016	2017	2018	REMARKS
Number Of Babies	2,773	2,730	2,945	3,027	3,179	3,256	2.4% Increase

Live Births	2,581	2,590	2,789	2,870	3,072	3,138	2.1% Increase
Still Births	192	140	156	161	107	118	10.3%
	FSB – 90	FSB – 65	FSB – 96	FSB – 76	FSB – 53	FSB – 29	FSB - 45.3% decr.
	MSB – 102	MSB – 75	MSB – 60	MSB - 85	MSB - 54	MSB - 89	MSB – 64.8% incr.
Still Birth Rate Per 1000	69	51	53	53	34	36	5.9% increase
Live Birth							
Infants Admissions-	1,157	1,286	1,172	1,352	1,442	1,697	17.7% increase
Institutional							
Number Of < 5 Deaths	285	254	237	250	219	242	10.5%
Under 5 Mortality Rate	110/1000	98/1000	85/1000	87/1000	71/1000	77/1000	increased
(/1000 LB)	LB	LB	LB	LB	LB	LB	
Infant Deaths	272	221	213	236	201	216	7.5% increase
Neonatal Deaths	143	189	173	207	180	197	9.4% increase

3.7.3 NEONATAL DEATHS AUDITED

The facility was able to Audit 95% of all the neonatal deaths in 2018. Unfortunately, the strategies implemented could not translate into an improvement in the neonatal mortality. In 2018, the facility recorded an increase in neonatal mortality rate from 59/1000LB in 2017 to 63/1000LB in 2018 with 9.4% increase in the total number of neonatal deaths from 180 deaths in 2017 to 197 in 2018 as illustrated in figure 3.7.3.1 below. Further, under one (1) year mortality in 2018 also increased from 65/1000LB in 2017 to 69/1000LB as demonstrated in figure 3.7.3.2 below.

The under one (1) year mortality rate continue to fluctuate over the past four years as illustrated in figure 3.7.3. 2 below. From figure 3.7.3.3 below, the highest of 71 neonatal deaths occurred among the weight range of 2.5kg and 4kg. Further, 35 of the deaths were recorded between the weight range of 1.5kg and 2.5kg.

Furthermore, the highest neonatal deaths occurred in the month of September with the least in the month of May. This is graphically illustrated in figure 3.7.3.4 below. It is perceived by many that, the higher a pregnancy is carried to term, the higher the chances of survival of the baby. Interestingly, the facility aside recording high macerated still birth, equally recorded the highest neonatal deaths of 93, occurring among babies with a gestational age range of 37 weeks and above and the least (33 deaths) occurring within 32 and 36 gestational weeks as shown in figure 3.7.3.5 below. This is of great concern to all stakeholders at every level. A study into why? would be useful for future targeted intervention. Out of the 168 neonatal deaths audited, majority (87 deaths) of the deaths occurred in less than 24hours of admission at the facility. 59 of the neonatal deaths were also recorded between 24 hours (1day) to 6 days of admission at the facility. The 22 of the deaths also occurred from 7 days and above as the least. This is shown in figure 3.7.3.6 below. A holistic measure is required, if the facility and stakeholders are determined to improve on the chances of survival of these babies at the facility.

Also in 2018, out of the neonatal deaths recoded at the facility, 99 were cases referred from the peripheral facilities and 69 were cases being managed within CCTH. Figure 3.7.3.1 to figure 3.7.3.7 below provides a graphical illustration of all the neonatal deaths audited in 2018.

Figure 3.7.3. 1: Rate of Neonatal Mortality Audited, 2015-2018



Figure 3.7.3. 2: Rate of <1-Year Mortality, 2015-2018



Figure 3.7.3. 3: Neonatal Mortality Audited By Weight







Figure 3.7.3. 5: Neonatal Mortality Audited By Gestational Age



Figure 3.7.3. 6: Neonatal Mortality Audited By Length Of Hospital Stay



Figure 3.7.3. 7: Neonatal Mortality Audited By Place Of Delivery



3.7.4 UNDER 5 MORTALITY

For the past four years, the facility's under-five mortality rate kept fluctuating. The facility was unable to sustain the gains made in 2017. There was a significant increase in the under-five mortality rate from 71/1000LB to 77/1000LB. This is illustrated in figure 3.7.4.1. A call for a critical audit into the deaths to ascertain the contributing factors is urgent.



Figure 3.7.4. 1: RATE OF UNDER 5 YEAR MORTALITY /1000 LB, 2015-2018

3.7.4.1 TOP TEN CAUSES OF < 5 MORTALITY

Pre-maturity over the years have been recorded at the facility as the leading cause of mortality and mostly the second highest among the top 10 causes of admission. The survival chances of babies with asphyxia at the facility also remains a challenge. Despite being the 5th among top 10 admissions, asphyxia accounts for the second leading cause of under-five mortality. Also, although the facility rarely admits meningitis cases, they account for the 7th ranked cause of mortality as illustrated in the figure below. Cases of malnutrition are equally a concern to all stakeholders and need targeted intervention to improve the survival chances of these children.



Figure 3.7.4.1. 1: Top Ten Causes of < 5 Mortality

3.7.4.2: CHILD HEALTH - ANALYSIS OF SPECIALIST CLINICAL ATTENDANCE

CCTH has over the years been providing paediatric specialist services but had challenge in the disaggregating the data. However, in 2018, efforts were put in place to capture the cases for effective decision making. The facility in 2018, 168 children/babies were diagnosed of having neurological conditions and 99 renal disorders/conditions. Asthma cases among children was 87. Details provided in table 3.7.4.2.1 below. There is the need for further enquiry into why the increasing incidences of such conditions among children especially the renal conditions.

PAEDICS CLINICS	2018
Paedics Asthma	87
Paedics NEURO	168
Paedics Renal	99
Paedics Cardio	30
NICU Follow Up	155

Table 3.7.4.2. 1: Trend in OPD Utilization of Paediatric Specialist Services in 2018

3.8: SURGICAL SERVICES

Surgical department provides services such as Orthopaedic, Neuro, Uro, Plastics, General Surgeries, Maxillofacial and Dental, Eye and ENT Services. Out of the 8 surgical Services, 4 recorded an increase in their 2018 attendants. General surgical clinic recorded 25.7% increase in attendants. There was 5.9% rise in Orthopaedic cases, whilst Uro-surgical attendants went up by 25.3%. Also, 12.5% rise was recorded in neuro-surgical cases. However, Plastic surgical cases dropped significant in 2018. Ent, Eye and Maxillofacial and Dental equally recorded a reduction of 6.7%, 4.6%, and 6.7% respectively. Efforts need to be made to ascertain the reasons for the drop.

3.8.1 THEATRE SERVICES UTILIZATION

The hospital up until 2018, recorded a continuous and steady rise in the number of surgeries performed annual. However, in 2018, total surgeries performed dropped by 3.2% from 3853 in 2017 and 3728 in 2018, despite the improvement in surgeon surgery ratio from 1:148 in 2017 to 1:139 in 2018. The theatre death rate reduced by 0.1% which is demonstrated in figure 3.8.1.1 below. Further, figure 3.8.1.2 below showcase the surgical operations under the two main disciplines. Main surgical department and the Obstetrics and Gynaecological surgical department. From the graph below, the major surgical operations performed under the department of surgery dropped by 12.8% whereas the OBGY department recorded an increase of 19.7%. However, both

department of surgery and the OBGY recorded a decline in their minor operations by 32.1% and 41.7% respectively.



Figure 3.8.1. 1: Five Year Trend Analysis of Surgeries Performed (2014-2018)

Figure 3.8.1. 2: Trend of Theatre Services Utilization by Specialty



3.8.3: TOP TEN SURGICAL OPERATIONS

Caesarean section remained the leading cause of surgical operations at the facility. This may be attributable to late referrals from peripheral facilities and choice of preference from some individual mothers in general. In 2018, caesarean section went up by 40% over the previous year (from 1219 cases done in 2017 to 1492 cases in 2018). ENT cases remained the 5th ranked among the top 10 causes of surgical operations at the facility with a rather worrying increase in Tonsils & Adenoid cases. Details provided in Table 3.8.3.1 below.

	Type of Case 2017	No. Performed	Type of Case- 2018	No. Performed
1	Caesarean Section	1,219 (10% Increase)	Caesarean Section	1,492(40.0%)
2	Hernia- Reducible	264 (2% Increase)	Eye Surgeries	232(6.2%)
3	Laparotomy- Exploratory	240 (21% Increase)	Hernia- Reducible	228(6.1%)
4	Eye Surgeries	230 (4% Decrease)	Laparotomy-	170(4.6%)
			Exploratory	
5	ENT Operations	212 (56% Increase)	ENT Operations	152(4.1%)
6	Plastics Surgeries	100 (10% Increase)	Laparotomy- Ectopic	81(2.2%)
7	Operations on Fractures	87 (12% Increase)	Appendectomy	75(2.0%)
8	Myomectomy	80 (23% Increase)	Myomectomy	75(2.0%)
9	Appendectomy	72 (6% Decrease)	Removal of Tonsils &	72(1.9%)
			Adenoid	
10	Mastectomy	70 (1.8%)	Operations On	52(1.4%)
			Fractures	
	Total Operations	3,853		2,629

Table 3.8.3. 1: Top Surgical Operations (2017 - 2018)

3.9: DIAGNOSTIC SERVICES UTLIZATION

A lot of progress has been made by the facility towards the improvement of diagnostics services. Laboratory investigations increased from 118,392 in 2014 to 275,329 in 2018 with a 3.3% increase over 2017 (from 266,635 in 2017 to 275,329 in 2018). Also, the radiology investigations equally increased by 19.7% over the previous year (from 17,342 in 2017 to 20,766 in 2018).

There was a significant increase in some of the laboratory investigations in 2018. For instance, there was 33.7% rise in Microbiology investigations (from 2615 tests in 2017 to 3496 in 2018). Due to the rising incidences of kidney related diseases and the awareness being created, Kidney Function Test (KFT) turn to be the highest laboratory investigations done at the facility. In 2018, KFT done went up by 0.6% (from 106,146 in 2017 to 106,809 in 2018). However, serology investigations dropped by 19.4% (from 51103 in 2017 to 41212 in 2018).

Liver function test and Haematology investigations form the second and third among the laboratory Investigations done at the facility. However, there was 2.5% increase in LFT from 95911 in 2017 and 93535 in 2018 whilst Haematology investigations reduced by 10.2% (from 89938 in 2017 to 80801 in 2018). Autopsies performed by pathology department also increased by 1.2% (from 244 in 2017 to 241 in 2018). The graph in figure 3.9.1 below provides the comparative trend performance analysis of the diagnostic department.



Figure 3.9. 1: Trend Analysis of the Various Diagnostic Investigations (2014 to 2018)

3.10 BLOOD TRANSFUSION AND BLOOD DONATION CATEGORIES

The demand for blood and blood products kept increasing especially when haemorrhage continue to account for the leading cause of maternal death at the facility. From table 3.10.1 below, transfusion of Whole Blood went up by 25.6% whereas, the FFP transfusion dropped by 19.7% in 2018.

The facility uses various approaches to increase and ensure availability of blood for use especially in emergencies. Such as, mobile session (voluntary blood donation outreach), walk-in, replacement/deposited of blood by clients prior to their elective surgeries or after being transfused. Bloods collected throughout reach/ mobile sections fortunately went up by 15.6% (from 1899 in 2017 to 2196 in 2018). However, in 2018, out of the bloods received by the blood bank, 394 were unsafe. Details provided in table 3.10.2 below.

Table 3.10. 1 trend in blood transfusion from 2016 - 2018

INDICATOR	2016	2017	2018	% Diff.
WHOLE BLOOD CROSSMATCHED	4, 258	4, 901	5, 435	9.8% incr.
WHOLE BLOOD TRANSFUSED	3, 924	4, 229	5, 313	25.6% incr.
FFP TRANSFUSED	570	822	660	19.7% decr.

Table 3.10. 2 Trend In Blood Donation From 2016 - 2018

CROURS	QUAI	% Diff.		
GROUPS	2016	2017	2018	
REPLACEMENT/	4, 062	3, 509	3, 331	5.1% decr.
PREDEPOSIT				
WALK-IN	192	89	95	6.7% incr.
MOBILE SESSION	3, 361	1, 899	2, 196	15.6% incr.
(UNSCREENED)				
ANC	201	195	129	33.8% decr.
UNSAFE BLOOD	194	435	394	9.4% decr.
/DISCARDED				

3.11 LABORATORY SAMPLES REFERRED OUTSIDE CCTH

The facility over the years identified and liaises with other public laboratory institutions to conduct investigations on suspected cases such as, H1N1, Rubella, Ebola, Buruli Ulcer etc. In 2018, the number of suspected H1N1 cases dropped significantly by 65% (from 256 cases in 2017 to 89 cases in 2018). Also, suspected Rubella cases reduced by 42% (from 7 cases in 2017 to 4 cases in 2018). There was no record of Burruli Ulcer case (suspected or confirmed) in 2018 as compared to the 3 cases suspected and 1 confirmed case in 2017. Details provided in table 3.11.1 below.

TESTS	2016	2017	2018	% Diff.
TB CULTURE (DR, DST)	10	4	13	225% incr.
TB CULTURE (LPA)	-	-	9	-
H1N1 (INFLUENZA)	18	256	89	65% decr.
RUBELLA	8	7	4	42.9% decr.
BURULI ULCER	-	3 (1)	0	-

Table 3.11. 1: Laboratory Samples Referred to Outside Facilities

3.12: DIALYSIS SERVICE UTILIZATION

The Hospital's Dialysis Center is the second largest renal facility in Ghana and it's a key referral facility 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 facility provides dialysis treatment for both acute and chronic kidney patients who are mostly resident in the Central and Western Regions.

3.12.1: DIALYSIS SERVICE UTILIZATION

Since the introduction of renal clinic at the facility, data on the prevalence of kidney disease have been significantly increasing over the past four years at the OPD. Patients attending renal clinic increased from 389 in 2016 to 888 2018 respectively. This reflects on the increasing number of patients requiring dialysis and the increase in KFT at the facility. Dialysis patients increased from 75 patients in 2017 to 195 patients in 2018 whilst the dialysis sections also went up by 18.1% (from 4457 sections in 2017 to 5265 sections in 2018). The capacity to increase the dialysis sections improved over the years from 1185 sections in 2014 to 5265 sections in 2018.



Figure 3.12. 1: Trend in Dialysis Care (2014 - 2018)

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 facility achieved a number of infrastructural activities planned. Such as;

- 1. The completion of the construction of the 24-Hour Pharmacy / Retail Shop building
- 2. Completed the construction of the Obstetrics Emergency Unit building
- Completed the construction of building to house the Healthcare Waste Treatment Equipment
- 4. Constructed overhead water storage tank, waste water inspection chambers around Medical Waste Treatment building, and improved on electricity supply to the building
- 5. Constructed a concrete skip loader platform at general waste holding area
- 6. Constructed concrete platform for Containerized (20-footer container0 X-Ray Machine received under TB Control Programme
- 7. Renovated Residential Accommodation Blocks F, H and bungalow No. 2
- 8. Resurfacing of hospital inner perimeter roads
- 9. Rehabilitated the Sewerage Treatment Plant (waste stabilization pond)
- 10. Designed and re-constructed the collapsed underground drain at Kitchen
- 11. Retiled Delivery Suite Theatre No. 1 and Surgical Suite Theatre No. 3
- 12. Reconstructed collapsed Female Medical Ward ceiling
- 13. Reconstructed Surgical Suite Corridor and Changing Room ceiling
- 14. Repaired and renovated several existing infrastructures, including ceilings, doors, furniture, fixtures and fittings in the hospital and official residential accommodation
- 15. Repaired, replaced, and installed plumbing and electrical fittings at various places in the hospital
- 16. Repair of multiple leakages on the Liquefied Petroleum Gas (LPG) tanks and lines, and installation of new galvanize pipelines to connect the tank to the Kitchen Stoves
- 17. Replaced defective insect proof nets at some wards and out-patient department
- 18. Painted the façade of the Outpatient Department, and parts of Administration, Outpatient Department, X-Ray Department, Laboratory, A&E Dept. and Lecture Hall.
- 19. Updated Accommodation Register
- 20. Completed update of Asset Register and marking of assets

4.3 ICT INFRASTRUCTURE

Various clinical activities were performed in 2018. Such as,

- 1. Provision of technical support for the implementation of the government e-health pilot project in CCTH (LHIMS software introduction and implementation).
- 2. Organized in-service training / refresher course for staff on how to use the LHIMS software.
- 3. Liaised with and facilitated the work of Lightwave E-Health Solutions (the e-health software vendor) to customize the LHIMS software to suite the service operations in CCTH.
- 4. Assisted the Finance Division of the hospital to implement the GIFMIS software.
- 5. Extended the 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, and other service points in the hospital.
- 6. Contributed to on-going work on the development of the hospital website and its maintenance.
- 7. Did significantly well in executing all preventive maintenance plans for computers, networking devices and other ICT equipment.
- 8. Repaired and/or facilitated the repair of all faulty printers and photocopiers machines and some computers. The unit repaired about 22 faulty desktop computers power packs thereby saving the hospital several thousands of Ghana Cedis that would have been spent in buying new computers or new power packs which cannot easily be found on the Ghanaian market.
- 9. Facilitated the repair of several Uninterrupted Power Supply (UPS) that have been faulty for several years and the repaired UPS were attached to computers at key areas.
- 10. Trunked networking cables hanging loosely or dangling on the hospital premises and in offices and services areas.
- 11. Carried out software maintenance of the four (4) main client service software used in the hospital. These are the HAMS, LHIMS, PHARMAS and HR soft wares.
- 12. 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 1,500 verbal maintenance requests and over 3,000 requests from Wards, A&E, and Operating Theatres for supply of medical oxygen supply in cylinders

4.4 GENERAL AND MEDICAL EQUIPMENT

- Planned preventive maintenance were undertaken on various equipment; such as, CSSD & Laundry equipment, Passenger Lift, Power Generators, Imaging Equipment, Dialysis Machines, Suction Machines, Ventilators, Patient Monitors, Anaesthesia Machines, beds, bedside lockers, trolleys, wheelchairs, airconditioners, etc.
- 2. Repaired or facilitated the repair of various faulty instruments and equipment; Airconditioners, 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.

- 3. Refurbished steel cabinets, couches, trolleys, tables, etc.
- 4. Undertook a major rehabilitation of one mortuary cold room which had been abandoned for years. It was expanded into a 20 bodies capacity and in use.
- 5. Installed or assisted in the instalment of various equipment purchased or received through donations: key amongst them are,
 - Healthcare Waste Treatment Autoclaves (under UNDP funded project)
 - Anaesthesia Machines, Patient Monitors, Suction Machines, Oxygen Flowmeters, Refrigerators, etc.
 - Theatre Bed, Patient Trolleys, Patient Screens, Wheelchairs, etc.
- The hospital entered into an agreement with Fuji Company for the placement of Fuji X-Ray Machine at the Radiology Department and maintenance of all our Imaging Equipment. In return the hospital will buy all its X-Ray films required from Fuji Company.

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 Percentage of equipment down time (CT-SCAN as proxy) at the facility improved from 7.69% in 2017 to 1.92% in 2018. However, the MRI down time remained at 100% because the contractor is still yet to hand over the equipment since the construction and installation due to technical faults. Additionally, Equipment Utilization (CT-SCAN as proxy) improved from 34.76% in 2017 to 74.18% in 2018 at the facility. Table 4.5.1 to table 4.5.3 below provides a detailed analysis of selected medical equipment down time and utilization.

A. LABORATORY EQUIPMENT									
LABORATORY ANALYZER	DOWN TIME	REMARKS							
TYPE	RATE								
Immuno Analyzer (CD4)	0%								
Immuno Analyzer (CD4, CD3,	100%	This analyzer was faulty and could not be used the							
CD8 & CD45)		whole year							
Microbiology (Blood Culture)	0%								
Immuno Analyzer (Hormones)	0%								
HIV Viral Load	3.85%	This analyzer was faulty and out of use for 2 weeks							
TB (PCR)	0%								
TB Culture	15.39%	This analyzer was faulty and out of use for 8 weeks							
Haematology	0%								
Biochemistry	0.82%	This analyzer was faulty and out of use for 3 days							

 Table 4.5. 1: Selected Equipment Downtime Analysis of Laboratory and Imaging

 Equipment

B. IMAGING EQUIPMENT

	2017	2018	
Ultrasound Machine	0%	0%	
Percentage equipment down time (CT-SCAN)	7.69%	1.92%	

Magnetic Resonance Imaging (MRI)	100%	100%	The contractor has not been able to hand
			over this equipment since construction and
			installation because of technical faults

A. LABORATORY EQUIPMENT									
LABORATORY ANALYZER MAKE & MODEL	ANALYZER TYPE	AVG. EQUIPMENT OPERATING	AVG. NUMBER OF HOURS EQUIPMENT	EQUIPMENT UTILIZATION RATE					
		HOURS PER WEEK	WAS USED PER WEEK	2017	2018				
Facs Count,	Immuno	8 hrs * 5 days	12 hours	*5.6%	%				
Becton Dickinson	Analyzer (CD4)	(40 hours)							
Facs Calibur,	Immuno	8 hrs * 5 days	-	*0%					
Becton Dickson	Analyzer	(40 hours)							
	(CD4, CD3,								
	CD8 & CD45)								
Bactec 9050,	Microbiology	24/7	168 hours	*100%	%				
Becton Dickson	(Blood Culture)	(168 hours)							
Cobas e411,	Immuno	8 hrs * 5 days	40 hours	*100%	%				
Roche Hitachi	Analyzer (Hormones)	(40 hours)							
Cobas AmpliPrep	HIV Viral Load	12 hrs * 7 days	84 hours	*100%	%				
& Cobas Tagman,		(84 hours)							
Roche									
GeneXpert,	TB (PCR)	10 hrs * 5 days	50 hours	*100%	%				
Cepheid		(50 hours)							
Bactec MGIT 960,	TB Culture	24/7	24/7	*100%	%				
Becton Dickinson		(168 hours)	(168 hours)						
Sysmex, XS-500i	Haematology	24/7	168 hours	*100%	%				
		(168 hours)							
Selectra Pros,	Biochemistry	12 hrs * 7 days	84 hours	*100%	%				
ELITech Group		(84 hours)							

Table 4.5. 2: Selected Equipment Utilization - Laboratory

Table 4.5. 3: Equipment	Utilization - IMAGING
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IMAGING EQUIPMENT									
EQUIPMENT TYPE	AVERAGE EQUIPMENT OPERATING	EQUIPMENT UTILIZATION RATE PER YEAR		EQUIPMENT UTILIZATION RATE PER YEAR		REMARKS			
	HOURS PER WEEK	2017	2018						
CT-SCAN	50 hours (8 hrs * 5 days = 40 hrs + Emergency Calls of approx. 10 hours per week)	34.76%	74.18%	The low rate of utilization in 2017 was because 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					
ULTRASOUND MACHINE		N/A	-	-					
FLUOROSCOPY MACHINE		N/A	-	-					
MAGNETIC RESONANCE IMAGING (MRI)		N/A	N/A	This equipment was never handed over since its installation due to technical faults. The MRI building also leaks badly. These issues have been communicated to the contracting client, the Ministry of Health.					

4.6: TRANSPORT SERVICES

The hospital's fleet of vehicles have increased from 11 to 14 in 2018. 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 and table 4.6.2 below shows details of the number of vehicles, their age, manufacture and types, as well as the colour codes allocation based on the age of the vehicle during 2018 inventory.

Table 4.6. 1: Fleet Inventory-Vehicle

Registratio	Age By	Location	Source	Manufactur	Types	Chasis No.	Fuel	Others	Year
n	Month			e					PUR.
GV 464 - 18	8 months	Phar. Div.	GOG	Nissan	Pick-up	ADNCPUD22 Z0062869	Diesel	4WD	2018
GV 2378 - 18	7 months	Pool	GOG	Nissan	Mini Bus	JNIVC4E26Z 0015431	Diesel		2018
GV 43-16	2 months	C.E.O	GOG	Toyota	Pick-up	MROFR22G 600730941	Diesel	4WD	2016
GV 1422-15	3 months	Pool	GOG	Nissan	Pick-up	MNTVCU402 6050764	Diesel	4WD	2015

Registratio n	Age By Month	Location	Source	Manufactur e	Types	Chasis No.	Fuel	Others	Year
									PUR.
GV 2451-14	4 months	Pool	GOG	Ford	Ambu.	IFDSS3EL3D 10203	Petro	4WD	2014
GV 427-14	4 months	Pool	GOG	Nissan	Pick-up	MNTVCUD4 0Z603228	Diesel	4WD	2014
GV 2060-14	7 months	Pool	GOG	Nissan	Pick-up	ADNJ980000 E004896	Diesel	4WD	2011
GC 7085-11	7 months	Pool	GOG	Hyundai	Bus	KMJAD17C6 A6044446	Diesel	4WD	2011
GC 7086-11	7 months	Pool	GOG	Hyundai	Bus	KMJNG1717 BC050807	Diesel	4WD	2011
GV 72-10	8 months	garage	GOG	Great Wall	Pick-up	ICWDB1779 B099059	Diesel	4WD	2010
GV 271-10	8 months	parked	GOG	Great Wall	Pick-up	WV2ZZZ702 2402315	Diesel	4WD	2010
GT 5648-09	9 months	Pool	GOG	Toyota	Pick-up	341194	Diesel	4WD	2009
GW 699-w	13 months	parked	GOG	Peugeot	Boxer(Hearse)	VF32CCMNB 17503883	Diesel	4WD	2005
GV 368-V	14 months	boarded	GOG	Mazda	Pick-up	MM7UNY080 0202975	Diesel	4WD	2003
	6 months	parked	GOG	Nantang	Mot. Bike	162FMJ0810 50252	Petrol		2012
GV 12M-14	6 months	stolen	GOG	Nantang	Mot. Bike	167FMJ0810 52114	Petrol		2012

Table 4.6. 2: Vehicle Inventory By Age Block

AGE BLOCK (YEARS)	ZONE	NUMBER
1-5	Green	6
6-9	Yellow	6
10 and above	Red	2

CHAPTER FIVE

FINANCIAL PERFORMANCE

5.1 INTRODUCTION

The Financial performance of the hospital is dependent on various internal and external factors. The facility 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 2018)

The facility was unable to achieve the revenue target for the year 2018. Due to various factors such as, the decline in some of the specialist services in general as well some technical challenges in NHIA claim processing with regards to medicines served on the newly installed e-health software (LHIMS software) in 2018. Generally, the facility recorded 10.9% increase in its total revenue over the previous year. Revenue under services went up marginally by 3.9% whilst revenue under medicine increased by 19.5% in 2018. In the same light, expenditure of the facility went up significantly by 42.1% over

the previous year. Table 5.3.1 below provides detailed trend analysis of the financial performance of the facility from 2014 to 2018.

Financial Highlight	Target	PER F +/-	2018	2017	2016	2015	2014						
REVENUE													
	[1	[[[[
SERVICES	17,664,070.81	+3.9%	12,982,266.79	12,497,893	10,287,152	7,559,080	5,048,006						
MEDICINE	6,335,929.19	+19.5	5,962,679.10	4,591,576	3,874,689	2,518,013	1,989,254						
S		%											
TOTAL	24,000,000.00	+10.9	18,944,945.89	17,089,470	14,161,833	10,077,093	7,037,261						
		%											
			EXPENDI	TURE									
SERVICES	18,000,000.00	+36.7 %	15,450,199.35	11,304,559	9,829,251	6,440,080	4,618,233						
MEDICINE S	4000,000.00	+64.7 %	4,485,784.57	2,723,225	2,949,233	2,542,074	1,969,146						
TOTAL	22,000,000.00	+42.1 %	19,935,983.92	14,027,784	12,778,483	8,982,154	6,587,379						

 Table 5.3. 1 Performance Summary 2018

5.4 TREND OF IGF BUDGET EXECUTION GHC

Generally, the facility's revenue target achieve was 78.9% in 2018 compared to 90.56% achieved in 2017. On the other hand, the overall expenditure budget achieved was 96.6% in 2018 as compared to 76.79% in 2018. Interestingly, the revenue is not proportional to the expenditure. Revenue target achieved under services dropped to 73.5% as compared to 90.5% achieved in 2018 whilst revenue target achieved under medicine also dropped to 94.9% as compared to 97.0% in 2018. The facility in 2018 exceeding expenditure budget under medicine to 112.1% as compared to 2017 figure of 57.53%. There is the need for a critical review of the continuous reduction in revenue to ascertain the contributing factors and addressed holistically. Table 5.4.1 below provides a detailed financial performance trend analysis of the facility from 2015 to 2018.

I able	Table 5.4. 1: Trend of IGF Budget Execution GHU										
Category	% Target 2018 GH¢ Achieved		GH¢	2017	GH¢	2016	GH¢	2015 GH¢			
	2018	2017									
			Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	
REVENUE										•	
Services	73.5%	90.56%	17,664,070.81	12,982,266.79	13,800,000	12,497,894	9,350,000	10,287,152	7,254,0 00	7,559,0 80	
Medicine	94.1%	97.0%	6,335,929.19	5,962,679.10	4,733,500	4,591,576	3,200,000	3,874,689	2,880,0 00	2,518,0 13	
TOTAL	78.9%	92.21%	24,000,000.00	18,944,945.89	18,533,500	17,089,470	12,550,000	14,161,833	10,134, 000	10,068, 093	
EXPENDIT	URE		•								
Services	85.8%	83.53%	18,000,000.00	15,450,199.35	13,533,500	11,304,559	8,063,000	9,829,251	7,437,4 00	6,440,0 80	
Medicines	112.1 %	57.53%	4000,000.00	4,485,784.57	4,733,500	2,723,225	3,200,000	2,949,233	2,208,0 00	2,542,0 74	
TOTAL	96.6%	76.79%	22,000,000.00	19,935,983.92	18,267,000	14,027,784	11,263,000	12,778,483	9,645,4 00	8,982,1 54	

Table 5.4.	1: '	Trend	of IGF	Budget	Execution	GH ¢
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5.5 IGF PERFORMANCE STRUCTURE GH¢

The hospital improved on its revenue in 2018 by 10.9%. However, revenue from services and medicines under NHIS dropped by 4.67% and 16.46% respectively. This indicates that, the day-to-day operations of the hospital are heavily relied on the direct revenue generated from out of pocket payments on services that are not covered under the NHIS at the facility. From table 5.5.1 below, the facility recorded 23.4% increase in cash and carry revenue.

Income/Revenue Status (Cash and Carry & NHIS)							
	TOTAL REVENUE	% Diff.	NHIS 2018	NHIS 2017	Cash and Carry 2017	Cash and Carry 2018	% Diff.
Service	13,129,293.79	- 4.67	6,544,400.88	6,865,330.00	5,632,563.96	6,584,892.91	+16.9%
Medicines & Pharmaceuticals	5,733,912.53	-16.46	3,085,150.67	3,692,913.74	1,851,656.47	2,648,761.86	+43%
Total	18,863,206.32	-8.80	9,629,551.55	10,558,243.74	7,484,220.43	9,233,654.77	+23.4%

Table 5.5. 1: IGF Performance Structure GH¢

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

The facility largely generates its revenue from services being provided. As such, a decline in a service would affect revenue greatly. Over the past three years, physiotherapy attendants continue to reduce. This development resulted in the significant dropped in physiotherapy revenue by 79.45% in 2018 over the previous year. In the same light, the facility in 2018 recorded significant increase in OPD attended and this has translated in the increase in OPD revenue by 55.32%. Also, clients who access dialysis services at the facility in 2018 increased from 75 clients in 2017 to 195 clients in 2018. Hence, the 14.67% increase in revenue from dialysis for 2018. Table 5.6.1 below provides a detailed analysis of revenue contribution from the various departments/Units within the facility.

Services	Percentage Change	2018	2017	2016	2015
Surgical	-19.94%	1,853,007.15	2,314,435.64	1,839,016	910,716.39
Medical	+7.68%	1,747,227.41	1,622,621.93	1,321,301	1,171,193.96
C.T. Scan		573,855.00			
Laboratory	+14.79%	566,900.15	1,697,126.98	985,145	567,841.77
X-ray		807,341.00			
OPD	55.32%	3,064,379.82	1,972,919.35	1,693,451	1,321,423.45
Obstetrics &	-6.99%	1,661,906.95	1,786,889.27	1,472,884	1,069,238.50
Gynaecology					
Dental	30.57%	158,010.69	121,019.47	-	-
Child Health	-31.46%	645,090.61	941,171.47	901,565	555,834.98

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

Ear, Nose &	14.41%	109,508.33	95,715.11	-	-
Throat					
Eye Care	-52.86%	102,769.95	218,029.30	-	-
Mortuary	-1.84%	248,811.00	253,472.41	269,311	212,648.56
Physiotherapy	-79.45%	33,580.68	163,400.90	152,486	117,601.56
Dialysis	14.67%	1,008,281.64	879,302.71	748,219	464,541.18
Others	-4.98%	401,596.41	422,653.75	-	-
Total	3.95%	12,982,266.79	12,488,758.29	14,161,833	10,077,092.64

Total expenditure at the facility went up by 27.82% in 2018 over the previous year. The expenditure of the facility is grouped under three main categories. Namely, goods and services, compensations and investments. Although the facility recorded 10.9% increase in total revenue for 2018, the revenue target was 78.9% achieved in 2018 compared to 90.56% achieved in 2017. There is decline in specialist service attendants as well as other factors resultant hindering the attainment of the set target. Table 5.6.2 below provides detailed analysis on the facility's expenditure for 2018 and 2017.

Table 5.6. 2 Financial Performance, Expenditure

	PERF. +/-	2018	2017
Compensation	+34.93%	3,068,541.81	2,274,213.80
Goods and services	+26.56%	14,310,834.61	11,307,226.70
Investment (CAPEX)	+24.05%	648,500.01	522,788.62
Total	+27.82%	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 facility over the years is most of the time unable to implement a lot of projects due to non-availability of funds. As a result, relies heavily on services paid for out of the pocket and are not under the NHIS to keep the facility operational based on the urgency and priority. In 2018, 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 in nearly impossible to effectively implement most strategies geared towards improving service outcomes at the facility. The 5.7.1 below shows the detailed trend analysis from 2015 to 2018.

ITEM		2018	2017	2016	2015	
Claims	Submit	tted	9,629,551.55	10,549,108	9,679,184	7,046,767
Claims Paid		9,393,716.11	9,121,870	6,289,301	4,172,737	
Outstanding as at Close		8,276,944.34	8,041,109	7,241,822	4,583,583	
No.	of	Month	8	6	8	7
Outstanding						

Table 5.7. 1: Status of NHIS Claims:

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 facility.

6.2 COLLABORATORS

Table 6.2.1 provides details of the major collaborators and type of support provided to the facility in 2018.

ССТН	Collaborator(s)	Support / Contribution		
Facility level	National TB program	Donated a digital X-ray		
	Mr. Anokye Yeboah	Constructed a Mother's hostel for the facility		
Maternal Health sub-BMC	Kybele	The Kybele organization collaborated with the Maternal and Child Health Sub- BMC to undertake series of medical and surgical interventions, especially training in maternal and safe childbirth and quality improvement		
	UTAH Medical Group			
	The Church of Jesus Christ of Latter-Day Saints			
	Miss Eliza, a foreign trainee student from US			
Child Health Sub- BMC	Mrs Rebecca Akuffo Addo (First Lady)	Diapers, disposal gowns, baby dresses, etc.		
	Robert Michel Memorial Foundation (ROMMEF)	Bed sheets, pillow cases, consumables (milo, biscuits, etc.)		
	CCTH Management	provided a UPS – for oxygen concentrator		
	Level 400 UCC Medical Students	Donated 1 phototherapy machine		
	DIS Clinic, Abura, Cape Coast	Donated 1 incubator		
	Emma Locals	Donated 1 BP apparatus with pulse oximeters		
Surgical Sub- BMC	University of San Diego California	Team management in trauma		
	Stone Brook University	Treating "people with colour"		
	University of Plymouth	Through operation hernia		

 Table 6.2. 1: Collaborator(s) and Supports Received in 2018
ССТН	Collaborator(s)	Support / Contribution
ENT Unit	University of UTAH	Performed collaborative surgeries with a team from University of UTAH, UK
	Less Privileged Foundation N.G.O and the Czech Republic Embassy	Donated Hearing Assessment equipment
Laboratory Department	Noguchi and KCCR	The Medical Laboratory of the hospital collaborated with Noguchi and KCCR in conducting researches
OPD sub-BMC	Boabab NGO	donated eight (8) wheel chairs
	Radio Central and Cape FM	Collaboration for weekly health talks on radio
Pharmacy	Pharmanova	Donated a Laminar flow cabinet
Directorate	Company	
Internal Medicine sub-BMC	Effia Nkwanta Hospital	Training of nurses for their newly established dialysis unit

SECTION 3

CHAPTER SEVEN

OUT PATIENT SUB-BUDGET MANAGEMENT CENTRE

7.1 BACKGROUND

The Outpatient Department (OPD) of the facility 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.

Table 7.2.1 below provides the list of services provided at the OPD.

7.2 OPD SERVICES

Below are the services provided by clinic.

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 2018 PERFORMANCE AGAINST CCTH STRATEGIC OBJECTIVES

Table 7.3. 1: Summary of OPD Performance against CCTH Strategic Objectives

2018 OUTCOME AND OUTPUT F	PERFORM	ANCE		
CCTH Objective 1: INCREASE THE SCOPE AND IMPRO	VE THE Q	UALITY O	F SERVICES	
		Actual	2018 Target	Remark
Access and Quality Outcome - OPD	2017	2018		
i. Percentage of clients satisfied with services at OPD increased by 0.6%	86.7 %	87.3%		
ii. Patients with health insurance increased by 20.9%	109,2 80	132,1 62		
iii. Patients without Health insurance increased by 203.4%	8574	26002		
iv. Access to OPD Service attendance Improved by 34%	117,8 54	158,1 64	+ 10%	
V. Referrals –In decreased by 2.2% decrease	4,386	4,292		
vi. OPD cases seen per doctor improved	1:103 4	1:716		
vii. OPD Cases seen per specialist increased	1:167 6	1:222 4		
1. Protocols was developed and displayed at every unit				
2. Four (4) screens have been provided to improve the	privacy in	the consult	ing rooms	
 Conducted two peer reviews at the OPD ground and 	1 st floor			
4. Appointment and review cards have been sustained	and it is or	ngoing.		
5. Regular training of staff on customer care				
6. Improvement on colour coding triaging towards reduce	ction			
 Appointed a QA focal person in charge of quality ca health and safety (OHS) issues 	are, infecti	on prevent	ion and occu	pational
CCTH OBJECTIVE 2: REDUCE COMMUNICABLE AND NON-COMM	UNICABLE	DISEASES		
 Carried out regular health education on disease pre clients 	vention, co	ontrol and r	management	to OPD
2. Provided a Veronica bucket with water and soap to r	promote re	oular hand	washing by p	oatients
CCTH OBJECTIVE 3: IMPROVE GOVERNANCE, RESOURCE (SYSTEMS	HUMAN &	FINANCIAL) AND MANA	GEMENT
3.1 Improve on Governance and Management System				
1. Organized two departmental staff durbars				
2. Thirty-seven (37) clinical meetings held				
3. Held six (6) management meetings				
3.2 Improve on Human Resource and Management Sys	tem			
-				
3.3 Improve on Finance Resource and Management Sys	stem			
OBJECTIVE 4: IMPROVE HEALTH RESEARCH, TEACHING AND EX		ELEARNING	EXPERIENCE	
4.1 Improve on Research:				
-				
1.21mprove on Teaching and Learning:				
1. Continuously hosted several students', academicians	s and othe	r researche	ers.	
OBJECTIVE 5: INTENSIFY SUPPORT TO THE LOWER LEVEL OF C	ARE AND S	SERVICE DE	LIVERY POINT	S
OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BA	SE FOR TH	E DELIVERY	OF QUALITY	SERVICE

2018 OUTCOME AND OUTPUT PERFORMANCE

1. Routine repairs of equipment and furniture.

7.4 SUMMARY OF OPD PERFORMANCE

Generally, OPD attendants for 2018 improved by 34% (from 117,854 to 158,164 in 2018). Referrals –In decreased by 2.2% (from 4,386 in 2017 to 4,292 in 2018). OPD cases seen per doctor improved from 1:1034 in 2017 to 1:716 in 2018. However, OPD Cases seen per specialist increased. Further, Patients with health insurance increased by 20.9% (from 109,280 in 2017 to 132,162). Interestingly, out of the 32 clinics run at the OPD, 19 of them recorded a decline in the patients' attendants with the remaining 13 clinics recorded slight increases compared to 2017. For instance, General medical clinic attendants dropped by 18.4% and general surgery reduced by 25.7%. There was also a 3.6% decrease in Obstetrics and Gynaecological cases. Plastic surgery decreased significantly by 28% whereas, patients who came for minor procedures at the treatment room equally reduced by 17.1%. However, there was a significant increase of 25.3% in Urology clinic attendants and 44.6% increase in the Haematology clinic attendants. Out of the total 2,046 suspected cancer cases in 2018, 318 of the cancer diagnoses were confirmed. Detailed statistical analysis is provided in table *7.4.1* and *7.4.2* below on OPD's performance by clinics.

	TYPE CLINIC	2015	2016	2017	2018	% Diff.
1.	General Medical	16,617	16,232	21,060	17,184	18.4% decr.
2.	General Surgery	3,983	4,376	5,702	4,234	25.7% decr.
3.	Orthopaedic	1,913	2,223	2,347	2,485	5.9% incr.
4.	Paediatric	7,690	7,810	8,180	7,490	8.4% decr.
5.	Dermatology	357	330	359	315	12.3% decr.
6.	Urological	2,208	2,843	3,275	4,102	25.3%incre.
7.	Neuro-surgery	200	129	312	351	12.5% incr.
8.	Obstetrics & Gynaecology	20,322	15,536	17,147	16,529	3.6% decr.
9.	Asthma	297	511	787	1,036	31.6% incr.
10.	ENT	5,907	6,080	6,664	6,230	6.5% decr.
11.	Eye	6,600	8,420	9,348	8,917	4.6% decr.
12.	Cardiology	240	1,590	2,153	2104	2.3% decr.
13.	Endocrinology	-	82	125	111	11.2% decr
14.	Haematology	-	223	298	431	44.6% incr.
15.	STI / HIV	5,895	5,377	6,068	No Data	-
16.	Tuberculosis	35	42	39	42	7.7% incr.
17.	Sickle Cell	135	454	650	567	12.8% decr.
18.	Gastroenterology	170	560	690	620	10.1% decr.
19.	Anaesthesia	378	943	868	782	9.9% decr.

		-		-				
Та	ble	7.4.	1: OPD	Service	Statistical	Performance	By	Clinic

	TYPE CLINIC	2015	2016	2017	2018	% Diff.
20.	Psychology	150	163	261	301	15.3% incr.
21.	Dental & Maxillofacial	4,165	4,294	5,112	4,769	6.7% decr.
22.	Plastic Surgery	176	564	601	433	28% decr.
23.	Adolescent	57	126	218	171	21.6% decr.
24.	Diabetes	9,201	9,309	9,966	10,636	6.7% incr
25.	Hepatitis B & C	446	940	1,059	1,179	11.3% incr.
26.	Diet & Nutrition	1,743	1,417	1,916	1,265	34% decr.
27.	Physiotherapy	-	14,451	12,649	10,456	17.3% decr.
28.	Renal clinic	-	398	849	888	4.6% incr.
29.	Endocrinology	-	82	125	111	11.2% decr.
30.	Treatment Room	-	9932	9218	7646	17.1% decr.
31.	Weekend & Holiday Clinic	-	362	362	355	1.9% decr.

Table 7.4. 2 Other Statistics

S/N	INDICATOR	2017	2018
1.	OPD cases seen per doctor	1:1034	1:716
2.	OPD Cases seen per specialist	1:1676	1:2224
3.	Total suspected cancer cases	-	2,046
4.	Total number of diagnosed/confirmed cancer cases	-	318

7.5 TOP 10 OPD MORBIDITY

Hypertension (7.7%) and Diabetes (5.1%) remained the leading causes of OPD attendance. Generally, non-communicable diseases continue to remain the top 3 disease conditions annually presented at the OPD followed by communicable diseases such as the upper respiratory tract infection (2.1%). From the Illustration in figure 3.3.1 below, prostate cancer which is also increasing at an alarming rate is ranked 8th of the top 10 OPD morbidities and forms 3%. Ulcer related conditions (0.9%) and acute eye infection (0.9%) were the least among the top 10 OPD cases attended to in 2018. This is illustrated in figure 7.5.1 below.





Over the past three years, the facility has seen a continuous rise in the outpatient's attendants. However, in 2018, the was a drastic increase by 34% over the 7% increase in 2017. Interestingly there was a decline in the number of patients referred to the department by 2.2% compared to the 7.8% rise in 2017. The general increase in the total number of doctors at the facility generally impacted positively on the OPD cases seen per doctor from 1:1030 in 2017 to 1:176 in 2018, thereby reducing the workload as represented in figure 7.5.2 below.



Figure 7.5. 2: Five Year Trend of OPD Service Utilization (2014-2018)

7.6 PHYSIOTHERAPY

The Physiotherapy unit is one of the units that provides rehabilitation services at the facility. However, over the past three years' attendants continue to decline. In 2018, the

unit recorded a 17.3% reduction in client's attendants whilst in 2017, there was a 12.5% decline. This is illustrated in figure 7.6.1 below.



Figure 7.6. 1: Three-year Trend in Physiotherapy Service Utilization

Stroke cases remained the leading cause of physiotherapy service. Low back pain remains a concern 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 pain and would require physiotherapy which is the second leading cause of physiotherapy. Frozen shoulder is the least among the top 10 physio conditions seen at the department. Figure 7.6.2 below provides in a descending order, the top 10 physiotherapy cases seen in 2018.



Figure 7.6. 2: Top Ten Physiotherapy Cases Seen

Over the past three years, most of the physiotherapy cases declined. In 2018, attendants of stroke clients dropped by 14.2% compared to 2017. Cerebral palsy and cervical spondylosis cases equally reduced by 15.8% respectively. Also, Post fracture complications and other Arthritis equally reduced by 13.3% and 13.2% respectively. The

unit recorded a 21.2% drop in the club foot clients in 2018 as compared to 2017. Figure 7.6.3 below provides a detailed comparative analysis of cases seen at the physiotherapy unit between 2016 to 2018.





7.7 COLLABORATIONS AT THE OPD

- 1. Baobab NGO donated eight (8) wheel chairs to the OPD.
- 2. Collaboration with Radio central and Cape FM for weekly health talks.

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 2018 PERFORMANCE AGAINST CCTH STRATEGIC OBJECTIVE

Table 8.2. 1: A&E sub-BMC's 2018 Performance against CCTH Strategic Objectives

2018 OUTCOME AND OUTPUT F	PERFOR	MANCE				
CCTH Objective 1: INCREASE THE SCOPE AND IMPROVE THE QUALITY OF SERVICES						
		Actual	2018 Target	Rem		
				ark		
Access and Quality	2017	2018				
i. Average length of stay at the Emergency ward increased	2.8	4.2				
ii. A&E Mortality rate improved	3.3%	2.3%				
iii. Total A&E Cases increased by 32.5%	12,041	15,949				
 Pain management protocol disseminated to A&E state 	ff					
2. Improved on colour coding triaging						
 Regular training of staff on cardiopulmonary resuscitation 	ation					
CCTH OBJECTIVE 2: REDUCE COMMUNICABLE AND N	ION-CON	IMUNIC	BLE DISEASES			
-						
CCTH OBJECTIVE 3: IMPROVE GOVERNANCE, RES	OURCE	(HUMAN	& FINANCIAL)	AND		
MANAGEMENT SYSTEMS						
3.1 Improve on Governance and Management System						
 Two sub-BMC meetings were held 						
2. 26 clinical meeting held.						
3.2 Improve on Human Resource and Management Syst	tem					
1. 90% of staff were appraised						
3.3 Improve on Finance Resource and Management Sys	stem					
1. Worked with ICT and finance unit to allow costing of	A/E proce	edures on	the LHIMS			
2. Captured revenue for 2018 from non-insured pati	<i>ents</i> alor	ne = GH(C 252,636.21 (i.e	. only		
consultation, SIL, oxygen, consumables, and detention	on fees) (GDRG no	n inclusive			
OBJECTIVE 4: IMPROVE HEALTH RESEARCH, TEAC	CHING A	ND EXC	ELLENCE LEAR	NING		
EXPERIENCE						
4.1 Improve on Research:						
-						
4.2 Improve on Teaching and Learning:						
1. Two training section held on LHIMS						
33 Staff (doctors, nurses and accountants) were train	ned in SA	T (South	African Triage Sco	ore)		
3. 38 staff trained on cardiopulmonary resuscitation and	d certifica	tes were	given.			
OBJECTIVE 5: INTENSIFY SUPPORT TO THE LOW	ER LEV	EL OF	CARE AND SEF	RVICE		
DELIVERY POINTS						

2018 OUTCOME AND OUTPUT PERFORMANCE

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

1. Three (3) Sub BMC Office received and operational

2. Received two (2) mobile oxygen cylinders purchase from management.

- 3. ECG machine purchased by sub BMC and training done to enable use.
- 4. The following have been purchased by Sub BMC using SIL:
 - Humidifiers for flow meters -5
 - Suction machine -1
 - Nebulizing machine -1
 - Rechargeable pulse oximeters 2
 - Fridge and microwave for staff 2
 - Ergonomic chair for records and accounts 4
 - New patient chairs 20
 - New stretcher mattresses
 - Furnishing of sub BMC offices

8.3 TOP 10 CASES SEEN AT A&E IN 2018

Out of the top 10 cases seen at the A&E, 366 of them were malaria related with the least among the top 10 being Hernia related emergencies. Trauma from accidents continue to be a concern and accounts for the second leading emergencies mostly seen at the department over the years. Figure 8.3.1 provides a graphical illustration of the top 10 A&E cases for 2018.



Figure 8.3. 1: Top 10 Cases Seen at A&E In 2018

8.3.1 TOP 10 CAUSES OF DEATH AT A&E IN 2018

Respiratory Distress continuously accounts for the leading cause of death at the accident and emergency department and forms 24.8% of the total deaths recorded whilst trauma related deaths forms 4.4% of total deaths that occurred in 2018. Also, renal failure and advance cancers forms 12.9% and 8.5% out of the A&E total deaths respectively. This is illustrated in figure 8.3.1.1 and table 8.3.1.1 below.



Figure 8.3.1. 1: Top 10 Causes of Death at A&E in 2018

Table 8.3.1. 1: Two-year Comparative Analysis of Top 10 Cause of Mortality at A&E

	2017		2018		
1	Respiratory Distress	29%	Respiratory Infection	24.8%	
2	Sepsis	16%	Sepsis	16.0%	
3	Heart Failure	7%	Renal Disease	12.9%	
4	CVA	6%	CVA	12.2%	
5	Shock	5%	Advanced Cancers	8.5%	
6	Renal Disease	5%	Heart Failure	8.2%	
7	Liver Disease	4%	Possible Tb	7.8%	
8	Advanced Cancer	4%	Liver Disease	7.2%	
9	CNS Infections	4%	Anemia	6.0%	
10	Surgical Abdomen	2%	Trauma/Ludwig's	4.4%	

8.4 A&E STATISTICAL PERFORMANCE

Over the past three years, the facility continues to record significant increase in the number of people who access emergency services despite the infrastructural constraint (e.g. inadequate clinical space at A&E department). Clients went up by 32.5% in 2018

(from 12,041 in 2017 to 15,949 in 2018). The increase is due to the unique location. Figure 8.4.1 provides graphical presentation on the trend below.



Figure 8.4. 1 Three (3) years trend of cases seen at A&E (2016 – 2018)

In 2018, emergency cases resulting in admission dropped by 7.3% whereas the total cases seen at the department increased by 32.5%. Emergency cases referred into the department went up by 42% over the previous year. Mortality rate at the facility's emergency department saw an improvement from 3.3% in 2017 to 2.3% in 2018. Total cases normally brought in already death on arrival also significantly dropped by 46% in 2018. Table 8.4.1 below provides detailed trend analysis of the A&E performance and figure 8.4.2 below equally provides a graphical trend of the monthly statistical performance of the department.

Table 8.4. 1:	: Two Years'	trend of A&E	Statistical F	Performance	(2017-2018)
---------------	--------------	--------------	---------------	-------------	-------------

PARAMETER	2017	2018	REMARKS
Total Cases Seen	12,041	15,949	32.5% increase
"Admissions"	4,715	4,370	7.3% decrease
Trans In	19	4	79% decr.
Trans Out	3,168	2,993	6% decr.
Deaths	398	364	9% decr.
Mortality Rate	3.3%	2.3%	Improved
Bid	189	102	46% decr.
Average Length of Stay	2.8	4.2	Increased
Procedures	259	85	67.2% decr.
Referrals-in	999	1,419	42% incr.



Figure 8.4. 2 trend of the number of cases seen at A & E in 2018

The A&E since 2015 introduced the SATS colour coding system of triaging emergency cases at the department. SATS guides the urgent management of the cases based on acuity. The colour code assigned to the patient determines the urgency of the condition. That's from red (immediate), orange, yellow, green (means patients could wait for about two or could be seen at the OPD). In 2018, 5% of the cases triaged were under the red zone whilst 59% were within the green zone. The pie chart in figure 8.4.3 below provides a pictorial presentation of the category of cases seen based on the colour codes. Whilst figure 8.4.4 provides a graphical analysis of the top 10 referral facilities from which the increasing emergency cases are received into the department. From the figure, it is evident that emergency management capacity is required at the peripheral facility to aid in the reduction of BiDs (Brought in Dead).









Out of the 298 deaths recorded at the emergency department, females formed the majority (157 deaths). Also, the highest number of deaths (114 deaths) in 2018 occurred among the age range of 45years and 65years old and the least (18 deaths) was recorded among the under five children in the age range of 5 and 17 years. Five (5) of the cases who died were triaged and placed in the Green colour code zone which is indicative of the fact that, a patient's condition could deteriorate at any time in emergencies, from green to red zone. As such, the entire emergency team need to always be critically observant during management of cases. From the analysis in figure 8.4.5 below, the A&E department recorded most of their deaths (106 deaths) between 6hrs to 24hrs from the time of the patient's arrival whilst 62 of the deaths occurred in all emergencies. There is the need for targeted strategies for capacity building at the department to improve the chances of survival of people during emergencies at the facility.



Figure 8.4. 5: Detailed Analysis of Deaths at the A&E in 2018

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: Performance of Diagnostics Sub-BMC for 2018 Against CCTHStrategic Objectives

	2018 OUTCOME AND OUTPUT PERFORMANCE					
CCTH	Objective 1: INCREASE THE SCOPE AND IMPRO	VE THE C	QUALITY	OF SERVICE	S	
	•	Actual 2018 Target			Remark	
	Access and Quality Outcome	2017	2018			
i.	Utilisation of laboratory services	-	361%			
ii.	Total lab. Investigation increased by 3.3%	266,635	275,329			
iii.	Utilisation of radiological services	-	342%			
iv.	Radiology investigation increased by 19.7%	17342	20766			
1.	The laboratory participated in EQA for TB, Malaria an	nd HIV.				
2.	The laboratory department did presentations in O&G	and Phar	macy dep	artments		
3.	The Pathology unit was able to secure burial clearan	ce to buri	ry all uncl	aimed/unknow	n bodies	
	deposited in the morgue by the Police and other depa	artments.	-			
CCTH	I OBJECTIVE 2: REDUCE COMMUNICABLE AND N	ON-COM	MUNICA	BLE DISEASI	ES	
	-					
	I OBJECTIVE 3: IMPROVE GOVERNANCE, RES AGEMENT SYSTEMS	OURCE	(HUMAN	& FINANCIA	AL) AND	
3.1 In	nprove on Governance and Management System					
	-					
3.2 In	nprove on Human Resource and Management Syst	em				
	-					
3.3 In	nprove on Finance Resource and Management Sys	tem				
	-					
OBJE	ECTIVE 4: IMPROVE HEALTH RESEARCH, TEAC	HING A	ND EXCI	ELLENCE LE	ARNING	
EXPE	RIENCE					
4.1 In	nprove on Research:					
1.	One (1) Clinical research for pathology unit was cond	lucted and	d publishe	ed.		
2.	The department assisted/ supported KCCR, NOGUC	HI and st	udents in	conducting re	search.	
4.	21mprove on Teaching and Learning:					
1.	Laboratory staff benefitted from training programmes & Blood Safety).	(QMS, TE	3, Malaria	, HIV, Cholera	, LIS, LM	

2018 OUTCOME AND OUTPUT PERFORMANCE

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

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

9.3 TREND - DIAGNOSTIC INVESTIGATIONS (2014 to 2018)

Capacity built over the years have translated in the performance of the diagnostics department. In 2018, there was a significant increase in some of the laboratory investigations. Generally, Laboratory investigations increased from 118,392 in 2014 to 275,329 in 2018 with a 3.3% increase over 2017 (from 266,635 in 2017 to 275,329 in 2018). Radiology investigations increased by 19.7% over the previous year (from 17,342 in 2017 to 20,766 in 2018).

9.4 LABORATORY SERVICES

The department recorded 33.7% increase in Microbiology investigations (from 2615 tests in 2017 to 3496 in 2018). Due to the rising incidences of kidney related diseases and increase in awareness, Kidney Function Test (KFT) turn to be the highest laboratory investigations done at the facility. In 2018, KFT done went up by 0.6% (from 106,146 in 2017 to 106,809 in 2018). However, serology investigations dropped by 19.4% (from 51103 in 2017 to 41212 in 2018). Liver function test and Haematology Investigations form the second and third highest laboratory Investigations done at the facility. There was 2.5% increase in LFT from 95911 in 2017 and 93535 in 2018 whilst Haematology investigations reduced by 10.2% (from 89938 in 2017 to 80801 in 2018). Further,

Total laboratory investigation increased by 2.3% (from 266,635 in 2017 to 275,329 in 2018) compared to the 6.3% decline in clients who accessed the laboratory services at the facility. This is indicative of the fact that; the facility is in competition with private laboratory facilities for clients. As such, targeted strategies need to be put in place to retain and improve on client base at the facility. Out of the total of 64,030 clients attended to, 55.5% were referred from the OPD whilst 44.5% were on admission. Detailed comparative analysis and type of laboratory investigations done is provided from figure 9.4.1 to figure 9.4.9 below.



Figure 9.4. 1: Comparative Analysis of Total Laboratory Investigations and Laboratory Clients in 2018

Figure 9.4. 2: Client Distribution



Figure 9.4. 3 Biochemistry - Liver Function Test (LFT), Kidney Function Test (KFT) & Lipid Profile (Lipogram)







Figure 9.4. 5: Microbiology - Parasitology





Figure 9.4. 6: Microbiology - Bacteriology

Figure 9.4. 7: Mycobacteriology







Figure 9.4. 9: HAEMATOLOGY



The facility over the years identified and liaises with other public laboratory institutions to conduct investigations on suspected cases such as, H1N1, Rubella, Ebola, Buruli Ulcer etc. In 2018, the number of suspected H1N1 cases dropped significantly by 65% (from 256 cases in 2017 to 89 cases in 2018). Also, suspected Rubella cases reduced by 42% (from 7 cases in 2017 to 4 cases in 2018). There was no record of Burruli Ulcer case

(suspected or confirmed) in 2018 as compared to the 3 cases suspected and 1 confirmed case in 2017. This is presented in figure 9.4.10 below.



Figure 9.4. 10: Lab. Samples Referred to Other Lab Facilities

9.5 BLOOD TRANSFUSION & BLOOD DONATION

Quality blood availability is essential towards improving the survival chances of patients especially in emergencies. Efforts over the years have been made by the facility and the laboratory department to ensure continuous availability of blood and blood products throughout. Sources of blood stored at the facility includes those donated by volunteers (walk-in), pre-deposition from clients as part of their admission/surgery procedure and from blood donation outreach programme (mobile sessions). In 2018, the blood donated from mobile sections improved by 15.6% (from 1899 in 2017 to 2196 in 2018). There was 9.4% reduction in the unsafe blood's screened and were discarded. Blood could be discarded when; the blood has clotted, or when client was under bled, or the blood expired, or there was transfusion reaction from the recipient/patient, or Haemolysed, Polycythaemia or when there is the presence of visible protein & lipids particles (cloudy plasma). In 2018, patients transfused with whole blood increased significantly by 25.6% whilst the FFP transfused declined by 19.7% over the previous year. This is illustrated in figure 9.5.1 below.



Figure 9.5. 1: Blood Transfusion, Blood Donation & Referred Samples

9.6. RADIOLOGICAL SERVICES

Radiology services have steadily improved over the past three years. The total number of radiological investigations went up by 19.7% in 2018 (from 17,342 in 2017 to 20,766 in 2018). Also, Clients who accessed radiology services at the facility went up by 20.3% with a 27.1% increase in the number of radiology investigations conducted compared to 2017. This is illustrated in figure 9.6.1 below.





The department recorded its highest x-ray service utilisation in 2016 and later saw a significant drop in 2017. However, in 2018, there was a 35.1% rise in the utilisation again compared to 2017. Over the past three years CT Scan service utilization saw a steady increase. In 2018, the department recorded a significant increase by 86.3% in CT Scan compared to 2017. In the same light, there was a continuous decline in Ultrasound scan utilization at the facility with 8.7% reduction recorded in 2018. Also, there was 13.9% reduction in Echocardiogram service utilisation. Evidently, the continuous decline needs

to be critically looked at by all stakeholders to ascertain the contributing factors. Figure 9.6.2 below provides a comparative analysis on the radiology utilisation at the facility.





9.7 PATHOLOGY SERVICES

Generally, all the pathological procedures decline in 2018. Autopsies performed in 2018 decreased by 1.2% whilst Embalmment dropped by 8.1% over the previous year. Dead bodies brought directly from other places to the facility's mortuary went up significant by 63.9% as compared to 2017. The facility over a period have been making efforts to capture all cancer related deaths. From 2016 to 2018 cancer related death keep fluctuating with the highest of 29 deaths recorded in 2018. Hopefully, such data would be fed into the cancer registry plan of the facility to inform policy decisions locally, nationally and internationally. Figure 9.7.1 and figure 9.7.2 provides comparative trend analysis below.



Figure 9.7. 1: Total Cancer Related Deaths



9.7.1 FINANCIAL RETURNS AT PATHOLOGY DEPT. FROM 2016 TO 2018

The financial performance of the pathology department over the past three years have been declining. In 2018, despite the increase in the institutional mortality and BIDs, there was a significant revenue drop by 72.0% with a 0.5% reduction in cases as well at the pathology department. The contributing factors need to be determined by all stakeholders. Figure 9.7.1.1 below provides the detailed analysis.

Figure 9.7.1. 1: Total Pathological Cases and Revenue from 2016 to 2018



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: Performance of Maternal Health Sub-BMC Against CCTH Strategic

 Objectives

2018 OUTCOME AND OUTPUT PERFORMANCE							
CCTH Objective 1: INCREASE THE SCOPE AND IMPROVE THE QUALITY OF SERVICES							
		Actual		2018 Target	Rem		
	Access and Impact	2017	2018		ark		
i.	Low birth rate increased by 0.5%	13%	13.5%				
ii.	Stillbirth rate (/1000LB) increased	34	36				
iii.	Fresh Still birth decreased by 45.3%	53	29				
iv.	Macerated Still Birth increased by 64.8%	54	89				
V.	Institutional Maternal mortality ratio improved (/100,000LB)	1335	860				
vi.	Institutional maternal deaths decreased by 34.1%	41	27				
vii.	Couple year protection has improved	1507	1521.6				
	Access and Quality Outcome						
viii.	Percentage of maternal admissions due to external referrals decreased by 7.6%	49%	41.4%				
ix.	Nurse and Midwife admission ratio improved slightly	1:21	1:20				
х.	Total deliveries increased by 3.4%	3055	3160				
xi.	Delivery to midwife ratio increased	1:29	1:30				
xii.	Caesarean section rate increased by 7%	40%	47%				
1.	Conducted monthly maternal mortality conference an	d Audited	all mater	nal deaths			
2.	2. Conducted Joint perinatal mortality audits with Child Health						
3.	3. Kangaroo mother care (skin to skin) practice immediately after delivery was intensified						
4.	4. Continue to utilise WHO safe childbirth checklist and discharge plan						
5.	Continuous customer care talks at morning meetings						
CCTH	OBJECTIVE 2: REDUCE COMMUNICABLE AND N	ON-COM	MUNICA	BLE DISEASES			
1	Two (2) infection prevention and control workshops of	organized					

2018 OUTCOME AND OUTPUT PERFORMANCE

2. Conducted regular sterilization of babies' cot sheet, and green towels for new born babies
CCTH OBJECTIVE 3: IMPROVE GOVERNANCE, RESOURCE (HUMAN & FINANCIAL) AND
MANAGEMENT SYSTEMS
3.1 Improve on Governance and Management System
1. The Sub-BMC held four (4) Management meetings
2. Organized one (1) Units level staff durbar
3.2 Improve on Human Resource and Management System
1. About 98% of staff were appraised
3.3 Improve on Finance Resource and Management System
OBJECTIVE 4: IMPROVE HEALTH RESEARCH, TEACHING AND EXCELLENCE LEARNING EXPERIENCE
4.1 Improve on Research:
1. Presented a case report at the CCTH Maiden scientific research conference
4.2 Improve on Teaching and Learning:
1. Carried out daily clinical teaching/tutorial sessions for the Sub-BMC
2. CCTH – Kybele collaborative training in maternal and safe childbirth and quality improvement
3. Trained staff on Basic Ultrasound, Evacuation of Uterus, Shoulder dystocia management, Triaging etc.
4. Commenced residency training programme at the department. (five (5) residents currently enrolled)
5. Training of residents on external rotation from other institutions (about 10 residents received and trained)
OBJECTIVE 5: INTENSIFY SUPPORT TO THE LOWER LEVEL OF CARE AND SERVICE DELIVERY POINTS
1. Continuous support to lower facilities on phone and visits to site.
OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF QUALITY SERVICE
1. Received one (1) anaesthesia machine and monitor
2. Received 3 suction machines
3. Received sonicaids, pulse oximeters, nebulizers and other equipment
4. Commissioning and operationalization of Obstetrics & Gynaecology Emergency Centre
5. Used service Improvement Levy (SIL) to:
 Fix electrical system at O & G ward
 Fix four (4) water heaters at O & G Emergency, Del. Suite, and D/S Theatre
Construct two (2) bunk beds with mattresses and tables for consulting rooms at O & G
Emergency Centre
 Construct cross bars for partitioning of five (5) consulting rooms for ANC and Gynae. OPD consulting rooms
 Fixed examination couches for two (2) consulting rooms at ANC

• Paint the Delivery Suite

10.3 OPD ATTENDANCE FOR MATERNAL HEALTH

The total attendants at the maternal health clinic dropped by 5.6% in 2018 (from 17,547 in 2017 to 16,564 in 2018). Also, both ANC and Gynae attendants also saw a decline by 11.3% and 0.3% respectively compared to 2017. However, the department recorded a rise in PNC attendants by 5.5% in 2018. The trend is illustrated in figure 10.3.1 below.



Figure 10.3. 1 OPD Attendant for Maternal Health

10.4 MATERNAL IN-PATIENT STATISTICAL PERFORMANCE

The department in 2018 recorded a decline in the percentage of maternal admissions due to external referrals by 7.6% despite the 9.1% increase in total admission. Further the percentage of bed occupancy dropped by 1.7% and the average length of stay reduced from 4.0 in 2017 to 3.8 in 2018. Details have been provided in table 10.4.1 below.

DETAILS	2016	2017	2018	Remarks
Admission	1713	1799	1963	9.1% increase
Discharges	2475	2653	2744	3.4 % incr.
Trans-In	1364	1484	1473	0.7% decr.
Trans-Out	598	635	682	7.4.% incr.
Referrals	1023	845	-	-
Average Daily Occupancy	33	29	28.6	Decr.
% Bed Occupancy	73.3	65.2	63.5	1.7% decr.
Average Length of Stay	4.8 days	4.0 days	3.8 days	Improved

Table 10.4. 1: Maternal In-Patient Statistics

10.5 TOP 10 OBSTETRIC CONDITIONS

Over the past three years, Hypertension disorders in pregnancy remains the leading cause of obstetric admission at the facility. However, it significantly increased from 5.3% of all cases seen 2017 to 22.5% in 2018. Gestational Diabetes that was recorded in 2016 as the 10th ranked position among the top 10 causes of admission is now the 3rd leading cause of obstetric admission in 2018 and a great concern to all stakeholders. Evidently, there is a need for continuous awareness creation and education to all women about

lifestyle modification. Table 10.5.1 below provides a comparative trend on the top 10 obstetric conditions admitted from 2016 to 2018.

Table 10.5. 1:	Top 10) Obstetric	Conditions
----------------	--------	-------------	------------

2016	2017	2018
 Hypertensive Disorders of Pregnancy (9.1%) 	 Hypertensive Disorders of Pregnancy (5.3%) 	1. Hypertensive Disorders of Pregnancy (22.5%)
2. Postdatism (4.8%)	2. Postdatism (3.4%)	2. PROM / PPROM (4.6%)
3. Anemia in Cyesis (3.8%)	3. Latent Phase of Labor (2.1%)	 Gestational Dm / Dm in Pregnancy (4.6%)
4. Malaria in Cyesis (2.3%)	4. UTI IN CYESIS (1.6%)	4. Prolonged Pregnancy / Postterm (3.6%)
5. UTI in CYESIS (2.2%)	5. Severe Anemia / Anemia (1.5%)	5. UTI IN CYESIS (2.7%)
6. PROM (1.9%)	6. Malaria in Cyesis (1.1%)	6. PPH (2.6%)
7. APH (1.6%)	7. PROM (1.1%)	7. Anemia in Pregnancy (2.2%)
8. IUFD (1.6%)	8. PPH (0.8%)	8. Pre – Term Labor (2.2%)
9. PPH (1.0%)	9. IUFD (0.6%)	9. IUFD (1.9%)
10.Gestational Diabetes (0.6%)	10. APH (0.5%)	10. Hyperemesis Gravidarum (1.6%)

10.6 MATERNAL HEALTH - KEY PERFORMANCE INDICATORS

Deliveries at the facility over the past years continue to go up with 3.4% increase recorded in 2018 over the previous year. In 2018, total deliveries increased by 3.4% however, there was 11.3% decline in antenatal attendants at the facility. There are three main forms of delivery. Namely, Spontaneous Vaginal Delivery (SVD), the Caesarean Section (C/S) and Assisted Vaginal Delivery (AVD). Over the past years, whilst SVD and AVD fluctuates, C/S procedure continue to rise. In 2018, total C/S procedures done went up by 20% over the previous year. 46.8% of all the deliveries carried out in 2018 were done by C/S whilst SVD and AVD forms 52.7% and 0.4% of all deliveries respectively. There are schools of thought that, regardless of the form of delivery, the outcome must be positive (mother and baby must survive/be alive) whilst others think that, recording a continuous rise in C/S shows under performance on the part of the medical team. Ultimately, all everyone locally, nationally and international seeks for is a health system that provides quality maternal health care and continuously works towards improving the survival chances of all regardless of age, geographical location, economic status or

educational background of the client etc. 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 five years.



Figure 10.6. 1: Trend in Number of Deliveries (2014 – 2018)

Figure 10.6. 2: Forms of Delivery (2014 – 2018)



Yearly, the facility tries to implement strategies with the hope of them translating into positive outcomes of all indicators. Some of these measures gradually lead to the continuous decline in fresh still births since 2016. Unfortunately, the facility is still battling with the continuous rise in macerated still births over the past years. In 2018, whilst the facility celebrates the fact that the fresh still births reduced significant by 45.3% as compared by 2017, in the same light all stakeholders have great concern over the fact that macerated still births, significantly increased by 64.9% in the same year. Evidently, a holistic approach with the contextualisation of best practices from other countries need to be adopted and implemented from the ANC stages and throughout the pregnancy before term. Such as, the strengthening of the focused antennal care concept etc. to

ascertain the contributing factors for targeted intervention to reduce some of these preventable deaths. The analysis is illustrated in figure 10.6.3 and table 10.6.1 below.



Figure 10.6. 3: % Trend in Fresh Still Birth (2014 – 2018)

INDICATOR	2014	2015	2016	2017	2018	Remarks
Deliveries	2,618	2,854	2,904	3,055	3,160	3.4% incr.
Number of babies	2,730	2,945	3,037	3,179	3,256	2.4% incr.
Live births	2,590	2,789	2,870	3,072	3,138	2.2% incr.
Still births	140	156	161	107	118	10.3% incr.
	FSB-65	FSB-96	FSB - 76	FSB - 53	FSB – 29	45.3% decr.
	MSB- 75	MSB-60	MSB - 85	MSB - 54	MSB - 89	64.9% incr.
% Caesarian Section	35%	34%	38%	40%	47	20% incr.
Still birth rate per 1000 LB	54	56	56	34	36	Incr.
Number of maternal deaths	20	31	41	41	27	34.1% decr.
Maternal mortality ratio per 100,000	772	1,111	1,428	1,335	860/100,00 0	Improved
	500	600	740	740		0.40/
ANC REGISTRANTS	568	630	716	748	794	6.1% Incr.
ANC ATTENDANCE	7,332	7,982	8,567	10,141	8,991	11.3% decr.

Table 10.6. 1 Maternal Health Key Performance Indicators

10.7 TOP 10 GYNAECOLOGY CONDITIONS

Fibroid remains the leading Gynaecological conditions most women struggle with. In 2018, 863 women reported to the facility with Uterine fibroid and closely followed by pelvic inflammatory diseases. Interestingly, the two conditions often lead to infertility

problems. As such, it is not surprising that infertility is the third leading Gynae conditions attended to in 2018. Uterovaginal prolapse is unfortunately increasing among women and of great concern. It mostly occurs because as a result of vaginal delivery especially during difficult labour (e.g. delivering of a large baby) or having lower estrogen level after menopause. This may be one of the reasons why some women would rather prefer C/S to SVD or AVD to minimize the future risk of developing such prolapse. Table 10.7.1 provides the top 10 Gynaecological condition attended to at the facility in 2018.

	CONDITIONS	NUMBER OF CASES
1.	Uterine Fibroids	863
2.	Pelvic Inflammatory Disease	503
3.	Infertility	281
4.	Ovarian cyst	239
5.	Ectopic Pregnancy	207
6.	Abnormal uterine and vaginal bleeding	169
7.	Threatened abortion	146
8.	Incomplete abortion	128
9.	Missed abortion	92
10.	Uterovaginal prolapse	77

Table 10.7. 1 Top 10 Gynecology Conditions

10.8 OBS & GYNAE SURGERIES PERFORMED

Generally, major obstetric surgeries increased by 7.7% in 2018 over the previous year. Most of the surgeries were due to C/S. It is always a difficult decision for women to consent to Sterilization or Hysterectomy procedure even when it is medically indicative. This is mostly due to cultural or religious believes or the fear of the unknown etc. As such, over the years, acceptability of such procedures has not been encouraging. However, in 2018, the facility conducted 23 sterilization procedures. Hysterectomy in 2018 fortunately dropped by 57.1% (from 14 cases in 2017 to 6 cases in 2018) whilst myomectomy mostly due to fibroid went up by 3% and of great concern, consideration the continuous rise in fibroid cases among women in general. A study needs to be done to probe further into why the continuous prevalence of fibroid among women especially those from Africa. Table 10.8.1 below shows the details.

TYPE OF	2016	2017	2018	Remarks
OPERATIONS				
MAJ	OR OBSTETI	RIC RELATED S	URGERIES	
Caesarean Section	1014	1194	1261	5.6% incr.
Hysterectomy	5	14	6	57.1% decr.
Sterilization	1	0	23	increased
Laparotomy For;				
Ectopic	44	76	65	14.5% decr.
 Ovarian Cyst 	2	1	18	
Exploratory	10	19	24	26.3% incr.
Others	12	0	7	increased

Table 10.8. 1: Major Obs & Gynae Surgeries Performed in 2018

Total Major Obstetric Operations	1,088	1,304	1,404	7.7% incr.
MAJ				
Myomectomy	119	67	69	3% incr.
ТАН	35	51	50	1.96% decr.
Vaginal Hysterectomy	14	11	4	63.6% decr.
Cervical cerclage	4	3	2	33.3% decr.

10.9 MATERNAL MORTALITY

The facility in 2018 recorded a significant improvement in the maternal mortality due to the multiple strategies implemented and continuous capacity building at the department and peripheral facilities to reduce incidences of late referrals. The deaths reduced by 34.1% whilst the maternal mortality ratio improved from 1335/100,000 in 2017 to 860/100,000LB in 2018. Non-the-less, more approaches need to be adopted to sustain the gains and to reduce the deaths further as no woman should from child birth. Figure 10.9.1 and 10.9.2 below demonstrated the trend of mortality death and ratio for the past five years.



Figure 10.9. 1: Trend in Maternal Mortality Ratio / 100,000 Live Births (2014-2018)



Figure 10.9. 2: Trend of Maternal Mortality (2014 to 2018)

10.10 TOP CAUSES OF MATERNAL MORTALITY

Three conditions remain a teething challenge for the facility as far as maternal mortality is concern. Every year, maternal mortality at the facility occurs either as a result of excessive blood loss than could be readily replaced or due to the women suffering from hypertensive complications in pregnancy or sepsis. All these conditions are preventable or manageable with the right and timely support system, capacity and timely and effective referral system from the peripheral facilities and in-house. It is evident that, a lot needs to be done at the facility level, district level, regional and national levels to improve the survival chances of these mothers through pregnancy and delivery. Table 10.10.1 below provides a three-year trend analysis of the causes of maternal deaths and the percentage/number of cases recorded per year.

CAUSE MATERNAL MORTALITY	2016 %	2017		2018
Haemorrhage	38%	14 cases	34.1%	9 cases
Hypertensive Disorders of Pregnancy	19%	12 cases	29.3%	8 cases
Sepsis	26%	9 cases	22.0%	8 cases
Others	17%	6 cases	14.6%	2 cases

Table 10.10. 1: Top Three Causes of Maternal Mortality

Out of total of 27 maternal deaths recorded at the facility in 2018, 24 of the deaths are cases referred from other peripheral facilities within the central regions and beyond with varied distance from CCTH. 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 import 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. Table 10.10.2 below provides a detailed information about the total maternal deaths in 2018 and the referral facilities and number of cases.

REFERRAL FACILITY	NO	REFERRAL FACILITY	NO	
Saltpond Municipal Hospital	3	Nagel Memorial Adventist		
Mercy Women's Clinic - Mankessim	3	Oda Government Hospital, Akim -Oda	1	
Effia Nkwanta Regional Hospital, Takoradi	2	Sanford World Clinic, Cape Coast	1	
Our Lady of Grace Hospital, Asikuma	2	Swedru Government Hospital	1	
Adisadel Urban Health Centre, Cape Coast	1 UCC Hospital			
Abura Dunkwa District Hospital	1	UQ Hospital	1	
Apinto Government Hospital, Takoradi		Winneba Trauma and Specialist Centre	1	
Baiden Ghartey Memorial Hospital, Cape Coast	1	TOTAL (REFERRALS)	24	
Essikado Government Hospital, Takoradi	1	ССТН	3	
Fynba Clinic 1 GRAND TOTAL			27	
Moree Health Centre	1			

Table 10.10. 2: Referral Facilities of The Maternal Deaths 2018

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 2018 PERFORMANCE AGAINST CCTH STRATEGIC OBJECTIVES

Table 11.2. 1: Child Health Sub-BMC's 2018 Performance Against CCTH StrategicObjectives

	2018 OUTCOME AND OUTPUT PERFORMANCE						
CCTH	CCTH Objective 1: INCREASE THE SCOPE AND IMPROVE THE QUALITY OF SERVICES						
		Ac	tual	2018 Target	Remark		
	Access and Impact	2017	2018				
i.	Low birth rate increased by 0.5%	13%	13.5%				
ii.	Institutional infant mortality rate (/1000LB) increased	65	69				
iii.	Institutional neonatal mortality rate (/1000) increased	59	63				
iv.	Total neonatal deaths increased by 9.4%	180	197				
v.	Total infant death increased by 7.5%	201	216				
vi.	Under-five mortality rate (/1000LB) increased	71	77				
vii.	Total under-five death increased by 10.5%	219	242				
	Access and Quality Outcome	2017	2018				
viii.	Percentage of neonatal admissions due to external referrals decreased by 1.9%	28%	26.1%				
1.	Audited 95% of all neonatal deaths						
CCTH	OBJECTIVE 2: REDUCE COMMUNICABLE AND N	ON-COM	MUNICA	BLE DISEASE	S		
1.	Carried out daily health education to mothers at t paediatric ward	the spec	ial baby	care unit (SC	BU) and		
2.	Produced customised educational videos for regular were locally produced by staff on hand hygiene and r	health eanutrition)	ducation p	ourposes (e.g.	2 videos		
CCTH	OBJECTIVE 3: IMPROVE GOVERNANCE, RES	OURCE	(HUMAN	& FINANCIA	L) AND		
MAN	AGEMENT SYSTEMS						
3.1 In	nprove on Governance and Management System						
1.	3 sub-BMC meetings were held						
2.	1 departmental meeting was organized						
3.	70 clinical teaching meetings held						
4.	3 perinatal meetings were held						
2018 OUTCOME AND OUTPUT PERFORMANCE

- 5. 3 radio talks were held and 1 TV programme attended
- 3.2 Improve on Human Resource and Management System
- 1. 90% of staff at the sub-BMC have been appraised

3.3 Improve on Finance Resource and Management System

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

4.1 Improve on Research:

- 1. Child health research commenced the following collaborative research;
 - Collaboration with Haematology: prevalence rate of sickle cell disease in children attending the child welfare clinic at CCTH
 - Collaboration with HIV clinic: psychosocial needs of adolescents living with HIV
 - Nurse-led research: prevalence and risk factors associated with neonatal jaundice in CCTH.
- 2. Presented a clinical case report at the CCTH Scientific research conference on "Ovarian Burkitts"

4.2 Improve on Teaching and Learning:

- 1. Training
 - 1 training session Paediatrics Emergency Triage and Treatment (ETAT) course
 - 1 training session Essential Newborn Care/Helping Babies Breathe course
 - 2 medical officers sponsored for postgraduate studies
 - 2 Paediatrics nurses sponsored Paediatrics and critical care
 - Accreditation was applied for residency GCPS
 - 1 seminar held for staff
- 2. Teaching and learning experience
 - 100% primaries pass rate 2 medical officers
 - In-service training organized on clinical audit for 40 house officers

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

- 1. SCBU telephone number widely circulated for neonatal referrals improved communication.
- 2. Child Health staff are facilitators in various GHS programmes (IMNCI, ENC, CHO internship, CMAM) to improved supervision, mentorship and feedback at lower level.
- 3. Child Health staff are part of the regional core team for Quality Improvement in newborn care improved service delivery and support supervision at the lower levels of care.

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

- 1. 1 phototherapy unit, 1 incubator, 1 BP apparatus, 3 pulse oximeters received as donations
- 2. Management provided a UPS for oxygen concentrator

11.3 CHILD HEALTH SERVICES

The facility continues to provide general and specialist child health services. Some of the Paediatric specialist services being provided includes; Paedics-Neuro, Paedics-Asthma, Paedics-Renal, Paedics-Cardiology clinic etc. Attendants over the years fluctuated at the OPD level. In 2018, Paediatric cases seen at the OPD dropped by 8.4% compared to the previous year. Figure of 8,180. 1,742 children were admitted into the Paediatric ward with 890 cases admitted to the Special Care Baby Unit (SCBU) in the absence of a NICU

(Neonatal Intensive Care Unit) and the neonatal admissions due to external referrals equally decreased by 1.9% (from 28% in 2017 to 26.1% in 2018).





11.4 TOP 10 CAUSES OF CHILD HEALTH ADMISSION

Pre-maturity remains the second (15.8% in 2018 and 11.1% in 2017) leading cause of child admission between 2017 and 2018. Neonatal Jaundice was recorded as the leading cause of admission as compared to Bronchopneumonia in 2017. Neonatal Asphyxia Birth equally remains the fifth leading cause of admission between 2017 and 2018. Tonsillitis among children is also gradually rising and in 2018, 56 cases were admitted, representing the 3.0% and the 10th ranked position among the top 10 child admission for 2018. Detailed trend analysis is provided in figure 11.4.1, figure 11.4.2 and table 11.4.1 below.



Figure 11.4. 1: Top 10 Causes of Child Admission



Figure 11.4. 2: Admissions Trend in Child Health - 2016 to 2018

 Table 11.4. 1 Summary of Child Health Performance from 2017 to 2018

WARD	A	DM	DIS	СН	AV. D	0000	% OC	BED CUP	AV. ST	L OF AY	DEATH		DEATH RATE	
	2017	201 8	2017	201 8	201 7	201 8	201 7	2018	201 7	201 8	201 7	201 8	2017	2018
PAEDICS	1,82 5	1,74 2	1,839	1,76 5	28	27	59.1	55.9	5.4	5.3	80	88	4.1	4.6
SCBU	780	890	557	617	13	16	53.2	65.5	6.5	7.2	155	176	19.8	19.6

11.4.1 TOP TEN CAUSES OF < 5 MORTALITY

Pre-maturity over the years have been recorded at the facility as the leading cause of mortality and mostly the second highest among the top 10 causes of admission. The survival chances of babies with asphyxia at the facility also remains a challenge. Despite being the 5th among top 10 admissions, asphyxia accounts for the second leading cause of under-five mortality. Although the facility rarely admits meningitis cases, they account for the 7th ranked cause of mortality as illustrated in the figure below. Cases of malnutrition are equally a concern to all stakeholders and need targeted intervention to improve the survival chances of these children.



Figure 11.4.1. 1: Top Ten Causes of < 5 Mortality

11.5 NEONATAL DEATH'S AUDITED

The facility was able to Audit 95% of all the neonatal deaths in 2018. Unfortunately, the strategies could not translate into an improvement in the neonatal mortality. In 2018, the facility recorded 9.4% increase in the neonatal mortality (from 180 deaths in 2017 to 197 deaths in 2018 with the rate also increasing from 63/1000LB as compared to 59/1000LB in 2017. The under one (1) year mortality between 2015 to 2018 keeps fluctuating over the years with an increase of 69/1000LB in 2018 over 65/1000LB in 2017 as demonstrated in figure 3.7.3.2 below. 71 neonatal deaths were recorded among the weight between 2.5kg and 4kg as the highest with the second highest being weight range of 1kg and 1.5kg in 2018. Further, 35 of the deaths also were recorded between the weight range of 1.5kg and 2.5kg with 15 of the deaths being less than one (1) year. Figure 11.5.1 to figure 11.5.3 below provides a graphical illustration of all the neonatal deaths audited in 2018.

Figure 11.5. 1 Rate of Neonatal Mortality Audited, 2015-2018



Figure 11.5. 2: Rate of <1-Year Mortality Audited, 2015-2018



Figure 11.5. 3: Neonatal Mortality By Weight Audited



Further, the facility in 2018 recorded its highest neonatal deaths in the month of September with the least in the month of May. It is perceived by many that, the higher a pregnancy is carried to term the higher the chances of survival of the baby. Interestingly, CCTH aside recording high macerated still death, equally recorded in 2018 the highest

neonatal deaths of 93 occurring among babies with a gestational age range between 37 weeks and above and the least (33 deaths) occurring within 32 and 36 gestational weeks. A study into why? would be useful for future targeted intervention. This is illustrated in figure 11.5.4 below.



Figure 11.5. 4: Monthly Distribution Of Neonatal Mortality Audited

Figure 11.5. 5: Neonatal Mortality By Gestational Age Audited



Out of the 168 neonatal deaths audited, majority (87 deaths) of the deaths at the facility occurred in less than 24hours as the length of stay following arrival and admission into the facility. 59 of the neonatal deaths in 2018 were also recorded within one (1) day (24 hours) to 6 days with the least of 22 death occurring from 7 days and above as demonstrated in figure 11.5.6 below. As such, a holistic and strategies measures are required, if the facility and stakeholders are determined to improve the chances of survival of these babies at all levels. Out of the neonatal deaths recoded at the facility, 99 of them were cases referred from the peripheral facilities whilst 69 were cases managed within CCTH and shown in figure 11.5.7 below.

Figure 11.5. 6: Neonatal Mortality Audited By Length Of Hospital Stay



Figure 11.5. 7: Neonatal Mortality Audited By Place Of Delivery



11.6 UNDER 5 MORTALITY

In the past four years, the facility's under-five mortality rate kept fluctuating. The facility was unable to sustain the gains made in 2017 but rather recorded increase in the under-five mortality rate from 71/1000LB in 2017 to 77/1000LB in 2018. This calls for a critical audit into the deaths to ascertain the contributing factors. Figure 11.6.1 to 11.6.2 and table 11.6.1 below provides a detailed trend analysis.

Figure 11.6. 1: Rate Of Under 5 Year Mortality /1000 LB, 2015-2018





Figure 11.6. 2: Rate of Under 5 Years Mortality (/1000 LB) From 2015 – 2018

Table 11.6. 1: Comparative Trend Analysis – Child Health Indicators (2015-2018)

INDICATOR	2015	2016	2017	2018	
Number of	173	207	180	197	
Neonatal death-	NMR	NMR 72/1000	NMR 59/1000	NMR 63/1000	
Institutional	62/1000 LB)	LB)	LB)	LB)	
Number of infant	213	236	201	216	
deaths-	(IMR 76/1000	(IMR 82/1000	(IMR 65/1000	(IMR 69/1000	
Institutional	LB)	LB)	LB)	LB)	
Number of Infants	1,172	1,352	1,442	1,697	
admissions-					
Institutional					
Number of under	237	250	219	242	
five deaths-	U5MR	U5MR	U5MR	U5MR	
Institutional	85/1000 LB)	87/1000 LB)	71/1000 LB)	77/1000 LB)	

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 2018 Performance Against CCTH

 Strategic Objectives

2018 OUTCOME AND OUTPUT PERFORMANCE
CCTH Objective 1: INCREASE THE SCOPE AND IMPROVE THE QUALITY OF SERVICES
1. Created the High Dependency Unit for critically ill patients
2. Provided regular training to staff on critical care
CCTH OBJECTIVE 2: REDUCE COMMUNICABLE AND NON-COMMUNICABLE DISEASES
1. Organized regular training on infection prevention and control practices to staff
2. Enforcing waste management and segregation protocol on the wards
CCTH OBJECTIVE 3: IMPROVE GOVERNANCE, RESOURCE (HUMAN & FINANCIAL) AND MANAGEMENT SYSTEMS
3.1 Improve on Governance and Management System
1. 6 sub-BMC meetings were held
3.2 Improve on Human Resource and Management System
2. Graduation of two locally trained physician specialists
3.3 Improve on Finance Resource and Management System
-
OBJECTIVE 4: IMPROVE HEALTH RESEARCH, TEACHING AND EXCELLENCE LEARNING EXPERIENCE
4.1 Improve on Research:
-
4.2 Improve on Teaching and Learning:
 All doctors and 5 nurses trained in Basic Life Support
2. Nurses trained in High Dependency Unit Care
 The Sub BMC continued its role in supporting undergraduate Nursing, Medical, Pharmaceutical and other allied health training

4. Organized examination revision for residents

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

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

1. Cladding of verandahs to create additional ward space

12.3 INTERNAL MEDICINE'S 3-YEAR PERFORMANCE TREND

In 2018, the department recorded 6.6% reduction in admission and 10.5% reduction in mortality. Also, the department over the years continue to record increasing number of renal cases. Patients attending renal clinic increased by 4.6% in 2018 (from 849 in2017 to 888 in 2018) whilst clients placed on dialysis went up by 160% (from 75 patients in 2017 to 195 patients in 2018) with 18.1% increase in the number of dialysis sections (from 4457 sections in 2017 to 5265 sections in 2018). Figure 12.3.1 below provides a four-year trend analysis.





Death rate at the Intensive Care Unit went up from 49.6% in 2017 to 55.5% in 2018. Male Medical ward deaths remains at 15.6% in 2018 and 2017. Bed Occupancy at the executive ward increased from 57% to 64.4% in 2018 and the highest average length of stay of 7.8 was recorded at the male medical ward. Table 12.3.1 below provides a two-year comparative analysis.

WARD	Admission		Discharge Average Day Occupancy		% Bed A Occupancy L		Average Length of Stay		Death		Death Rate			
	2017	2018	2017	201 8	2017	2018	2017	2018	2017	201 8	201 7	201 8	2017	201 8
Male Medical	932	839	773	699	15	16	34.3	37.2	5.8	7	148	134	15.6 %	15.6 %
Female Medical	943	839	828	737	16	14	37.5	33.1	7.8	6.1	123	116	12.6 %	13.8 %
Intensive Care Unit	142	191	11	82	3	2	41.7	36.2	6.7	6.9	126	106	49.6 %	55.5 %
Executive Suite	105	114	101	111	2	2	57.0	64.4	6.1	5	2	3	1.9	2.6
TOTAL	2122	1983	1713	162 9							399	357		

Table 12.3. 1: Internal Medicine's Statistical Performance for 2018

12.5 COMMON CAUSES OF ADMISSION AT INTERNAL MEDICINE

In 2018, there was a sharp turn in the leading conditions commonly admitted to the medical wards. Urinary Tract Infection (UTI) was the highest condition admitted as compared to 2017. In 2018, non-communicable conditions such as hypertension and diabetes were leading. The department also recorded a drop in the HIV cases admitted to the ward by 10.7%. Hypertensive related admission dropped significantly by 70.9% whilst diabetes related admissions reduced by 61.0% in 2018. Malaria related admissions also went up by 23%. Figure 12.5.1 below provides a comparative trend analysis of the common causes of medical admissions.



Figure 12.5. 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 PERFORMANCE AGAINST CCTH STRATEGIC OBJECTIVES

 Table 13.2. 1: Surgical Sub-BMC's 2018 Performance Against CCTH Strategic

 Objectives

CCTH Objective 1: INCREASE THE SCOPE AND IMPROVE THE QUALITY OF SERVICES Actual 2017 2018 Rem Access and Impact 2017 2018 ark i. Theatre and Recovery Wards Deaths Rate reduced by 0.1% 0.4% 0.3% ark <i>Access and Quality Outcome</i> 2017 2018 ark iii. Total surgical operations decreased by 3.2% 3853 3728 ark iii. Surgeon to surgery ratio declined 1:148 1:139 ark 1. Continues utilisation of surgical safety checklist at the Theatre and Recovery. 2. Standard precautionary and preoperative protocols were developed and displayed at vantage point CCTH OBJECTIVE 2: REDUCE COMMUNICABLE AND NON-COMMUNICABLE DISEASES a. Enforcing waste management and segregation protocol on the wards b b. Infection Prevention and Control protocol displayed appropriately at all the wards and duly enforced c. 130 patients were screened for breast cancer at the female surgical ward d. General ward cleaning was strengthened to prevent infections CCTH OBJECTIVE 3: IMPROVE GOVERNANCE, RESOURCE (HUMAN & FINANCIAL) AND MANAGEMENT SYSTEMS 3.11mprove on Governance and Management System 1. COLLABORATIONS: university of San Diego California-Team management in trauma Stone Brook University –treating people with colors </th <th colspan="10">2018 OUTCOME AND OUTPUT PERFORMANCE</th>	2018 OUTCOME AND OUTPUT PERFORMANCE									
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	hearing assessment equipment (audiometer	and auto	acoustic	emissions machi	ne) to					

2018 OUTCOME AND OUTPUT PERFORMANCE
Dr. Aiking group conducted Gynaccological and General Surgical operations (14 cases)
• DI. Aikins group conducted Gynaecological and General Surgical operations (14 cases
2.2 Improve on Human Baseuros and Management System
3.2 Improve on Human Resource and Management System
1. Increase in stall strength especially urology specialist and surgical surgeons
2. I nree in – service training were organized for staff
3.3 Improve on Finance Resource and Management System
1. Used the Instituted Service Improvement Levy (SIL) to help carry out repairs and various projects in
the Sub-BMC
OBJECTIVE 4: IMPROVE HEALTH RESEARCH, TEACHING AND EXCELLENCE LEARNING
EXPERIENCE
4.1 Improve on Research:
4.2 Improve on Teaching and Learning:
 Three In – service training were organized for staff
2. Weekly refresher presentation on operating room techniques as well as other nursing and
medical related topics was organized for all theatres and recovery Staff
3. Two Ophthalmic Nurses were able to do their sixteen weeks internship at the unit
Two Optometrist also did their nine months internship at the unit
On-the-job training was given to 43 new nurses posted to the unit
6. Critical care and perioperative nurses from Korle-Bu did their 12 weeks internship as part of
their training
7. Organised two CPD hands-on training on hernia mesh repair and management of hemorrhoids
8. Held a two-day conference on trauma with the university of San Diego
OBJECTIVE 5: INTENSIFY SUPPORT TO THE LOWER LEVEL OF CARE AND SERVICE
DELIVERY POINTS
1. Eight (8) Outreach to communities /churches by DEENT
2. Six (6) Outreach to schools by DEENT
2 Two (2) Surgical Outreach to facilities by DEENT
OR IECTIVE 6. IMDDOVE INEDASTDUCTUDE AND EQUIDMENT BASE FOD THE DELIVEDY OF
OBJECTIVE 6. IMPROVE INFRASTRUCTORE AND EQUIPMENT BASE FOR THE DELIVERT OF
1 Fourteen (11) new ceiling fans were provided to replace old rusted ceiling fans at male, female
and surgical suite.
2. Sixteen (16) kidney dishes & 20 pieces of stitch scissors were provided at the theatre.
3. One Hundred and twenty (120) pieces of bed sheets provided for male and female surgical
wards
Caved ceiling at the male changing room and corridors of surgical suite repaired
5. Five suction machines were acquired for male, female and surgical suite.
6. Collapsed nurses' station table at female surgical ward was repaired.
7. 36 Mackintosh aprons were provided at the theatre
8. Five swivel chairs purchased for the Sub-BMC.
9. Pantry sinks at the male and female surgical wards repaired and tiled.
10. Provided new curtains for ENT, DENTAL AND MAXILOFACIAL Consulting rooms.
11. Bought 3 mobile phones and 1 intercom handle for the wards and surgical suite
12. Purchased sixty (60) 20kw energy saving bulbs to replace faulty ones at the wards and surgical
suite

13.3 SURGICAL STATISTICAL PERFORMANCE

The surgical department recorded a decline in admission by 16.2% with 6.5% increase in surgical deaths in 2018 over the previous year. Theatre deaths reduced by 64.3% whilst whereas, the recovery ward death went up from 3 deaths to 5 deaths in 2018.

Table 13.3.1 and figure 13.3.1 below demonstrates a four-year trend of the statistical performance of the sub-BMC.

Indictor	2015	2016	2017	2018
Admission	1,845	2,130	2,230	1,869
Discharges	1,834	2,163	2,247	1,875
Surgical Death (MSW + FSW+ Surgical Suite + Recovery Ward+ ICU surgical cases+ Paedics surgical cases)	99	93	107	114
Death (Theatre)	3	4	14	5
Death (Recovery ward)	5	11	3	5

 Table 13.3. 1
 Surgical Statistics on Performance

Figure 13.3. 1: Surgical Statistics on Performance



13.4 SURGERIES PERFORMED PER SPECIALTY

Out of the eight (8) surgical specialties, only three recorded some increase in surgeries performed in 2018. General surgical operations dropped significantly by 38.2% whilst plastic surgery dropped by 55.6% in 2018. Neurosurgery went up by 181.3% in 2018 (from 16 cases in 2017 to 45 cases in 2018) whilst Urosurgery increased by 27.4%. The decline in general surgeries especially is a major concern and factors contributing to the decline need to be ascertain. Figure 13.4.1 below provides a 3-year trend analysis of surgeries performed by the various specialty.



Figure 13.4. 1: Surgeries Performed Per Specialty

13.5 TOP TEN CAUSES OF SURGICAL ADMISSIONS IN 2018

Hernia is prevalent in central region and remain the leading cause of surgical admissions at the facility. Due to the unique location the hospital, fractures from road traffic accident are mostly referred to the facility. It's not surprising that fracture is the second leading cause of admission at the facility. Non-the-less, cancers (such as breast cancers and prostate cancers) continue to rise and of great concern to stakeholders. Contiguous awareness is required for early detection and treatment to reduce complications. This is demonstrated in figure 13.5.1 and table 13.5.1 below.



Figure 13.5. 1 Top Ten Causes of Surgical Admissions In 2018

Performance Indicators	2017	Performance Indicators	2018
Hernia	387	Hernia	316
Injury	172	Fracture	173
Breast Cancer	155	Bleeding Prostrate	152
Fracture	135	Intestinal Obstruction	107
Cellulitis	131	Injury	106
Bleeding Prostrate	127	Cellulitis	105
Intestinal Obstruction	123	Breast Cancer	102
Appendicitis	118	Appendicitis	95
Gangrene	96	Gangrene	76
Goiter	68	Goiter	42

Table 13.5. 1 Top ten Causes of Surgical Admissions in 2018.

13.6 TOP 10 CAUSES OF SURGICAL MORTALITIES IN 2018

Sepsis, Cancer and Intestinal Obstruction are the leading causes of surgical mortalities at the facility. In 2018, sepsis related deaths increased by 13.9% whilst Cancer related death increased by 27.7%. Clients who died from Deep Vein Thrombosis (DVT) reduced from 3 in 2017 to 1 in 2018. There are various contributing factors that would cause sepsis related deaths and just like cancer, the common measure for delaying or preventing these deaths is early detection and prompt treatment. Awareness on cancer and health seeking behaviour need to be continuously promoted by all and at every level so that all can live a healthy and quality lives. Further, a support system is required as well as the extension of the NHIS to cover cancer related screening test even us health seeking behaviour is being promoted. Figure 13.6.1 and Table 13.6.1 below shows the trend and a comparative analysis of the top 10 surgical mortalities at the facility.



Figure 13.6. 1: Top 10 Causes of Surgical Mortalities In 2018

 Table 13.6. 1: Top 10 Causes of Surgical Mortalities In 2017 and 2018

Performance Indicators	2017	Performance Indicators	2018
Sepsis	29	Sepsis	33
Cancer	22	Cancer	27
Intestinal Obstruction	7	Intestinal Obstruction	8
Pulmonary Embolism	7	Amputation (due to gangrene)	6
Anemia	6	Hernia	3
Multi Organ Failure	6	Cellulitis/Ulcer	3
Gangrene Foot	6	Burns	2
Cellulitis/Ulcer	5	Gastritis	2
CVD	4	Trauma related injuries	2
Respiratory Failure	3	-	-
DVT	3	DVT	1

13.7 DENTAL, EYE EAR NOSE & THROAT (DEENT) DEPARTMENT UNDER SURGICAL SUB-BMC

13.7.1 BACKGROUND OF THE DEENT DEPARTMENT

The DEENT is a new Sub-BMC that management seeks to carve 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.

13.7.2 PERFORMANCE TREND OF DEENT AT OPD BASES – 2014 TO 2018

The department recorded over the past four years (from 2014 to 2017) a continuous steady increase in the cases seen on outpatient bases. However, in 2018, there was a sudden general decline at all the clinics from ENT, Eye, and Dental & Maxillofacial clinics by 6.5%, 4.6% and 6.7% over the previous year respectively. The factors contributing in the 2018 decline need to be determined and addressed to improve on access. Figure 13.7.2.1 below provides a comparative trend analysis of the performance of the three specialties.



13.7.3 SURGERIES PERFORMED BY DEENT DEPARTMENT

Total surgeries performed at the sub-BMC dropped significantly by 35.8% in 2018 (from 1686 in 2017 to 1082 in 2018). Also, the major surgeries reduced by 0.5% whilst the minor surgeries that are mostly done at the clinic's also reduced significantly by 45.8%. all these raise issues about access and equally have financial (revenue) implications for the facility. Reasons in the general decline need to be urgently determined and addressed at all levels. Table 13.7.3.1 below provides detailed comparative analysis on the department'

	201	17	2018						
Unit	Major Surgeries	Minor	Major Surgeries	Minor					
		Surgeries		Surgeries					
Dental	44	1170	104	489					
Eye	187	53	180	75					
ENT	140	92	85	149					
TOTAL	371	1315	369	713					
	Other Procedures								
Refraction	S	1,098	Refractions	2182					
Automate	d visual field	8	Automated visual field	NIL					
Assessme	ent		Assessment						
Binocular	vision Assessment	1	Binocular vision	NIL					
			Assessment						

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Referrals - In						
Eye	-	Eye	211			
Dental	-	Dental	122			
ENT	-	ENT	-			
Referrals – Out						
ENT	-	ENT	125			
Eye	-	Eye	32			
Dental	-	Dental	25			
ENT	-	ENT	29			

13.8 PERFORMANCE FROM OUTREACH PROGRAMME

The Eye department over the years are known for their outreach and screen programme 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. Figure 13.8.1 and table 13.8.1 below illustrates the various outreach programme undertaken and the number of beneficiaries.

Figure 13.8. 1: Performance from Outreach Programme for 2018



Table 13.8. 1 Surgical Outreaches Conducted in 2018

CENTER	CONDITION	NUMBER
European Hospital (Takoradi)	Cataract Pterygium Excision Biopsy Chalazion	64 19 4 1
Mercy Women Center, Mankessim	Cataract Pterygium	17 4
TOTAL		99

The Facility in the last quarter of 2018 introduced the speech therapy clinic. So far, 24 clients have been attended to between October and December 2018 as demonstrated in the table below.

Table 13.8. 2 Perform	nance of Speech	Therapy Clinic
-----------------------	-----------------	----------------

MONTH	NO. OF PATIENTS SEEN
October	12
November	6
December	6

CHAPTER FOURTEEN

PUBLIC HEALTH SERVICES

14.1 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
- 6. Counselling
- 2. Immunization
- 3. Child Welfare Clinic
- 4. Family Planning
- 5. Adolescent Health Services
- 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

14.2 PUBLIC HEALTH UNIT'S 2018 PERFORMANCE AGAINST CCTH STRATEGIC OBJECTIVES

 Table 14.2. 1: Public Health Unit's Performance Against CCTH Strategic Objectives

	2018 OUTCOME AND OUTPUT PERFORMANCE							
CCTH Objective 1: INCREASE THE SCOPE AND IMPROVE THE QUALITY OF SERVICES								
				Ac	tual	2018 Target	Remark	
	Access and	Impact		2017	2018			
i. Couple year p	rotection has in	nproved		1507	1521.6			
ii. Under-five mo	ortality rate (/100	0LB) increased		71	77			
iii. Total under-fiv	e death increas	sed by 10.5%		219	242			
1. Improved on in	mmunization se	rvices						
2. Successful inc	clusion of IPV to	routine vaccines						
3. Conducted reg	gular health edu	cation, counsellin	g and	screenin	g services	to clients		
CCTH OBJECTIVE	2: REDUCE CC	MMUNICABLE A	ND N	ON-CON	MUNICA	BLE DISEASE	ES	
1. Detection/diag	nosis of tuberc	ulosis (TB) increa	sed					
CCTH OBJECTIVE	3: IMPROVE	GOVERNANCE,	RES	OURCE	(HUMAN	& FINANCIA	L) AND	
MANAGEMENT SYS	STEMS							
3.1 Improve on Gov	vernance and N	lanagement Syst	tem					
			-					
3.2 Improve on Hun	nan Resource a	and Managemen	t Syst	em				
1. Adequate staf	f posted to the u	unit						
2. Adequate num	nber of prescrib	ers at the clinics						
3.3 Improve on Fina	3.3 Improve on Finance Resource and Management System							
			-					
OBJECTIVE 4: IMF EXPERIENCE	PROVE HEALT	H RESEARCH,	TEAC	HING A	ND EXCE	ELLENCE LE	ARNING	
4.1 Improve on Res	earch:							
4.2 Improve on Tea	ching and Lea	rning:						

-

2018 OUTCOME AND OUTPUT PERFORMANCE

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

1. Conducted 6 community outreach service

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

1. Relocation of DOT's Centre to Poly clinic

2. Received Digital X-ray machine to enhance care

14.3 IMMUNIZATION TREND (EPI)

Vaccination of pregnant women is essential. Over the past five years' vaccination continue to fluctuate. The number of pregnant women in receipt of tetanus vaccination increased by 16.5% (from 1032 in 2017 to 1202 in 2018). Yellow Fever vaccination of all age groups dropped significantly in 2018 by 30.8% whilst Maternal Vitamin A, also declined greatly by 52.5% over the previous year. BCG vaccination equally reduced by 6% in 2018. These vaccinations are geared towards protecting the immunities against diseases and efforts must be made at all levels to ensure availability of the needed vaccines and acceptability rate. Detailed trend analysis on immunization has been presented in table 14.3.1 below.

Vaccines	2014	2015	2016	2017	2018	% Diff.
BCG	3044	3326	3565	3190	3000	6% decrease
Polio	4927	4509	5088	4514	5122	13.5% increase
Pentavalent (1-3)	1844	1686	2496	1881	2121	12.8.%increase
Rota (1&2)	1532	1414	1226	1596	1780	11.5%. increase
MCV	1024	1686	2496	-	-	
Yellow Fever	256	241	332	263	182	30.8% decrease
MMR	36	31	20	-	-	
Td1/Td2	1308	1302	962	-	-	
Vitamin 'A' 100,000 IU	209	371	332	251	245	2.4% decrease
Vitamin 'A' 200,000 IU	300	819	1496	364	301	17.3% decrease
Maternal VIT A	1605	1132	1224	1426	678	52.5.% decrease
Pneumococcal Vaccine	-	1686	1842	1879	2121	20.9% increase
M.R. 1	-	241	256	258	175	32.2% decrease
M.R 2	-	161	164	218	119	45.4% increase
Tetanus Pregnant	-	1302	1307	1032	1202	16.5% increase
Tetanus Non-Pregnant	-	245	275	333	275	17.4% decrease

Table 14.3. 1: Four-Year Immunization Trend

14.4: 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 four years. The department in 2018 recorded a 19.7% increase in the number of new registrants (from 319 in 2017 to 382 in 2018) with marginal increase in the total attendants by 3.2% (3848 in 2017 to 3973 in 2018). This is illustrated in figure 14.4.1 below.



Figure 14.4. 1: Public Health Child Welfare Clinic from 2015 to 2018

14.5 INTEGRATED DISEASE SURVEILLANCE AND RESPONSE

Disease surveillance is one of the core functions of the public health department and carried out throughout the year for prompt detection response and management towards the prevention of outbreaks. A total of seven varied cases of public health concern were suspected and investigated in 2018. Out of that, cholera and Neonatal Tetanus were confirmed. The table 14.5.1 below provides the detailed analysis of the diseases surveyed in for 2018 and 2017 and their outcome.

	No. Suspected		No Invest	igated	Lab Confirmed	
	2017	2018	2017	2018	2017	2018
Measles	3	3	3	3	0	0
Yellow Fever	1	4	1	4	0	0
Meningitis	3	6	3	0	0	0
Cholera	2	4	2	4	0	1
Neonatal TT.	0	2	0	2	0	2
AFP	1	5	1	5	1	0
Human Rabies	2	0	2	0	0	0
Acute Hemorrhagic Fevers	0	2	0	2	0	0

Table 14.5. 1: Surveillance Activities

14.6 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 2018, RTI cases detected went up by 6.8% over the previous year and out of the 86 samples sent to Noguchi Lab, four were confirmed positive. Table 14.6.1 below shows the trend analysis of number of samples and outcomes.

	2016	2017	2018					
INFLUENZA LIKE ILLNESS								
RTI	100	2025	2163					
Samples Sent	18	187	86					
Positive Cases	0	10	4					
SARI								
RTI Admitted	0	76	9					
Samples Sent	0	24	2					
Positive Cases	0	1	0					

Table 14.6. 1: Influenza Sentinel Survey

14.7 ADOLESCENT SERVICES

In 2018, the department recorded 17.8% decline in the delivery by mothers in the age range of 15years to 19years as (from 354 in 2017 to 18 in 2018). Teenage pregnancy is prevalent in the Central Region. Hence the continuous awareness and education at schools and communities by the public health department over the years on the risks and challenges that are associated with being sexually active as a teenager. Family planning methods are also promoted to adolescents who are unable to abstain from sex to reduce the risk of sexually transmitted diseases and teenage pregnancy. Table 14.7.1 below provides a 3-year trend of the age groups in adolescent health services.

	2015	2016	2017	2018	% Diff.
Antenatal mother at registration - 10-14	0	1	2	2	
Antenatal mother at registration - 15 -	13	9	15	18	20% incr.
19					
Delivery by mother in age group 10-14	9	10	13	12	
years					
Delivery by mother in age group 15-19	327	277	354	291	7.7% decr
years					
Postnatal registrant at age 10-14	35	3	4	3	17.8% decr.
Postnatal registrant at age 15-20	91	95	112	123	9.8% incr.
Abortion mother at age 10-14	0	0	3	2	33.3% decr.
Abortion mother at age 15-19	22	24	19	17	10.5% decr.
Maternal deaths in age group 10-14	0	1	0	0	
years					
Maternal deaths in age group 15-19	4	3	2	1	
years					

Table 14.7. 1: Age Groups and Trend in Adolescent Health Services

14.8 FAMILY PLANNING

Over the past four years, the facility recorded the highest family planning acceptors rate was recorded in 2018. The department recorded 41.1% increase in 2018 (from 1679 in 2017 to 2369 in 2018). Interestingly, the patronage of the female condom has been zero (0) for the past two years whilst the male condom went up significantly by 182.9% (from 94 in 2017 to 266 in 2018). Short term family planning methods in general have significantly dropped by 37.2% whereas, the long-term method increased by 0.96% over the previous year. Evidently, there is the need for awareness and health education to be intensified and strengthened to increase acceptability rate considering the continuous

rise in teenage pregnancy and sexually transmitted infections in the region. This is presented and graphically illustrated on tables 14.8.1 and 14.8.2 and figure 14.8.1 below.

Acceptors	2015	2016	2017	2018	Remarks
Condom M	105	258	94	266	182.9% incr.
Condom F	16	12	0	0	-
Copper T	15	29	14	39	178.6% incr.
Depo Provera	130	297	89	231	159.5% incr.
Jaddelle	29	45	41	92	124.4% incr.
Implanon	11	131	45	82	82.2% incr.
Cycle Beads	0	0	0	32	-
Micro G	17	37	22	18	18.1% decr.
Micro N	9	12	5	40	
Lus	-	7	0	0	
Mini Lap/BTL	72	98	103	94	8.7% decr.
VASECTOMY	1	0	0	3	-
Norigynon	17	6	10	21	110% incr.
Emergency Contraceptives (Postinor)	0	0	0	0	-
LAM	1157	1138	1256	1454	15.8% incr.
Total	1579	2070	1679	2369	41.1% incr.

Table 14.8. 1: Family Planning Acceptors

Table 14.8. 2: Trend of Family Planning Acceptor and CYP

	2015	2016	2017	2018	Remarks					
COMODITY	C.Y. P	C.Y. P	C.Y. P	C.Y.P						
	SHORT TERM									
D U 1										
PILL	12.2	15.4	12.7	23.61						
CONDOM	26.3	37.9	57.3	39.9						
LAM	289.25	284.5	628.0	363.5						
DEPO	67.75	125.75	132.0	92.75						
NORIGYNON	2.25	1.5	3.0	3.2						
TOTAL	397.75	467.75	833.0	522.9	37.2% decr.					
		LONG	S TERM							
JADELLE	101.5	150.53	178.5	217.0						
IMPLANON	27.5	467.5	132.5	169.6						
COPPER - T	56	91	63	87.5						
BTL	792	1078	1133	1034						
CYCLE BEADS	0	0	0	13.5						
TOTAL	977	1787.03	1507	1521.6	0.96% incr.					



Figure 14.8. 1: Couple Year of Protection (CYP) Per Commodity

14.9 SICKLE CELL CLINIC

The sickle cell clinic recorded 17.7% decrease in attendants and the new registrants equally reduced by 18% in 2018 as compared to 2017. OPD provides sickle cell specialized services to provide target intervention to people living with the disease. Although no death was recorded for the past two years, attendance was not encouraging in 2018. Education need to be intensified and awareness created on the availability of the clinic to improve access. Figure 14.9.1 below presents the graphical illustration of the sickle cell clinic performance over the past six years.



Figure 14.9. 1: Five-year Trend in Performance at the Sickle Cell Clinic

14.10 HEALTH PROMOTION ACTIVITIES FOR 2018

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 and locations and medium/mode well planned with varied topics on immerging health issues. In 2018, the frequency of radio health talk show done went up by 77.8% (from 36 in 2017 to 64 sections in 2018), whilst school health talks increased by 33.3% over the previous year. The frequency of peer group education also improved from 3 to 18 sections in 2018. This is presented in table 14.10.1 below.

Activities	Frequency		Remarks
	2017	2018	
OPD Talk	144	147	2.1% incr.
Radio Discussion	36 Sessions	64	77.8% incr.
TV Discussion	0	41	
Durbars	0	0	-
Community Outreach	0	6	
School Health Talks	24	32	33.3 incr.
Focus Client Education	226	502	122.1%
Peer-Group Education	3	18	

 Table 14.10. 1: Health Promotion Activities For 2018

14.11 HIV / AIDS CLINIC

The hospital public health department implements HIV standard operating protocols in the prevention and management of HIV clients and significant others as well as individuals. Screening exercises are done both at the clinics and during outreach programmes for early detection, management and to prevent the spread of the disease. In 2018, the total number of people screened for HIV decreased by 30% and 11.2% over the previous year respectively and out the total 1202 people screened, 167 were positive in 2018. Furthermore, the number of exposed babies tested for HIV increased from 26 in 2017 to 59 in 2018 with the rate of the babies who tested positive dropping from 11.5% to 3.4% in 2018. This represents 11.2% decrease (from 176 positive clients in 2017 to 167 in 2018) and demonstrated in table 14.11.1 below.

	-	-		
	2016	2017	2018	Remarks
Total Screened	1951	1718	1202	30.0% decr.
No. Positive	176	188	167	11.2% decr.
Positivity Rate	9.02%	10.94%	13.89%	2.95% incr.
No. Initiated in Care	176	188	167	11.2% decr.
TB Screening	176	188	167	11.2% decr.
	Early I	nfant Diagnosis	for HIV	
Number of Exposed Babies Tested	-	26	59	
		110		

Table 14.11. 1: HIV Diagnosis Summary

Number Babies with results positive for HIV	-	3	2	
Positivity Rate %	-	11.5%	3.4%	

Note: In 2018, there was a technical challenge across the country in generating HIV data due to the newly installed software for HIV data capturing and reporting (e-tracker). Hence, the trend analysis from 2012 to 2017.

The number of persons diagnosed with HIV increased by 12% in 2017. HIV/AIDS is of great public health concern. Total attendance at the HIV clinic also went up in 2017. The clinic registered 253 new clients and continued with 3629 old clients. 248 clients were put on treatment as compared to 133 in 2016. The clinic recorded 11 deaths as compared to 10 in 2016. The figure below provides a graphical presentation of a 6 years' trend analysis.





The institutional mortality trend among HIV clients have been fluctuating since 2011 to 2017. However, the highest death was recorded in 2011 with 17 deaths. In 2017, 11 HIV clients died and a great concern for all stakeholders considering the treatments that are now available to manage and enable people live a health long life as compared to 20 years ago. The figure 14.11.2 below shows 6-years trend analysis of mortality among HIV clients.

Figure 14.11. 2: Trend of Death of HIV/AIDS Client from 2011 to 2017



14.12 PMTCT-TREND ANALYSIS

The department of public health and Obstetrics department put measures in place yearly to prevent or reduce the risk of mother to child transmission of viral infections (especially HIV and Hepatitis B) through the implementation of SOPs. As a result, all pregnant women are counselled and tested. In 2018, four (4) ANC registrants tested positive to HIV out of the 794 tested and are placed on treatment. Table 14.12.1 below provides a detailed analysis of PMTCT trend from 2014 to 2018.

Indicators	2014	2015	2016	2017	2018
Number of ANC Registrants	569	565	716	748	794
Number Tested & Received Posttest Counselling	613	595	716	748	794
Percentage (%) of Clients Tested	613 (100%)	584 (98.2%)	716 (100%)	748 (100%)	100%
Number Positive	19	20	4	8	4
Number Positive at 34wks	-	0	0	2	0
Number Given ARVs	39	36	6	16	4
Number of Babies on ARVs	-	20	15	20	-
Number of EID Tested	-	58	48	69	59
Number of EID Positive (6wks -18mths)	-	3	4	10	2
Given ARVs as Prophylaxis	18	16	-	-	-

Table 14.12. 1: Pregnant Mother to Child Transmission (PMTCT)

14.13 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

2017 to 18 cases in 2018 and those at high risk equally dropped significantly from 21 in 2017 to 3 in 2018 but all came out negative after following the treatment. This is presented in table 14.13.1 below.

Table 14.13. 1: Post Exposure Prophylaxis

Indicators	2016	2017	2018
Number of Cases Reported	27	24	18
Number at Very Low Risk	7	1	0
Number at Low Risk	6	2	15
Number at High Risk	15	21	3
Number Positive Outcomes	0	0	0

14.14 DONATED BLOOD SCREENED FOR HIV

In accordance with the protocol associated with blood donation and blood transfusion, all blood donated are screened for HIV and other infections. In 2018, out of the 5,746blood donated, 32 of them tested positive to HIV. Evidence has shown that, education on HIV needs to be intensified to reduce the prevalence in the country. Table 14.14.1 below provides a three-year trend analysis.

Table 14.14. 1: Blood Screened For HIV

INDICATION	2016	2017	2018	Remarks
Number of Donated Unit of Blood Screened for HIV	6953	5385	5746	6.7% incr.
Number Positive	55	47	32	31.9% decr.

14.15 TUBERCULOSIS STATISTICAL TREND ANALYSIS

Tuberculosis is a public health concern and turns to be given all the attention needed by the relevant stakeholders and donor partners at all levels. 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 2018, out of the clients suspected of having TB tested, 11 tested positive as compared to 4 in 2017. Two of the clients placed on treatment also defaulted and relapsed in both 2018 and 2017. The detailed trend analysis is provided in table 14.15.1 to 14.15.3 below.

Table 14.15. 1: Tuberculosis Statistical Trend Analysis

Category of cases	2015	2016	2017	2018
New Smear positive	6	7	4	11
Smear negative	17	26	23	16
EPTB	8	6	8	12

Relapse/Return after Defaulter	2	1	2 Def.	2
TTT after failure	0	0	0	0
Other previously diagnosed	0	1	0	1
MDR & PXDR	0	0	0	3
Total cases	33	41	37	45
Outcomes				
Cured	6	6	Pending	-
Treatment completed	25	28		-
Died	1	6		-
Treatment fail	0	0		-
Default	0	0		-
Loss to follow	1	1		-
Cure rate%	75%	75%		-
Treatment success %	93.9%	82.9%		-

The number of clients diagnosed with TB at the facility went up by 3% (from 99 cases in 2017 to 102 cases in 2018). Majority of the TB cases were detected at the OPD clinics whilst and 2 of the cases were detected during home visit. Tables 14.15.2 and 14.15.3 below provides detailed analysis of TB referrals, point of diagnosis and case detection trend.

Table 14.15. 2: CCTH TB Referrals

Cases		Number		
		2017	2018	
Adult	Male	59	43	
	Female	29	40	
Pediatrics	Male	5	12	
	Female	6	7	
Total		99	102 (Includes 2 MDR Referred).	

Table 14.15. 3: TB Point of Diagnosis and Case Detection Trend

TB POINT OF DIAGNOSIS					
	2017	2018			
OPD	-	70			
ART	-	10			
ANC	-	0			
Diabetics	-	0			
Home Visit	-	2			
Paediatric Clinic/Ward	-	24			
Female Wards	-	23			
Male Wards	-	30			

TUBERCULOSIS CASE DETECTION TREND					
Total Normal Cases Detected 137 154					
MDR Cases	0	5 (4+1PXDR)			
Total Referred	96	102			
Total Registered	39	45			

14.16 CERVICAL CANCER SCREENING WITH ACETIC ACID

Cervical Cancer screening over the years have gained a lot of attention from decision makers in Ghana but data have not been regularly captured for evidence-based decision making. Also patronage of the screening has not been encouraging in the past. As such, efforts are continuously being put in place to intensify awareness on cervical cancer screening and possible vaccination. 359 women were screened in 2018 and out of that, 24 were confirmed to be having the legions. Unfortunately, majority of women have little or no knowledge at all about HPV. A lot more need to be done to increase awareness on cervical cancer and benefits of screening. Table 14.16.1 below shows the 2018 screening outcomes.

Table 14.16.	1	Cervical	Cancer	Screening	with	Acetic	Acid
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INDICATORS	2018
No. of Clients Tested	359
No. with lesions.	24
% rate	6.7%

CHAPTER FIFTEEN

PHARMACEUTICAL SERVICES 15.1 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, 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.

15.2 PHARMACY DIRECTORATE'S PERFORMANCE AGAINST CCTH STRATEGIC OBJECTIVES

 Table 15.2. 1: Pharmacy Directorate's 2018 Performance Against CCTH Strategic

 Objectives

2018 OUTCOME AND OUTPUT PERFORMANCE					
CCTH Objective 1: INCREASE THE SCOPE AND IMPROVE THE QUALITY OF SERVICES					
	Actual		2018 Target	Rem	
		0010		ark	
Access and Quality Outcome	2017	2018			
i. % Tracer Drug Availability decrease by 0.05%	96.15%	96.10%			
ii. Prescription to pharmacy ratio increased	1:15177	1:16097			
iii. Percentage antibiotic prescribed increased by 3.2%	15.2%	18.4%			
iv. Percentage Injectable prescribed improved by 1.8%	1.8%	3.6%			
1. The Clinical Pharmacy practice covered 90% of	the wards.				
 Pharmacovigilance and Adverse Drug Reportin clinical staff and ADR forms provided in jackets 	g (ADR) were di o wards and con	sseminate sulting roo	d to all new ms.	ССТН	
3. Emergency Medicines Stocks (Ward Stocks) wer	e reorganized an	d supplied	to all needed	wards	
4. The Main Pharmacy and 24Hour Retail Medicine	e Stores were ins	ured again	st fire by SIC	-	
CCTH OBJECTIVE 2: REDUCE COMMUNICABLE AI	ND NON-COMMU	JNICABLE	DISEASES		
1. Increased Production of Liquid soap at the facilit	У				
CCTH OBJECTIVE 3: IMPROVE GOVERNANCE, MANAGEMENT SYSTEMS	RESOURCE (H	UMAN &	FINANCIAL)	AND	
3.1 Improve on Governance and Management System					
1. One departmental staff durbar organized.					
3.2 Improve on Human Resource and Management System					
1. Recruited ten (10)Dispensing Assistants to support dispensing					
2. The Director of Pharmacy attended the International Conference of Pharmacists in Scotland					
3.3 Improve on Finance Resource and Management System					
FACILITY OUTCOME/IMPACT					
	Ac	tual	2018	Remark	
Access and Impact	2017	2018	8 Target		
i. Total Drug Income GH¢ increased by 24.87%	4,591,576.17	5,733,91	2.53		
ii. Total Drug Purchase GH¢ increased 64.72%	2,723,224.74	4,485,78	4.57		
1. Formed a committee to interrogate the LHIMS to retrieve all medicines dispersed to the NHIS claims office					
OBJECTIVE 4: IMPROVE HEALTH RESEARCH, TEACHING AND EXCELLENCE LEARNING EXPERIENCE					
4.1 Improve on Research:					
 Conducted a Rational Use of Medicine Survey in CCTH 					

2018 OUTCOME AND OUTPUT PERFORMANCE			
4.2 Improve on Teaching and Learning:			
1. 20 pioneer batch of Pharm D students (Doctor of Pharmacy) completed attachment in CCTH			
and the Overall Best student at the Professional exams was from CCTH.			
11 new 6th year replacement students were posted in August from KNUST.			
5 interns were posted by the Pharmacy Council for their internship.			
4. Organised training for Pharmacy Technicians at Ankaful Psychiatric Hospital			
OBJECTIVE 5: INTENSIFY SUPPORT TO THE LOWER LEVEL OF CARE AND SERVICE			
DELIVERY POINTS			
1. Organised training for Pharmacy Technicians from Ankaful Psychiatric Hospital			
OBJECTIVE 6: IMPROVE INFRASTRUCTURE AND EQUIPMENT BASE FOR THE DELIVERY OF			
QUALITY SERVICE			
 A new double cabin Nissan pickup was procured for the Directorate. 			
2. A Laminar flow cabinet was donated to the hospital by Pharmanova Company after a successful			
appeal.			
3. A chamber for housing the Laminar flow cabinet was constructed at Male Medical Ward.			
4. OPD Annex Pharmacy was expanded.			
5. A&E Pharmacy was given a facelift.			

15.3 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.

15.3.1 RUM SURVEY FINDINGS

The findings from prescriber indicator following the RUM survey indicates that, percentage of antibiotics prescribed went up by 3.2% in 2018 whilst medicines prescribed from EDL dropped from 98.4% in 2017 to 90.3% in 2018. The average patients waiting time was measured to be 47 minutes. Table 15.3.1.1 below provides a trend analysis.

Rum Prescribing Indicators	2016	2017	2018
Average consulting time	13.2 mins	14.1 mins	15.7 mins
Average waiting time	-	-	47.0 mins
% Generic prescribed	81.9	94.2	84
% Antibiotics prescribed	13.8	15.2	18.4
% of injectable prescribed	1.6	1.8	6.3

Table 15.3.1. 1: RUM Survey Result - Prescriber Indicator

% of medicines prescribed from	98.2	98.4	90.3
EDL			

Under the dispensing Indicator, the survey shows that, average dispensing communication time went up from 61.5 seconds to 99.2 seconds in 2018. Over the past three years, the percentage of medications labelled before they are dispensed improved from 75.9% to 89.8%. However, there is more room for improvement. Table 15.3.1.2 provides detailed trend analysis below.

Table 15.3.1. 2: RUM Survey Result - Dispensing Indicators

RUM Patient Care Indicators	2016	2017	2018
Average dispensing communication time	60.2 secs	61.5	99.2 secs
Average waiting time	-	-	30.6 mins
Percentage of tracer drug availability	84.7	96.2	96.1
Percentage of medicines adequately labelled	75.9	78.6	89.5
Percentage of patients with knowledge of correct dosage regimen of medicines	90.1	92.3	88.9

15.4 PERFORMANCE TRENDS INDICATORS

The department recorded a 96.1% in tracer medicine availability in 2018. Total prescriptions served in 2018 increased 32.2% in 2018 over the previous year. This reflected on the high prescription to pharmacy ratio from 1:13,694 in 2017 to 1: 16,097 in 2018. The pharmacy department continue have inadequate staff, hence the increasing workload. There is the need for action to reduce the ratio for effective delivery of service. Table 15.4.1 below provides the detailed 3-year trend analysis.

Table 15.4. 1: Performance Trends Indicators

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

SECTION 4
CHAPTER SIXTEEN

CHALLENGES, MITIGATING STRATEGIES AND CONCLUSION

Table 16. 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

16.2 CONCLUSION

The facility recorded some significant improvement in 2018 over the previous year, such as the 45.3% reduction in the fresh still births and reduction in maternal mortality ratio from 1335/100,000LB in 2017 to 860/100,000LB as a result of a collective effort from all stakeholders. In the same light, some gaps were identified in performance of some of the indicators and of great concern to all. It is therefore agreed upon that performance would only improve and be sustained with the needed support and collective efforts from all stakeholders at every level and across board. Some of the key challenges hindering effective delivery of quality tertiary health care at the facility remains infrastructural challenges (absence of Neonatal Intensive Care Unit etc.), the plan is to apply a holistic and targeted strategic approaches in addressing the gaps identified to improve on performance in the 2019 which is the last year for the implementation of the hospital's medium term strategic plan.