KOMFO ANOKYE TEACHING HOSPITAL, KUMASI

KATH

A CENTRE OF EXCELLENCE

ANNUAL REPORT 2015

Komfo Anokye Teaching Hospital, Kumasi

A Center of Excellence


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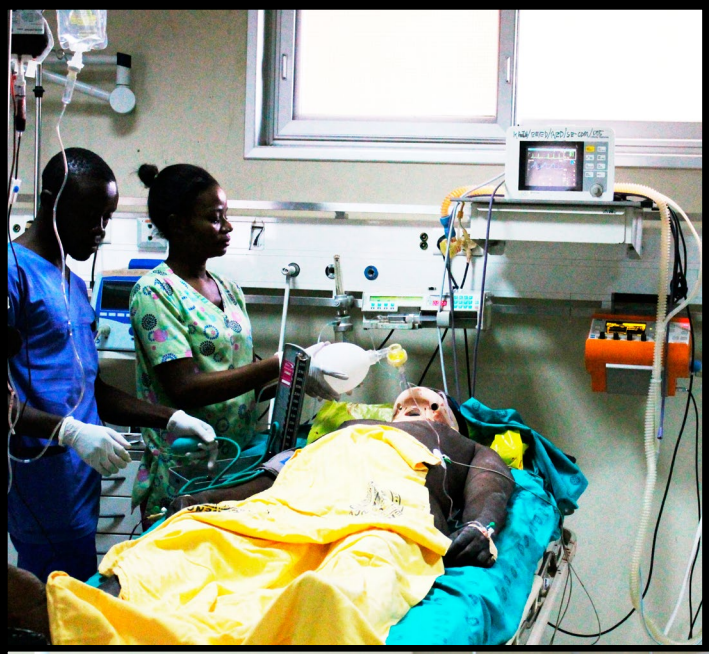



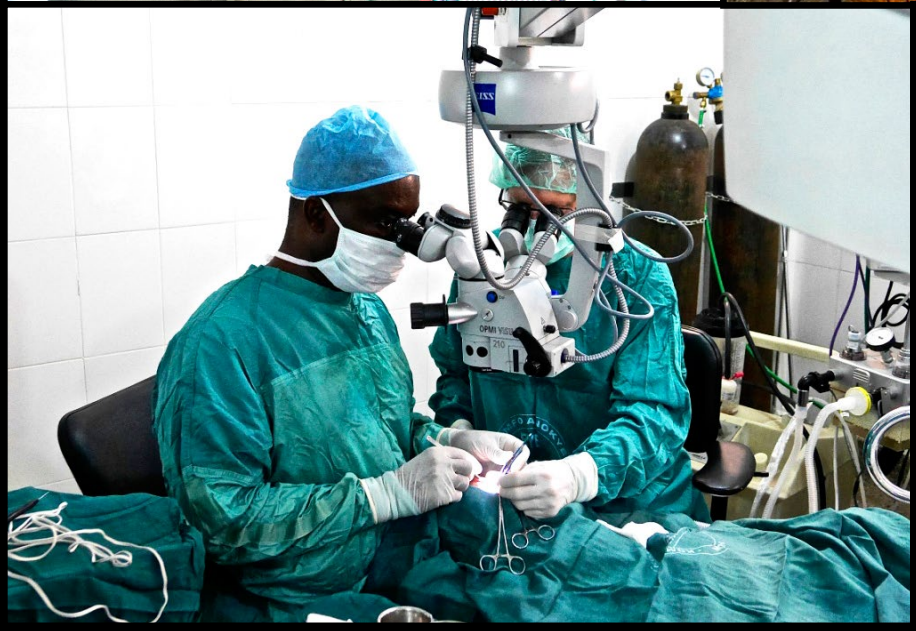
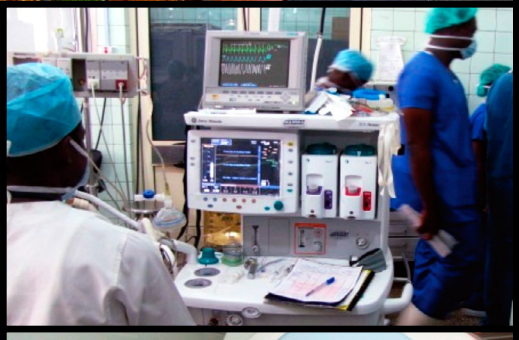


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ACRONYMS

AAOS: Academy of American Orthopaedic Surgeons

A&E: Accident and Emergency

AETC: Advance Emergency Trauma Course

AIDS: Acquired Immune Deficiency Syndrome

AO SEC: Arbeitsgemeinschaft fur Osteosynthesefragen Social Economic Committee

ARIC: Audit and Audit Report Implementation Committee

B.SC.: Bachelor of Science

CAC: Comprehensive Abortion Care

CDC: Centre for Disease Control and Prevention

CPD: Continuous Professional Development

CR: Consulting Room

CSSD: Central Supply Sterilization Department

CPD: Continuous Professional Development

CT: Computerized tomography Scan

CVA: Cerebrovascular Accident/ Stroke

DM: Diabetes Mellitus

DNS: Domain Name System

DOVVSU: Domestic Violence and Victim Support Unit

DPDM: Diploma in Project Design and Management

DSW: Department of Social Welfare

EBRT: External Beam Radiotherapy

ECG: Electrocardiogram

ED: Emergency Department

EEG: Electro Encephalography

EENT: Eye, Ear, Nose and Throat

EMR: Electronic Medical Records

ENT: Ear, Nose and Throat

FFP: Fresh Frozen Plasma

GAAP: Ghana Access and Affordability Partnership Program

GCNM: Ghana College of Nursing and Midwifery

GCPS: Ghana College of Physicians and Surgeons

GHS: Ghana Health Service

GIT: Gastrointestinal Tract

GOG: Government of Ghana

HAMS: Health Administration and Management Systems

HBV: Hepatitis B Virus

HCP: Himalayan Cataract Project

HCV: Hepatitis C Virus

HDU: High Dependency Unit

HIV: Human Immunodeficiency Virus

HOD: Head of Department

HOU: Head of Unit

HPT: Hypertension

HVO: Health Volunteers Overseas

ICT: Information Communication Technology

ICU: Intensive Care Unit

IDF: International Diabetes Federation

IGF: Internally Generated Funds

IGOT: Institute of Global Orthopaedics and Traumatology

IPC: Infection Prevention and Control

IUD: Intrauterine Device/Copper T

IVU: International Voluntary Union of Urologists

KATH: Komfo Anokye Teaching Hospital

KNUST: Kwame Nkrumah University of Science and Technology

LAN: Local Area Network

LAPS: Laparoscopy

LDR: Low Dose Rate

LDU: Low Dependency Unit

LINAC: Linear Particle Accelerator

MAF: Millennium Development Goals Accelerated Framework

MBU: Mother-Baby Unit

MIS: Management Information Systems

MMU: Medicines Management Unit

MOH: Ministry of Health

MRI: Magnetic Resonance Imaging

MSC: Master of Science

NCI : National Cancer Institute

NCT: National Competitive Tendering

NGO: Non-Governmental Organisation

NHIA: National Health Insurance Authority

NHIS: National Health Insurance Scheme

O&G: Obstetrics and Gynaecology

OPD: Out-Patient Department

PEU: Paediatric Emergency Unit

PICU: Paediatric Intensive Care Unit

POP: Plaster of Paris

PPA: Public Procurement Authority

PPH: Post-Partum Haemorrhage

PQ: Price Quotation

QA: Quality Assurance

R&D: Research & Development

RDT'S: Rapid Diagnostic Test

RTI: Respiratory Tract Infection

SBS: Sector Budgetary Support

SCD: Sickle Cell Disease

SCMU: Supply Chain Management Unit

SGHT: St. George's Health Care Trust

SICS: Small Incision Cataract Surgery

SOPD: Surgical Outpatients Department

TAT: Turn Around Time

TB: Tuberculosis

THET: Tropical Health and Education Trust

TMU: Transfusion Medicine Unit

TV: Television

UCSF: University of California, San Francisco

UK: United Kingdom

USA: United States of America

USAID: United States Agency for International Development

UTI: Urinary Tract Infections

WACS: West African College of Surgeons

WHO: World Health Organisation

ACKNOWLEGDEMENTS

The KATH 2015 Annual Report document was made possible by the advice and support of the Chief Executive Officer, Dr. Joseph Akpaloo. The team expresses its sincerest gratitude to the Director of Administration, Mr. George Tetteh and the Director of Finance, Mr. Elvis Kusi who stood solidly behind the team to make this work a success.

Again, we would like to thank all heads of directorates/units and their entire management team members for their diverse contributions in writing their respective directorate/unit annual reports from which this document was developed. The team also expresses its special thanks to all staff of KATH for their commitment and contributions towards the moderate achievements recorded for the year 2015.

Furthermore, we would like to thank Dr. Kathryn Spangenberg (Head, Family Medicine Directorate) for her constructive criticism and also editing and proof reading the report.

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PREFACE

The 2015 Annual Performance Review of the Hospital was held on 31st March, 2016. The workshop was attended by all board members and representatives from Ghana Health Service, Korle-Bu Teaching Hospital, Cape Coast Teaching Hospital and Tamale Teaching Hospital.

The 2015 annual report provides a summary of what the individual directorates/units achieved during the year and performance trend over the last five years.

The annual review followed and relied upon a number of priorities as contained in the Hospital's 2015-2019 Strategic Plan document for which resources were committed to their implementation. These included;

1. Quality health care delivery, leading to better health outcomes, especially in maternal and child health care
2. Improve staff attitude
3. Human resource development and welfare
4. Improve resource mobilization
5. Intensify planned preventive maintenance activities
6. Provide outreach services
7. Strengthen collaboration with other institutions

These priority areas are aligned to the Hospital's Strategic Objectives and the Health Sector Objectives 1, 2, 3, 4 and 5.

The report is divided into 4 sections: Section 1 deals with the introduction, Section 2 reviews the summary of overall performance trends, including financial performance, Section 3 gives an overview of directorates/units performances and Section 4 deals with the summary of achievements, challenges and focus for 2016.

SECTIONS OF THE REPORT

SECTION 1
Introduction

SECTION 2
Performance trends

SECTION 3
Overview of Directorates/Units performances

SECTION 4
Achievements, challenges and focus for 2015.

FROM THE DESK OF THE CHIEF EXECUTIVE

The hospital continues to strive towards achieving excellence as enshrined in its vision. As such, efforts and resources continue to be committed towards achieving this objective.

However, the period under review was challenging. The operational environment was wrought with frequent breakdown of diagnostic equipment, supply difficulties with some consumables and a month long nationwide industrial action by the Ghana Medical Association. These coupled with the infrequent reimbursements from some of our major clients adversely affected operations of the hospital.

In spite of the above, some of the directorates and units performed above levels achieved over the same period in 2014, thanks to the resilience and commitment of staff.

In the period under review, Emergency Cases taken care of stood at 24,200 as against 21,580 in 2014 thus translating into an increase of 12.14%.

Radiotherapy services recorded 6,485 cases as against 6,163 in the year 2014 thus translating into a marginal increase of 5.22%. Blood Units collected were 19,057 as against 15,743 for 2014, which represents a percentage increase of 21.05%.

In spite of the achievements mentioned, all the other service indicators were below target and below what was achieved the preceding year. For instance, with the exception of the Oncology Directorate, which recorded marginal percentage increase in their OPD attendance by 5.30%, all the other Directorates recorded negative percentage change in their services as against the same period in 2014.

Physiotherapy services declined from 22,297 in 2014 to 21,947 in 2015. Surgical operations declined from 20,602 in 2014 to 16,513 in 2015. Diagnostic services also declined from 358,530 in 2014 to 315,946 in the same period in 2015. Specialist OPD Services declined from 257,261 in 2014 to 240,920 in 2015 representing a negative 6.35%.

'The Hospital Continues to Strive Towards Achieving Excellence as Enshrined in its Vision.'

DR. JOSEPH AKPALOO

THE CHIEF EXECUTIVE

Primary care services at the Family Medicine Directorate saw a decline from 67,991 in 2014 to 61,616 in 2015.

Generally, the directorates partially attributed the decline in performance indicators to the doctors' nationwide strike alluded to earlier.

I would like to plead with all the professional groups in the hospital to resort to dialogue in future in their quest to demand for condition of services. This is because we are working in a fragile environment where the effects of such strikes have a tremendous impact on services delivery.

Notwithstanding, the hospital witnessed a major upgrade in some of its facilities and services during the period under review.

Additionally, Management with the support of the Board successfully outsourced cash collections at the hospital to the Fidelity Bank as part of measures being carried out to enhance efficiency in revenue generation.

In pursing the above, care has been taken to ensure that no revenue collector at the hospital loses his or her job as all those affected would be redeployed to other units where their services will be most needed.

Renovation and expansion works also commenced at the Oral Health Directorate to create additional Consulting Rooms at the cost of GH¢237,080.35. The project is currently 75% complete.

To enhance the human resource capacity of the hospital which is the driving force for the transformation of any institution, the hospital incurred a cost of GH¢601,558.36 on sponsorship for staff pursuing further training in various specialties in Ghana and beyond.

In line with our mandate of supporting the Ghana Health Service (GHS) facilities, some of the clinical directorates at the hospital undertook a number of outreach programmes to some district hospitals in the country.

The Eye Unit for instance went to the Kintampo, Wenchi and Samreboi District Hospitals among others to provide specialist ophthalmic services to needy patients.

The Obstetrics and Gynaecology Directorate also visited over 20 hospitals in the Ashanti, Brong Ahafo, Central and the Western Regions to provide clinical support and training as part of efforts to reduce maternal mortalities.

In the coming years, the hospital intends to deepen its collaboration with the Ghana Health Service (GHS) through such outreach programmes so as to improve the quality of health care services in these parts of the country.

Management also wish to reiterate its appeal made a year ago to the Ministry of Health(MOH) for a new and bigger oxygen plant as it has been done for similar health institutions in the country. The obsolete oxygen plant at the hospital should have been decommissioned years ago. The plant is operating below capacity and the hospital is still sourcing some of its oxygen needs from private providers to augment in-house production of the product.

Management will also pursue the continuation of works on the Maternity and Children's Block project and the Ghana National Petroleum Corporation funded Sickle Cell and Blood Centre. The hospital is in dire need of new facilities to further improve the quality of its services and it is the hope of Management that the completion of the above facilities will help to achieve this objective.

Finally, I wish to commend once again, the Board, staff members and the various professional groups for their continued support throughout the year. My humble appeal is for us all to work extra hard to claw back the declining service figures recorded last year.

I particularly wish to urge all the heads of units and directorates to map out strategies to improve performance and enhance the quality of services to our clients and the fortunes of the hospital.

Thank you.

INTRODUCTION

1

The Komfo Anokye Teaching Hospital (KATH) is a 1,300 bed capacity tertiary level health facility located in Kumasi. It was established in 1955 as the Kumasi Central Hospital. The name was later changed to Komfo Anokye Hospital, in honour and memory of the powerful and legendary fetish priest, Komfo Anokye.

The Hospital became a Teaching Hospital for the training of medical students from Kwame Nkrumah University of Science and Technology in 1975. Currently, it is a training centre for Ghana College of Physicians and Surgeons, West African College of Physicians and West African College of Surgeons. In addition, the hospital provides training for nurses and midwives from Kumasi Nurses and Midwifery Training College and nurses from other nurses training colleges in the metropolis as well as Pharmacy and Medical laboratory scientist students from KNUST.

The hospital has twelve (12) clinical directorates and two (2) non-clinical directorates. Each directorate is managed by a management team. The management team members see to the day-to-day management of the various directorates. Central management concentrates on strategic management and planning and provides support to the various directorates/units.

The catchment area of the hospital stretches beyond Ashanti Region, Brong Ahafo, and the three Northern Regions, and to some parts of the Western, Central Regions.

◇Governance

1. The Ghana Health Service and Teaching Hospitals Act 525, 1996 established autonomous Teaching Hospital Boards.
2. The hospital is governed by a Board made up of 4 Non-Executive members (government appointees), 6 Executive members, the Dean of the School of Medical Sciences and the Dean of the Dental School.
3. The hospital operates within the Ministry of Health broad Policy Framework
4. The Chief Executive is in charge of the day to day management of the hospital

CORE VALUES

ONE
Client Focused

TWO
Staff Empowerment

THREE
Continuous Quality Improvement

FOUR
Recognition of Hard Work and Innovation

FIVE
Discipline

SIX
Team Work

◇ Vision

The vision of the hospital is to become a centre of excellence in the provision of specialist health care services.

◇ Mission

The mission of the hospital is to provide quality services to meet the needs and expectations of clients. This will be achieved through well-motivated and committed staff applying best practices and innovations.

◇ Core Values

All the activities of the hospital will be built on the following values;

1. Client focused
2. Staff empowerment
3. Continuous quality improvement
4. Recognition of hard work and innovation
5. Discipline
6. Team work

◇ Corporate Objectives

The corporate objectives which guided the actions of the hospital for the year 2015 are as follows:

1. To provide Specialist Healthcare Services
2. To support Training of Undergraduate and Postgraduate Health Professionals
3. To Conduct Research into Emerging Health Problems
4. To Support Primary and Secondary Health

◇ Health Sector Objectives Pursued in 2015

In 2015, the objectives of KATH fell in line with the following broad objectives pursued by the Health Sector;

HO.1: Bridge equity gaps in geographical access to health services

HO.2: Ensure sustainable financing for health care delivery

HO.3: Improve efficiency in governance and management of the health system

HO.4: Improve quality of health services delivery including mental health

H.O.5: Enhance national capacity for the attainment of the health related MDGs and sustain the gains

◇ Services Provided by Directorates

The hospital provides services in aspects of specialist care. This is in fulfilment of its mandate of providing advanced clinical care services to all people living in Ghana. The following are the summary of services provided in the hospital;

OBSTETRICS AND GYNAECOLOGY

- Foeto-maternal Medicine
- Gynaecologic-oncology
- Urogynaecology
- General Obstetrics & Gynaecology
- Family Planning
- Reproductive Medicine & Assisted Conception

CHILD HEALTH

- Cardiology
- Neurology
- Respiratory Medicine
- Paediatric Emergency
- Nephrology
- Gastroenterology
- Infectious Diseases
- Neonatology
- Oncology/Haematology

MEDICINE

- Cardiology
- Endocrinology
- Nephrology Renal Dialysis

- Gastroenterology
- Haematology
- Respiratory Medicine
- Psychiatry
- Infectious Diseases

SURGERY

- Paediatric Surgery
- Plastic Surgery
- Urology
- Neurosurgery
- General Surgery
- Cardiothoracic and Vascular Surgery

EMERGENCY MEDICINE

- Emergency services
- Minor surgeries

TRAUMATOLOGY & ORTHOPAEDICS

- Trauma
- Orthopaedics

EYE, EAR, NOSE, THROAT (EENT)

- Ear Nose and Throat
- Ophthalmology

Occuloplastic,Glaucoma, Retina, External eye disease and cornea, Paediatric ophthalmology and adult strabismus, Neuro-ophthalmology, Refraction and low vision services, Investigations and imaging services

ORAL HEALTH

- Oral Diagnosis
- Oral/maxillofacial Surgery
- Restorative Dentistry
- Orthodontics & Paedodontics
- Community Dentistry

ANAESTHESIA & INTENSIVE CARE

- Intensive care
- Anaesthesia
- Pain Medicine

DIAGNOSTICS

- Pathology
- Chemical pathology
- Radiology /Imaging
- Microbiology
- Haematology

FAMILY MEDICINE

- Primary Care
- Specialist Family Medicine
- Physiotherapy

ONCOLOGY

- Radiation therapy
- Brachytherapy
- Chemotherapy

TECHNICAL SERVICES

- Biomedical Engineering
- Plants and Machinery
- Estates
- Environmental Health Services

DOMESTICS SERVICES

- Sterilization services
- Catering services
- Laundry services
- Transport services

OTHER SUPPORTING UNITS

- Human Resource Management
- Policy, Planning, Monitoring & Evaluation
- Public Relations
- General Administration
- Supply Chain Management
- Internal Audit
- Biostatistics
- Quality Assurance
- Security
- Transfusion Medicine
- ICT - Information and Communications Technology
- Research and Development
- Pharmacy
- Finance
- Health Insurance
- Social Welfare
- Public Health

◇ Corporate Priorities for 2015

The priorities of the hospital for the period January – December 2015 were drawn from the Hospital 2015-2019 Strategic Plan and aligned to the Health Sector Medium Term Objectives 1,2,3,4, and 5. The priorities are as follows:

1. Quality health care delivery
2. Improved staff attitude
3. Human resource development and welfare
4. Improved resource mobilization
5. Strengthen collaboration with other institutions
6. Intensify planned preventive maintenance activities
7. Provision of outreach services

◇ Priority Activities

The priority activities pursued by KATH in 2015 are as follows;

1. Increase the range of specialist services
2. Sustain activities to reduce mortalities, especially maternal and neonatal deaths
3. Continue to support Emergency Services
4. Continue the provision of advanced diagnostic services
5. Conduct operational research into emerging diseases
6. Procure requisite medical equipment, especially imaging equipment to improve service delivery
7. Support district and regional hospitals in the northern sector of Ghana, by way of providing outreach services
8. Continue to improve performance monitoring and promote financial accountability and controls
9. Expand Oncology centre to include Nuclear Medicine Treatment and Diagnostic Unit
10. Continue efforts in securing the necessary funds for the completion of the children and maternity block
11. Intensify planned preventive maintenance activities
12. Improve Management Information Systems
13. Support training of staff
14. Provide infrastructure for clinical training of students

◇ 2015 Hospital-wide Expected Outputs

For 2015 KATH was expected to provide the following services;

1. Specialist Out-patients; 267,109 seen.
2. General Outpatients; 86,000 seen.
3. In-patients/Admissions; 43,502 recorded.
4. Surgical operations (Major & Minor); 25,015 performed.
5. Emergency cases; 31,800 recorded.
6. Deliveries; 11,000 supervised.
7. Physiotherapy services; 23,116 patients seen.
8. Blood Units; 22,000 screened.
9. Diagnostic investigations; 454,178 conducted.
10. Radiotherapy treatments; 7,100 sessions.
11. Maternal death rate reduced by ≥ 10% of 2014 rate of 1087.18/100,000 live births.
12. Neonatal mortality reduced by ≥ 10% of base rate of 13.1%.
13. Maternal deaths on unconfirmed diagnosis; 100% post-mortem conducted on.
14. Maternal deaths; 100% audited.
15. Neonatal deaths; 20% audited.
16. Outreach services; 25 district hospitals supported.
17. Patient satisfaction level improved from 54% in 2014 to ≥60%.
18. Bed Occupancy rates at O&G and Child Health reduced to 110%.
19. NHIA claims rejection rate reduced to 3% from 5% in 2014.
20. Total expenditure reduced by 2.5%.

HUMAN RESOURCE PERFORMANCE

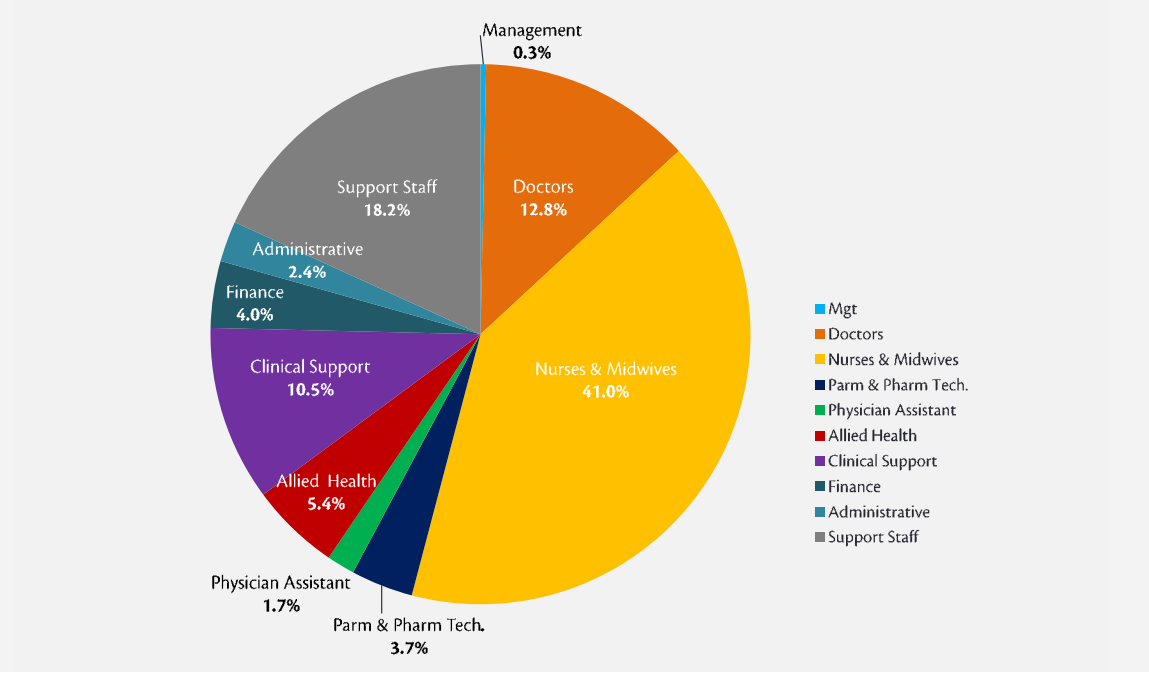
2

The hospital's strategic focus on Human Resource Management for the year 2015 was to provide training and development opportunities for all staff, improve staff attitude and staff welfare and uphold discipline.

◇Staff Strength Analysis

In the year 2015, the total workforce was 3,859. This comprises of KATH Staff – 3,401, House Officers – 154, Residents from other institutions – 132 and KNUST Staff-72. There was a decline of 2.1% in the total workforce compared to the 2014 figure of 3,943. Figure 1 shows the categories of staff that worked in the hospital during the period under review.

Figure 1: ***Category of Staff by Professional Groups***



The staff analysis for 2015 shows that 41.0% of the total staff were Nurses and Midwives, 12.8% Doctors, 10.5% Clinical Support, 3.7% being Pharmacists and Pharmacy Technicians, 18.2% Support Staff, 6.4% Administration and Finance and 6.4% being Allied Health Staff.

◇ Age Group of Staff

In the year 2015, staff analysis revealed that 48.7% of staff were between 30-39 years and 21.9% were also in the range of 20-29 years, 12.8% in the category of 40 – 49 years and 16.6% between the age ranges of 50 – 59 years.

It is clear from the above that generally, about 70.6% of the staff are within the age bracket of 20 – 39 years as shown in the figure 2. The hospital has a youthful and vibrant workforce.

◇ Staff Strength Analysis for Doctors

The total number of KATH doctors in the year was 384 made up of 67 Consultants and Senior Specialist representing 17.44%, 78 specialist representing 20.31% and 182 Medical Officers representing 47.39%. There were 57 doctors from the KNUST/SMS who provided service at the hospital in 2015.

There were total of 57 Physician Assistants (Anaesthesia) and 3 Physician Assistant (Dental) in the year.

Figure 2: *Age Group of Staff*

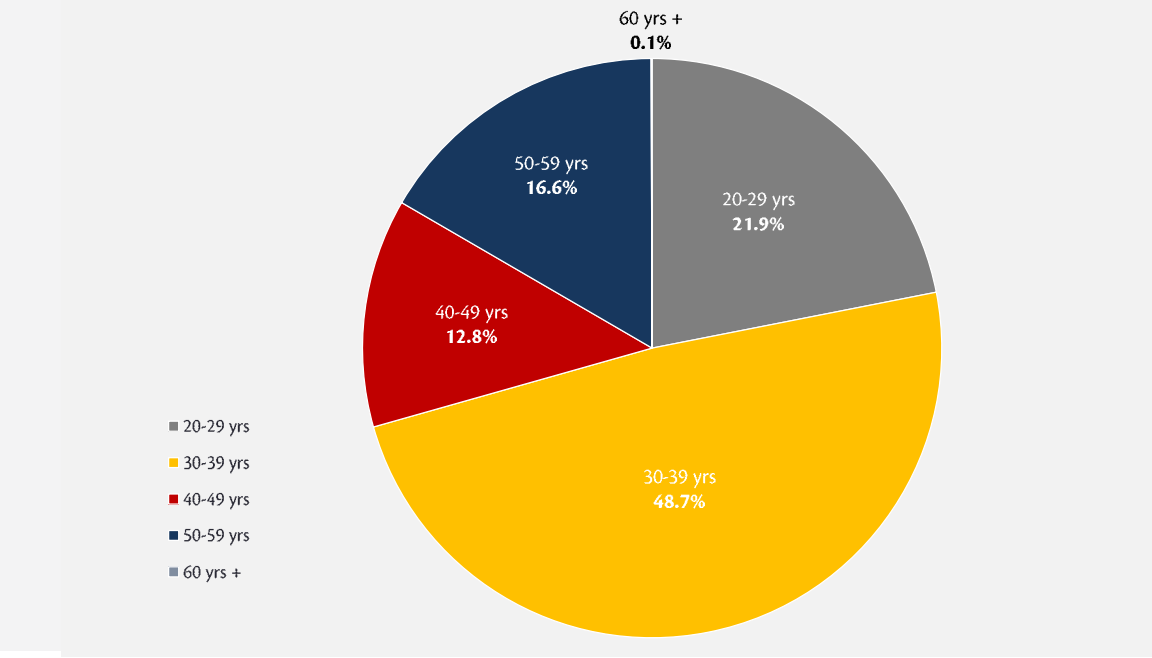


Table 1: Number of Doctors and Physician Assistants per Directorate/Unit

DIRECTORATE/UNIT	CONSULTANTS/ SENIOR SPECIALISTS	SPECIALISTS	MEDICAL OFFICERS	KNUST/SMS DOCTORS	TOTAL	PHYSICIAN ASSISTANTS
Anaesthesia & Intensive Care	1	4	13	4	22	57
Child Health	7	13	29	6	55	0
Diagnostics	4	3	17	8	32	0
EENT	4	3	4	5	16	0
Emergency Medicine	1	8	14	0	23	0
Family Medicine	1	5	23	0	29	0
Medicine	7	18	30	11	66	0

Obs/Gyn	12	4	15	13	44	0
Oncology	1	0	7	0	8	0
Oral Health	4	0	7	4	15	3
Public Health	0	3	1	0	4	0
Research & Development	0	0	1	0	1	0
Surgery	18	12	11	13	46	0
Transfusion Medicine	1	0	2	0	3	0
Trauma & Orthopaedics	6	5	8	1	20	0
TOTAL	**67**	**78**	**182**	**57**	**384**	**60**

◇ *Staff Strength Analysis for Nurses and Midwives*

In 2015, the total Nurses and Midwives population decreased from 1,531 in 2014 to 1485. The decrease was mainly because new nurses and midwives were not recruited to replace the number of transfers, resignations, vacation of posts, deaths, retirements and dismissals during the year, due to challenges in securing financial clearance.

Table 2: *Nurses and Midwives by Directorates*

DIRECTORATE	MIDWIVES	PROFESSIONAL NURSES	ENROLLED NURSES	COMMUNITY HEALTH NURSES
Anaesthesia &Intensive Care	1	75	14	0
Child Health	13	108	25	0
CSSD	0	4	1	0
Diagnostics	0	0	1	0
EENT	2	54	13	0
Emergency Medicine	2	171	29	0
Family Medicine	3	21	35	0
Human Resource	0	1	0	0
Medicine	3	163	58	0
Obstetrics & Gynaecology	246	31	4	0
Oncology	0	16	0	0
Oral Health	0	22	4	0
Public Health	0	4	0	27
Quality Assurance	0	1	0	0
Surgery	2	144	74	0
Transfusion Medicine	1	0	2	0
Trauma & Orthopaedics	5	64	41	0
TOTAL	**278**	**879**	**301**	**27**

◇Staff Strength Analysis for Pharmacists and Pharmacy Technicians

In 2015, the hospital had 60 Pharmacists and 69 Pharmacy Technicians working in the various directorates and units.

Table 3: *Pharmacists and Pharmacy Technicians by Directorates*

DIRECTORATE	PHARMACISTS	PHARMACY TECHNICIANS
Anaesthesia & Intensive Care	1	2
Child Health	7	5
EENT	5	4
Emergency Medicine	7	6
Family Medicine	6	11
Medicine	10	8
Obstetrics & Gynaecology	5	8
Oncology	1	2
Oral Health	1	0
Medicines Management	2	2
Manufacturing	2	4
Specialist OPD	5	11
Drug Information	2	0
Surgery	6	7
TOTAL	**60**	**69**

◇Staff Strength Analysis for Allied Health Professionals

In 2015, the hospital had a total number of 195 Allied Health professionals providing services in their various fields.

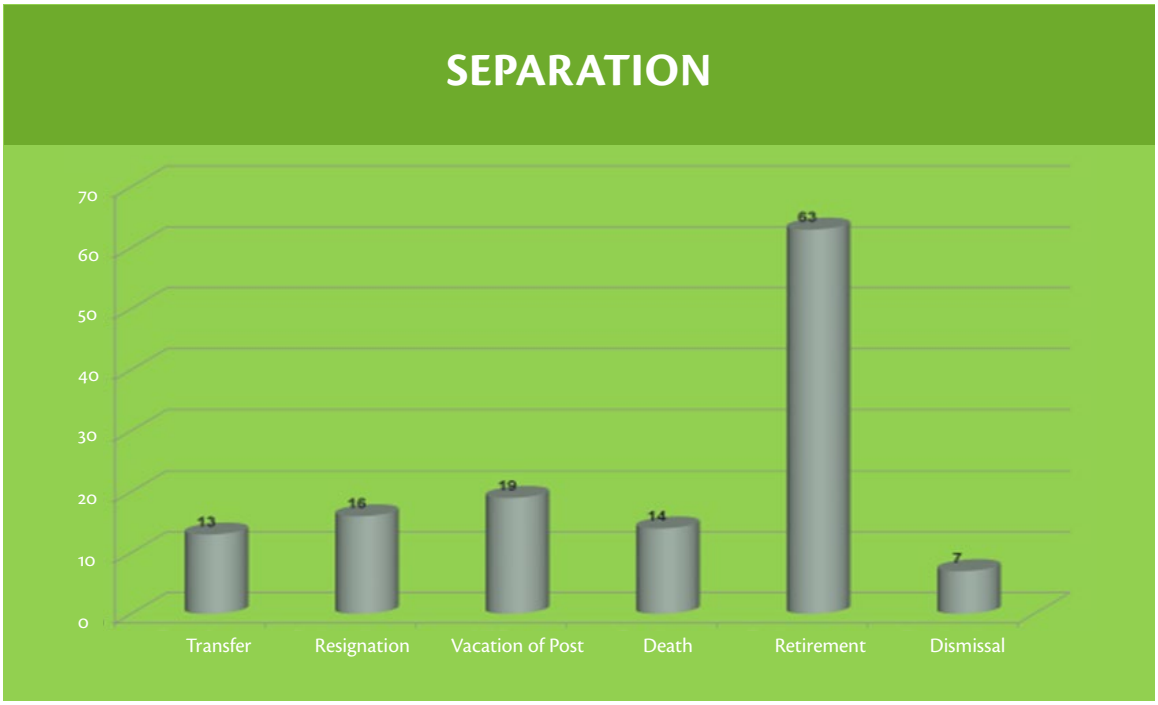
Table 4: *Allied Health Staff per Cadre*

CADRE	NUMBER AT POST
Biomedical Scientist	64
Biostatistics Officer	7
Dental Prosthesis Technologist/ Technician	2
Dietician	2
Nutrition Officer	6
Optometrist	3
Physiotherapist	22
Radiographer/Technician	12
Therapy Radiographer	4
Ultrasonographer	1
Technical Officer – Disease Control	2
Dental Surgery Assistant	6
Technical Officer – Biostatistics/Health Information	33
Physiotherapy Assistant	0
Technical Officer (Lab)	11
Technical Officer (XRay)	3
Technical Officer – Nutrition	1
Biostatistics Assistant	12
Optical Technician	2
Field Technician	2

◇Separation

The number of staff who left the hospital through transfer, resignation, vacation of post, death, retirement and dismissal dropped from 139 in 2014 to 132 in 2015.

Figure 3: ***Separated Staff***



◇ *Staff Training and Development*

In the year 2015, training and development activities were intensified in line with the hospital's vision. A total of 682 staff received in-service training. A total of 142 were also given the opportunity to further their studies on study leave with/without pay, part-time, sandwich and online basis during the period under review. There were 66 staff from the previous year who were still studying during the period under review.

◇ *Staff Welfare and Recognition programmes*

In the year 2015, 179 staff benefited from the hospital's free medical care scheme. Birthday cards were sent to staff during their birthdays and Christmas packages were given to staff during the year under review. A committee was set up to see to the award of best and long service staff for the years 2014 and 2015.

CLINICAL CARE SERVICES

3

This chapter presents a detailed summary of the hospital's clinical care performance in the year under review. Achievements made in out-patient services utilization, in-patient services, surgical operations performed, diagnostic services and some other observable achievements made are classified below;

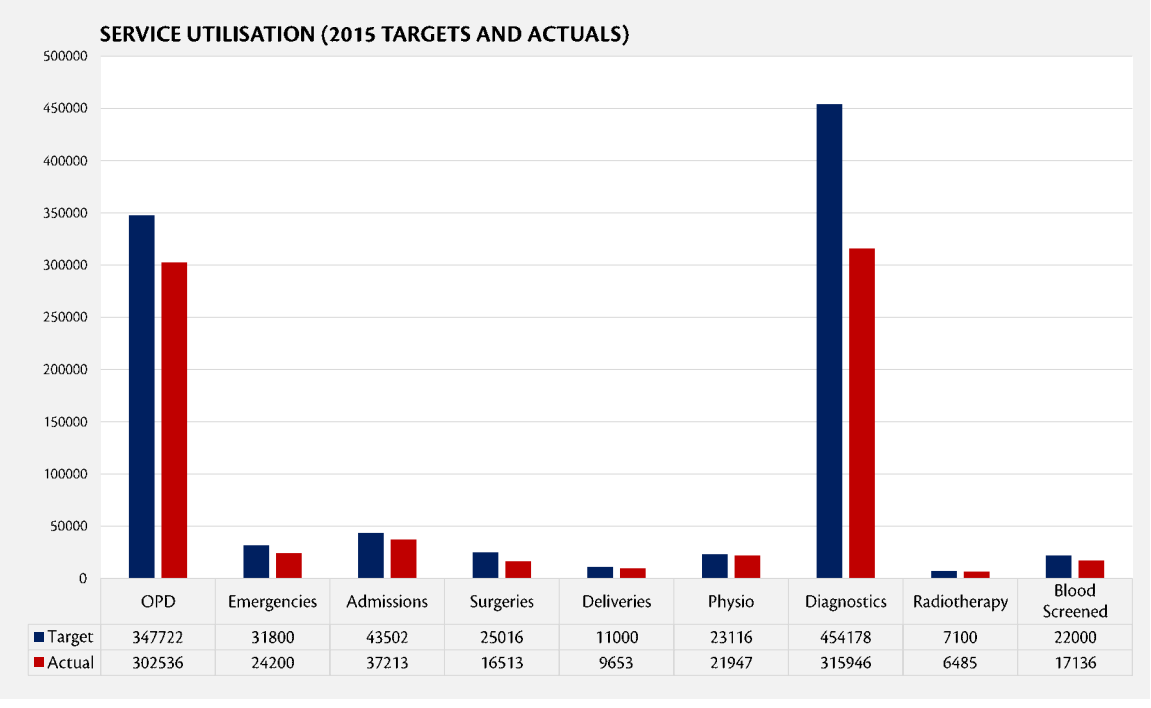
◇ *Priority Activity 1*

INCREASE THE RANGE OF SPECIALIST SERVICES

2015 SERVICE TARGETS AND ACTUAL UTILIZATIONS

The hospital set performance targets at the beginning of 2015. These targets were benchmarks to measure the hospital's performance at the end of the year. The chart below presents a summary of these targets and the achievements made during the period.

Figure 4: *Service Utilization (2015 Targets and Actuals)*



	OPD	Emergencies	Admissions	Surgeries	Deliveries	Physio	Diagnostics	Radiotherapy	Blood Screened
Target	347722	31800	43502	25016	11000	23116	454178	7100	22000
Actual	302536	24200	37213	16513	9653	21947	315946	6485	17136

As depicted above, all the clinical targets were not achieved during the year under review.

OUTPATIENT SERVICES

Generally, the number of OPD visits in the hospital was mixed with variations between years and specialties. The responsibility of the decentralized directorates is the provision of outpatient services to our clients. Family Medicine Directorate provides general outpatient, family medicine and physiotherapy services whiles the other clinical directorates deal with specialist services.

TREND ANALYSIS OF OPD UTILIZATION BY DIRECTORATES

Trends of OPD attendance in various directorates have been inconsistent for the past five years. Figure 6 shows performances across individual specialties and the Family Medicine Directorate.

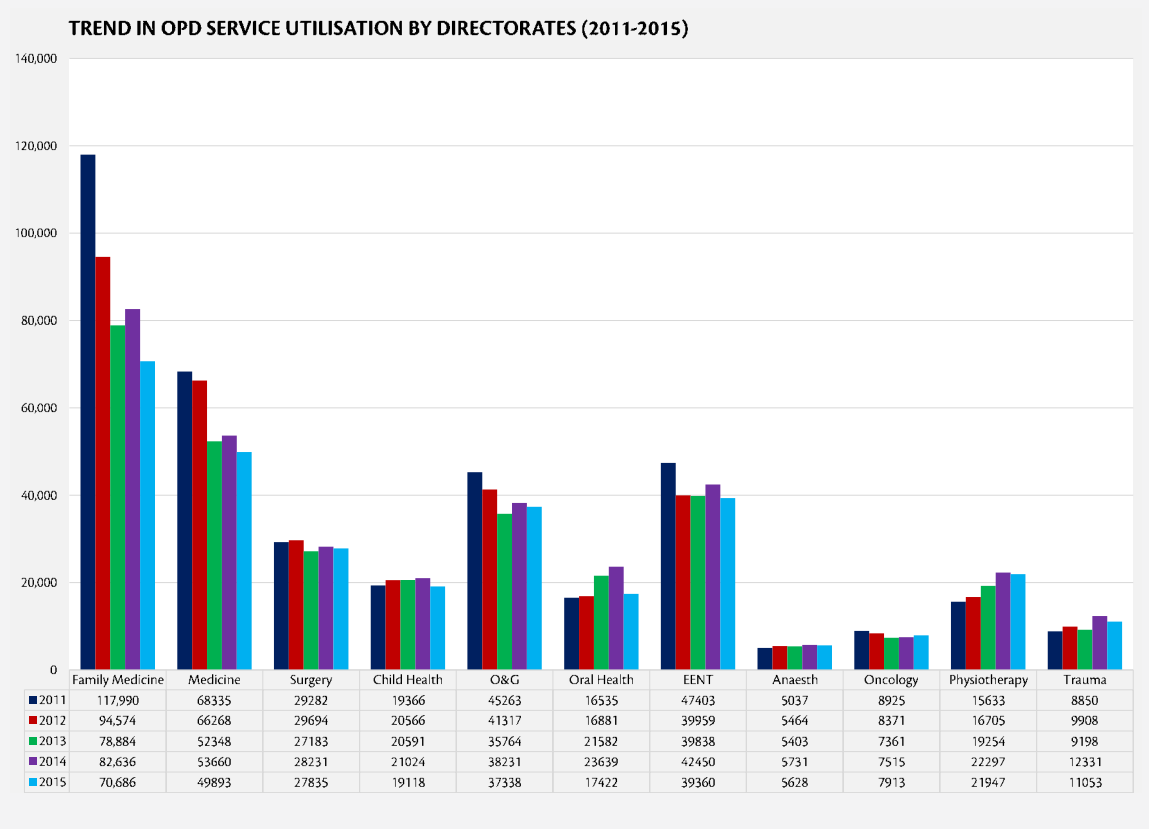
TREND IN AGGREGATED OPD SERVICES UTILIZATION

Aggregated OPD service utilisation in the hospital recorded a decrease of 10.4% below the previous year's figure of 337,745. In the last five years, the year 2011 recorded the highest OPD performance of 382,752 with 2015 recording the lowest. Figure 7 below, indicates the trend in OPD performance in the hospital for the last five years.

TOP TEN SPECIALIST OPD ATTENDANCE

The table below shows top ten specialist OPD attendance recorded during the year under review, with Consulting Room 8 recording the highest OPD attendance of 37,338 and Trauma and Orthopaedic with the least of 8,758.

Figure 5: ***Trend in OPD Service Utilization***



	Family Medicine	Medicine	Surgery	Child Health	O&G	Oral Health	EENT	Anaesth	Oncology	Physiotherapy	Trauma
2011	117,990	68335	29282	19366	45263	16535	47403	5037	8925	15633	8850
2012	94,574	66268	29694	20566	41317	16881	39959	5464	8371	16705	9908
2013	78,884	52348	27183	20591	35764	21582	39838	5403	7361	19254	9198
2014	82,636	53660	28231	21024	38231	23639	42450	5731	7515	22297	12331
2015	70,686	49893	27835	19118	37338	17422	39360	5628	7913	21947	11053

In 2015, with the exception of Oncology which recorded a marginal increase of 5.3%, there was a general decline in OPD attendance in the hospital.

Figure 6: *Trend in OPD Service Utilization by Directorates*

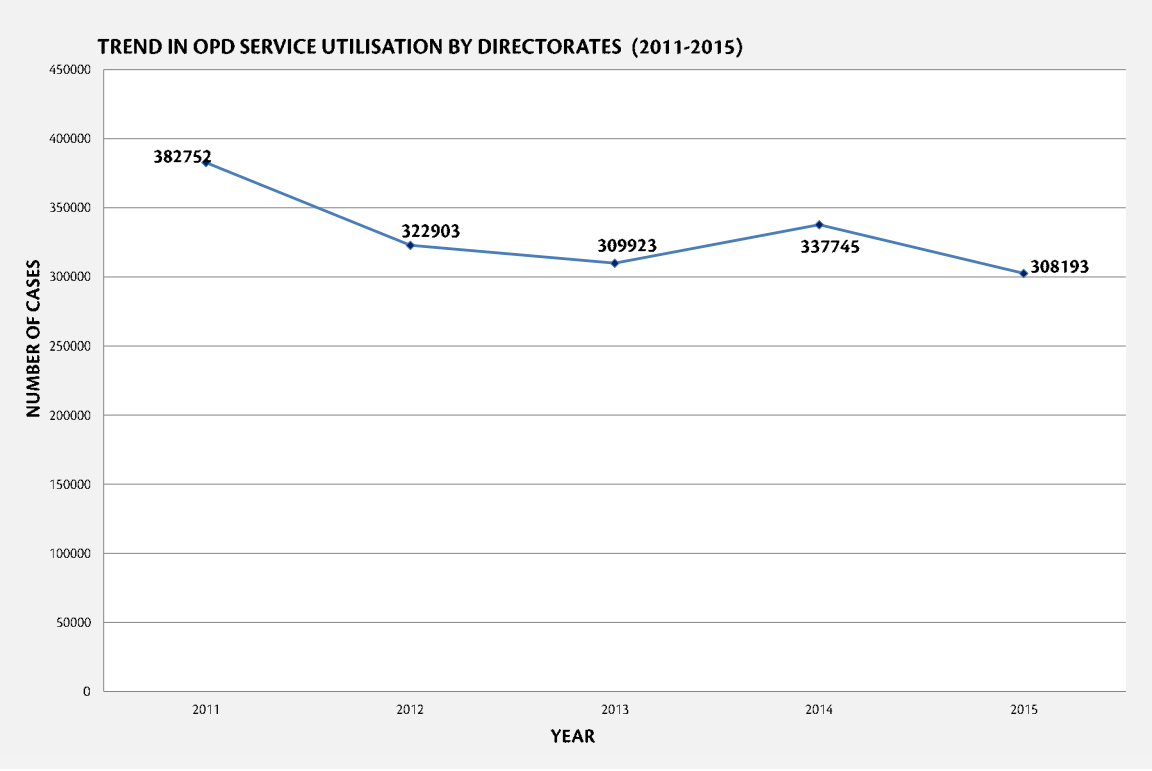


Table 5: *Top Ten Specialist OPD Attendance*

RANK	CLINIC	TOTAL	% OF TOTAL SPECIALIST ATTENDANCE
1	OBGY & FAMILY PLAN.	37,338	12.3
2	EYE	24,620	8.1
3	PHYSIOTHERAPY	21,947	7.3
4	ORAL HEALTH	17,422	5.8
5	ENT	14,621	4.8
6	DIABETES	10,729	3.6
7	INTERNAL(GENERAL) MEDICINE	10,543	3.5
8	PSYCHIATRY (MENTAL HEALTH)	10,418	3.4
9	FAMILY MED. (CHRONIC CARE & REFERRALS)	9,070	3.0
10	TRAUMA & ORTHOPAEDIC	8,979	3.0

ADMISSIONS

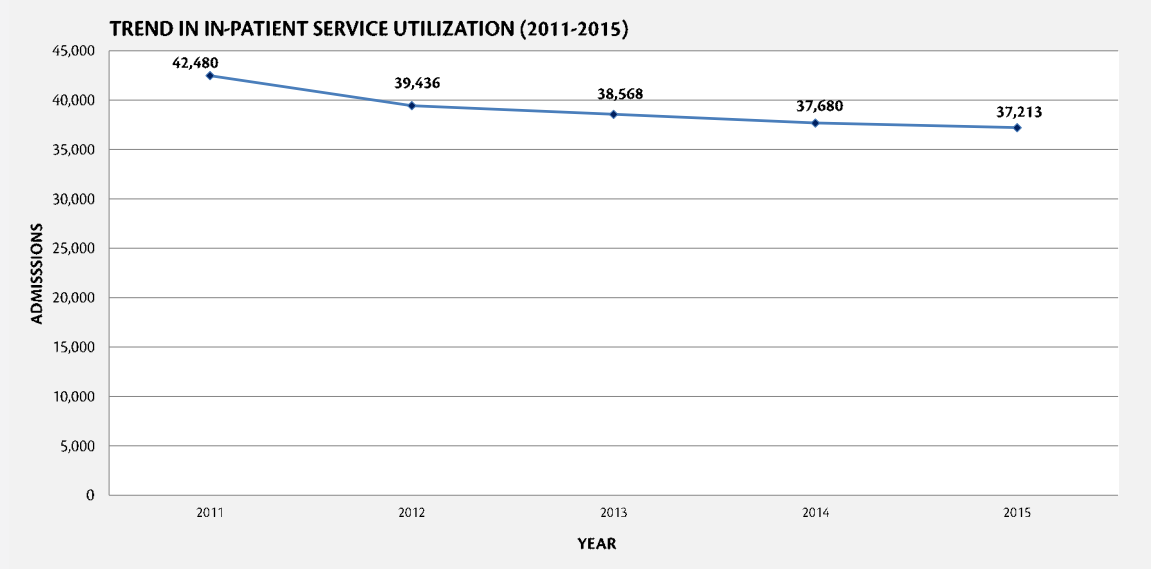
Specialist clinical directorates of the hospital provide in-patients services. During the period under review, the total number of in-patient (wards) beds for the hospital increased from 858 to 891. In addition to the 891 in-patient beds there were also 257 emergency beds, 57 treatment/ examination beds and 41 recovery beds making a total bed capacity in the hospital to be 1,312.

In 2015, the hospital recorded a total of 37, 213 admissions at the main wards. There has been a downward trend in hospital admissions since 2011. Admissions decreased by 1.2% as compared to 2014 admissions. The figure below shows the trend from 2011-2015.

THEATRE SERVICES UTILIZATION

There are five (5) operating theatre blocks in the hospital. These theatres have several operating rooms: Main Theatre Block (5 operating rooms) performed a total of 3,088 cases, A1 Theatre (2 operating rooms) a total of, 4,506 cases were done. Polyclinic Theatre (2 operating rooms) performed a total of 1,010 cases, A&E theatre (4 operating rooms) performed a total of 3,102 cases and A&E special ward theatre also performed 388 cases. The Eye theatre also performed a total of 1,761 cases during the year under review. The hospital also operates an Intensive Care Unit (ICU) at the Accident and Emergency Centre.

Figure 7: *Trend in In-patient Service Utilization*



In general, there was a decline in percentage bed occupancy from 80.2% to 79.6% in 2015. However, average length of stay on the wards has remained the same (7 days) since 2012.

TOP TEN CAUSES OF ADMISSIONS

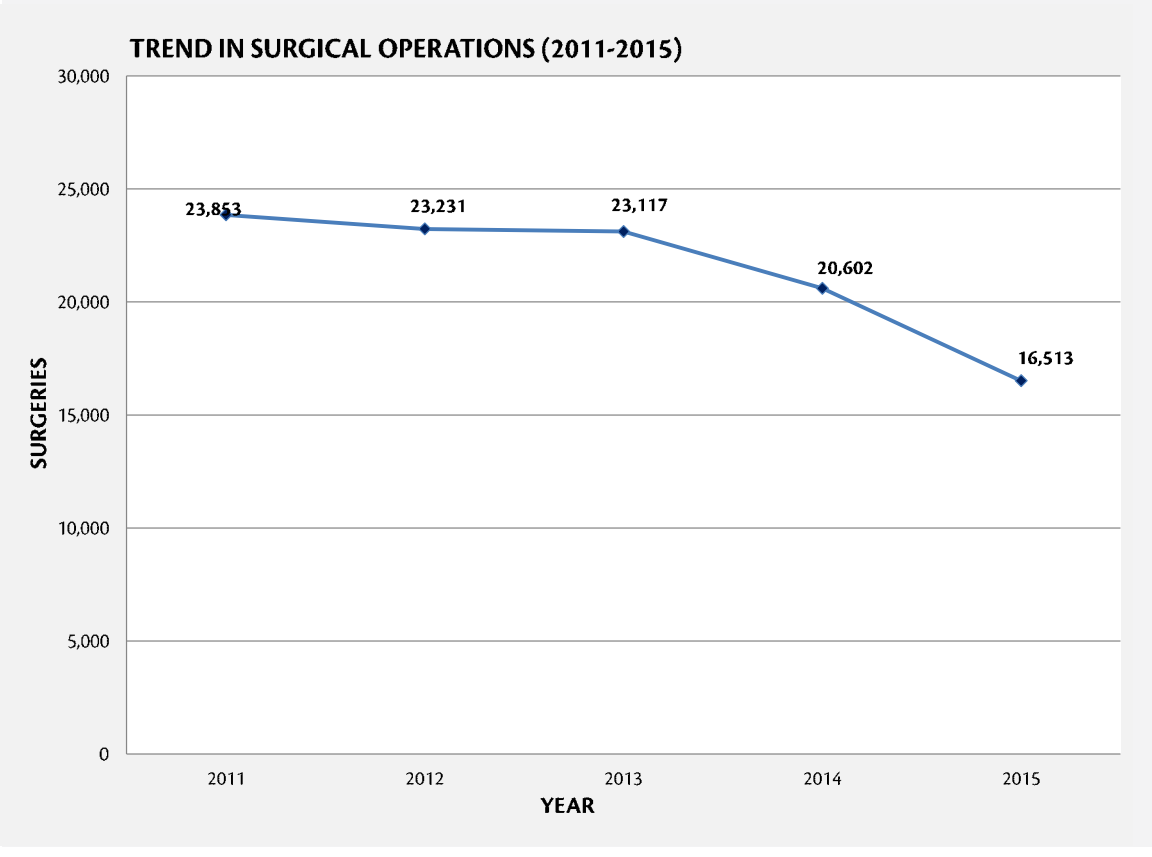
Eclampsia / Pre-Eclampsia, Preterm/Low Birth Weight, and Abortion and its complications were the leading causes of admissions for the year 2015. Diabetes, Peripartum Haemorrhage and Stroke (CVA) recorded the least causes of admissions among the top ten. The figure below shows the top ten causes of admissions in the hospital.

Surgical Services in the hospital have been declining since 2011. The expected output for surgical operations (both major and minor) for the year 2015 was 25,015. A total of 16,513 surgeries were done during the period; representing a shortfall of its target by 34.0% and 19.9% decline per the previous year's figure. There has been a general decline in surgical operations since 2011 by 30.8% as compared to the current year. Details are presented in table 6.

Table 6: *Top Ten Causes of Admissions*

DISEASE	TOTAL 2015	RANK 2015	RANK 2014
Eclampsia/ pre-eclampsia	1,445	1	1
Preterm/ low birth weight	1,091	2	2
Abortion and it's complications	609	3	3
Neonatal Sepsis	606	4	5
Neonatal Jaundice	557	5	10
Birth Asphyxia	550	6	0
Diseases of the Heart	487	7	8
Diabetes	454	8	7
Peripartum Haemorrhage	423	9	9
Stroke (CVA	369	10	4

Figure 8: *Trend in Surgical Operations Performed*



Comparatively, general theatre utilization in the hospital went down in 2015. With the exception of the Eye and A&E Special Ward theatres that recorded marginal increase; all the others registered a decline. Main Theatre went down from 39.3% to 35.3%, A1 Theatre 59.8% to 51.4% and Polyclinic Theatre from 12.4% to 11.5%. This information is represented in the table 7.

Table 7: *Theatres Service Utilization, 2015*

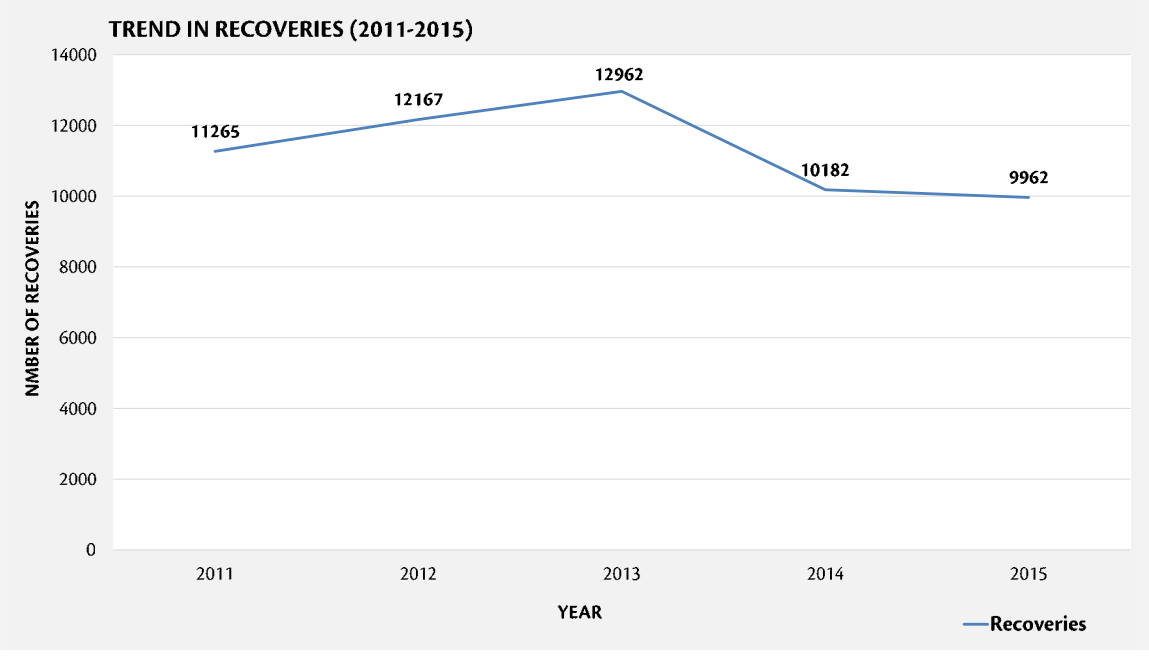
THEATRE	TOTAL CASES DONE FOR THE YEAR	AVERAGE NUMBER OF HOURS PER CASE	TOTAL HOURS FOR THE YEAR FOR ALL CASES	OPTIMAL HOURS FOR THE YEAR	% UTILIZATION 2014	% UTILIZATION 2015
Main Theatre (5-op. rooms)	**3,088**	**2.5**	**7,720**	**21,900**	**39.3**	**35.3**
Polyclinic Theatre (2-op. rooms)	**1,010**	**1**	**1,010**	**8,760**	**12.4**	**11.5**
A&E Theatre (4 – op. rooms)	**2,714**	**2.5**	**6,785**	**17,520**	**38.9**	**38.7**
A&E Special Ward Theatre.	**388**	**1**	**388**	**4,380**	**8.6**	**8.8**
A1 Theatre (2 – op. rooms)	**4,506**	**1**	**4,506**	**8,760**	**59.8**	**51.4**
Eye Theatre (3 – op. rooms)	**1,761**	**1**	**1,761**	**13,140**	**8.2**	**13.4**

CRITICAL CARE AND RECOVERIES

During the period under review, some doctors undertook various training programs in the form of conferences and workshops. Two (2) nurses had training in Ophthalmic Nursing at the School of Ophthalmology, Korle Bu. In the year 2015, ten (10) staff attended the annual update in Anaesthesia conference which was organized by KATH and five (5) staff also attended update conference in Koforidua. Three (3) doctors as well attended refresher course in Anaesthesia organized by WACS in Accra. Three (3) staff were sponsored for Physician Assistantship in Anaesthesia at KNUST and also three (3) staff were sponsored for anaesthesia course. Two (2) nurses were sponsored for critical care nursing.

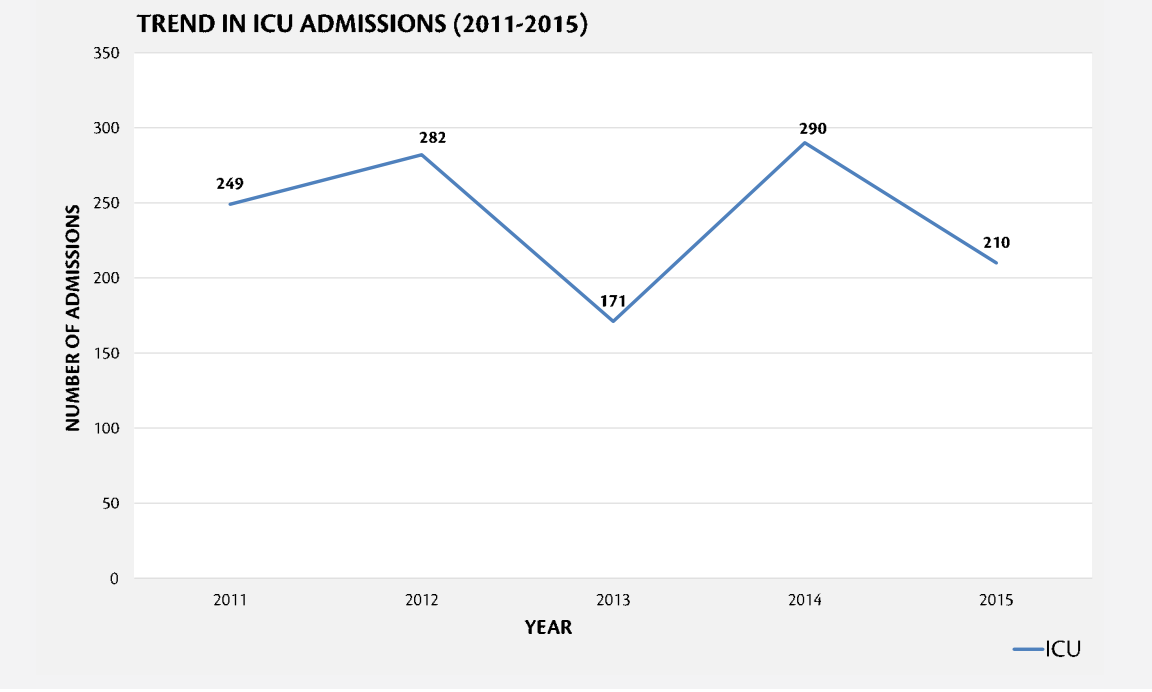
From Figure 9 below, recoveries in the hospital have been declining since 2014. Again, in 2015, there was a marginal decline by 2.16% compared to 2014.

Figure 9: *Trend in Recoveries*



From Figure 10 below, the trend in admissions at ICU in the hospital has fluctuated over the five year period. However, in 2015, ICU admissions declined by 27.6% compared to 2014.

Figure 10: *Trend in ICU Admissions*



◇ *Priority Activity 2*

SUSTAIN ACTIVITIES AIMED AT REDUCING MORTALITY, (ESPECIALLY MATERNAL MORTALITY) AND IMPROVING GENERAL CARE OUTCOMES

IMPROVING MORTALITY AUDITING AND QUALITY ASSURANCE ACTIVITIES

In 2015, management of the hospital instituted number of measures to reduce mortality, especially maternal deaths. Among other things, Mortality Audit Committees audited all deaths, which occurred during the period.

Fourteen (14) midwives and nurses were given approval to pursue further training. The Obstetrics & Gynaecology Directorate had three (3) training sessions with visiting Professors on Uro-gynaecology. All house officers in Obstetrics and Gynaecology were trained in Comprehensive Abortion Care (CAC). To reduce neonatal deaths, the hospital intensified its neonatal mortality meetings. There were also neonatal support services given to Suntreso and Kumasi-South Hospitals.

Again Educational and Radio/TV programmes on child health issues were organized in order to reduce mortality. In absolute terms, the hospital recorded a decrease of 5.6% in maternal mortality during the period under review, and this is partly attributed to the interventions carried out during the year. Details of these are discussed below.

MORTALITY

Mortality ratio is one of the key measures of quality performance of hospitals; Management continues to identify factors associated with mortality and develop strategies that can be used to monitor performance in safety and quality of care in the hospital.

Figure 11: *Trend in Total Mortality Rate (2011-2015)*

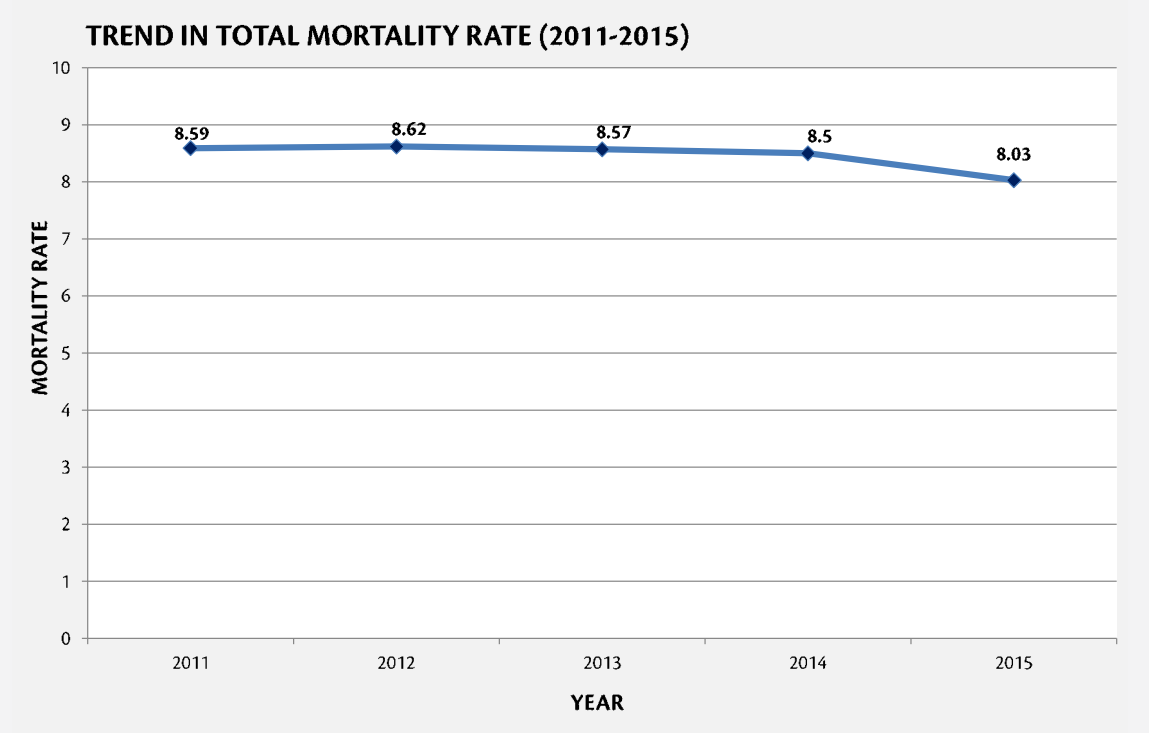


Table 8: *Top Ten Causes of Death 2015*

DISEASE	TOTALS IN 2015	POSITION IN 2015	POSITION IN 2014
Preterm/low birth weight	275	1	1
CVA (stroke)	233	2	2
Birth asphyxia	186	3	3
HIV/AIDS	163	4	4
Renal failure	129	5	5
Diseases of liver	124	6	6
Diabetes Mellitus	105	7	8
Malignant Neoplasms	83	8	7
Cardiovascular Disease	74	9	10
Neonatal Jaundice	46	10	0

Preterm/Low Birth weight and CVA (Stroke) were the leading causes of death which recorded a total of 275 and 233 cases. Neonatal Jaundice was the least cause of death among the top ten causes of deaths recording a total of 46 cases in 2015.

SUPERVISED DELIVERY

Amidst the challenge of inadequate space for skilled delivery services, the hospital managed to supervise 10,031 deliveries, 8.8% short of the targeted output of 11,000. There was also a decrease of 3.8% in the number of deliveries recorded as compared to the 2014 performance of 11,188. The figure below depicts the falling trend of supervised deliveries in the hospital from 2011 to 2015.

MATERNAL MORTALITY

During the year, 102 maternal deaths were recorded. Workshops were organised for doctors on maternal mortality, morbidity as well as perinatal mortality and morbidity. The major contributing factor to maternal deaths still remains the late referral of patients to the hospital. Most of the referred cases came in very late, to the extent that little or nothing could be done for those patients. Maternal mortality rate is one of the quality assessment benchmarks of a hospital's performance. From the figure below, maternal mortality rate decreased between the periods 2012 to 2013. However, there has been a steady decline since 2013 with 2015 registering 1,056.9 per 100,000 live births. Figure 13 below depicts a visual overview of this trend.

Figure 12: *Trend in Deliveries (2011-2015)*

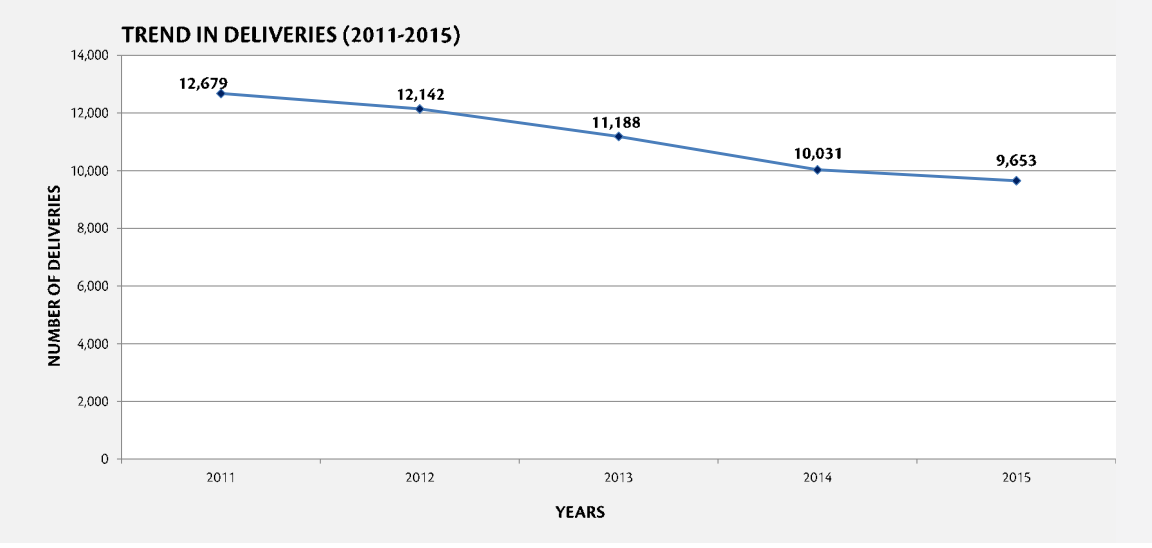
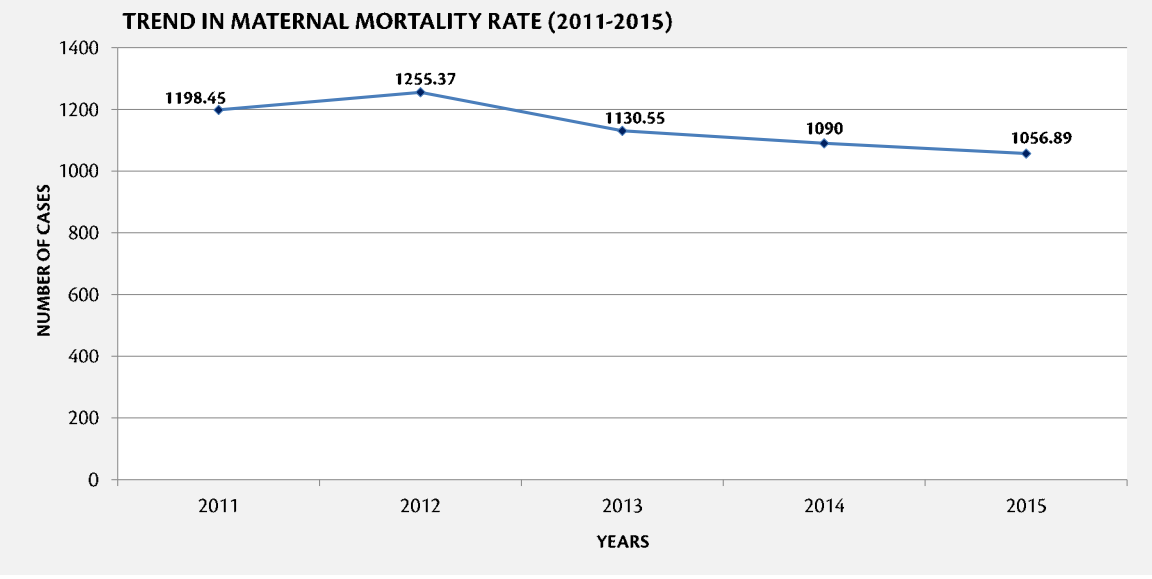


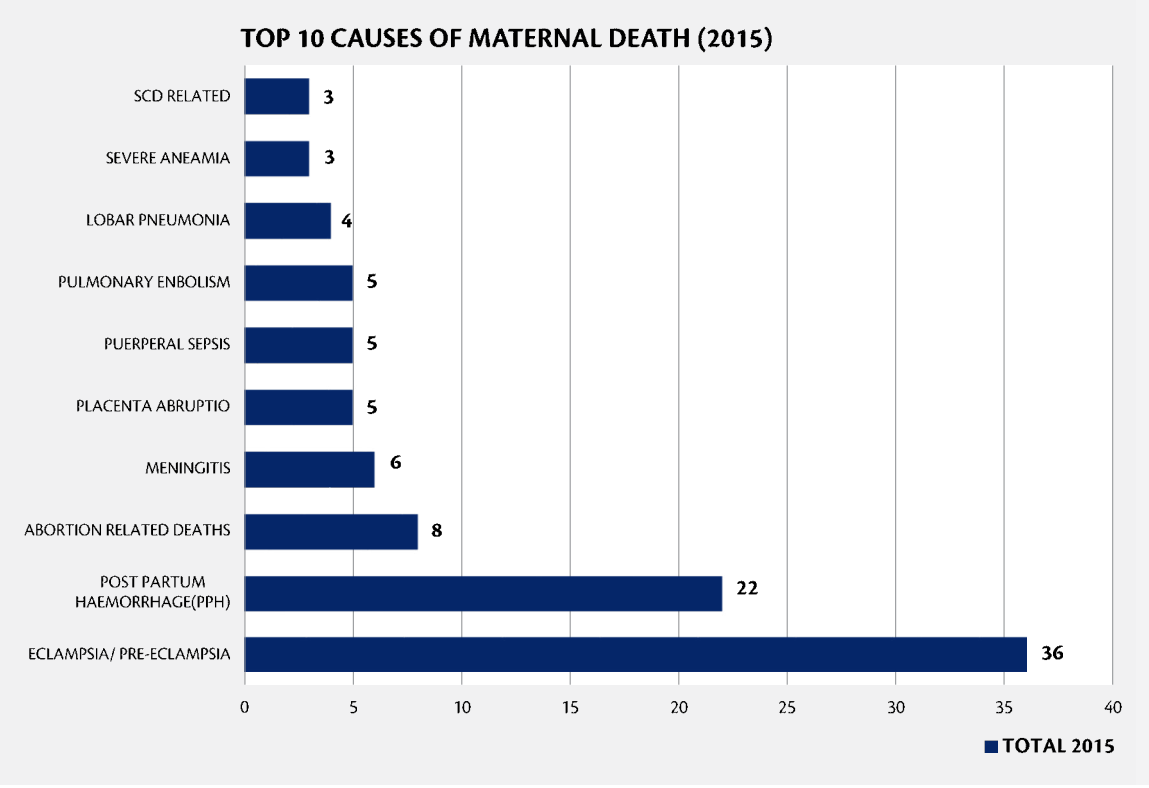
Figure 13: *Trend in Maternal Mortality Rate (2011-2015) per 100,000 live births*



TOP TEN CAUSES OF MATERNAL MORTALITY

The figure below shows the top ten causes of maternal deaths in the hospital.

Figure 14: *Top Ten Causes of Maternal Deaths, 2015*



Eclampsia/Pre-Eclampsia and Post-partum haemorrhage (PPH) were the leading causes of maternal deaths in the hospital for 2015. This has been the trend in the hospital for the last few years. On the other hand, severe sickle cell related diseases (SCD) and severe anaemia recorded the least among the top ten causes of maternal death in the year 2015.

◇ *Priority Activity 3*

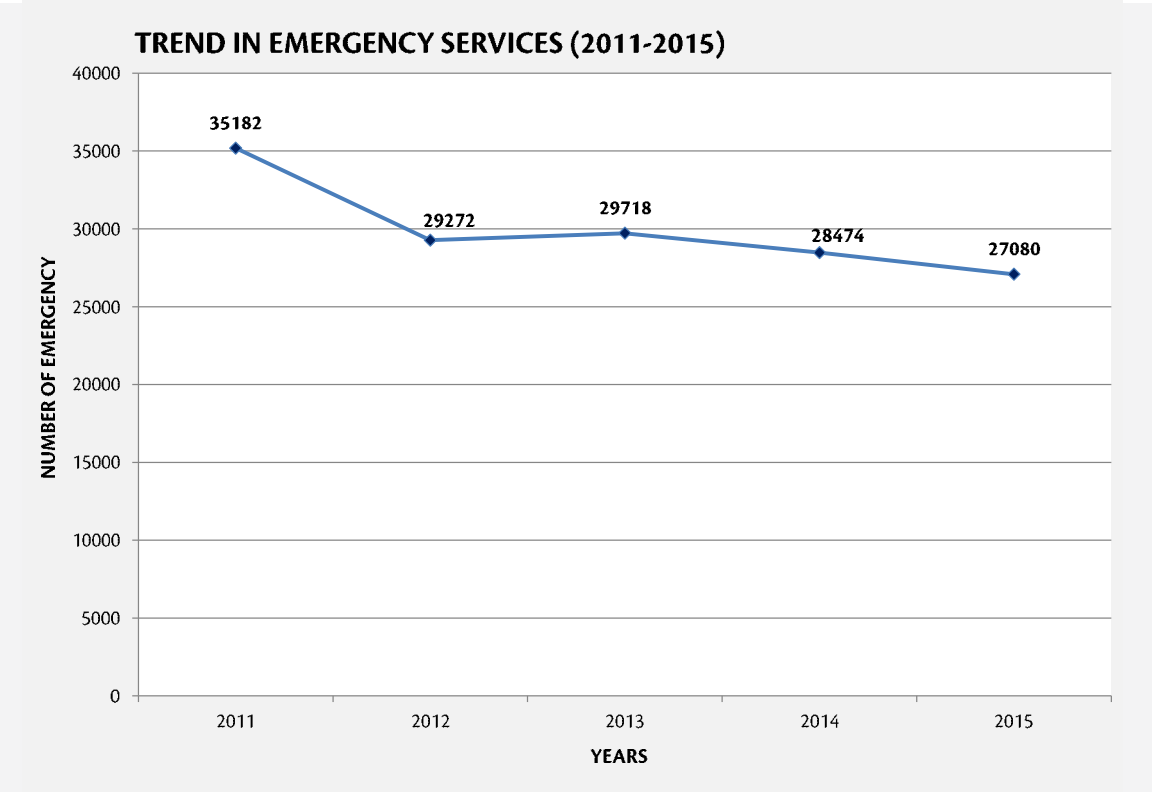
CONTINUE TO SUPPORT EMERGENCY SERVICES

During the year 2015, thirty-nine (39) doctors were trained in Advanced Emergency Trauma Course (AETC). Two hundred and forty-three (243) nurses were also trained in fluid and electrolyte balance, nursing management of head injury, triaging, blood transfusion etc.

EMERGENCY SERVICES UTILIZATION

Paediatric Emergency Unit (PEU) and Emergency Medicine Directorate are the two main entries for emergency cases, with a total bed capacity of 257. During the year, 27,080 emergencies were seen in the hospital. This figure represents a 4.9% decrease over the 2014 performance. Generally, emergency services utilisation in the hospital has been declining since. The year under review also saw a decline. The figure below shows the trend in emergency services utilisation.

Figure 15: *Trend in Emergency Services Utilization (2011-2015)*



◇ *Priority Activity 4*

CONTINUE THE PROVISION OF ADVANCED DIAGNOSTIC SERVICES

DIAGNOSTICS SERVICES

The hospital rendered diagnostic investigations in a reduced Turn Around Time (TAT) for retrieval of laboratory results in all the departments. During the period, infection prevention training was organized for all mortuary attendants. Ten (10) Radiographers and Biomedical Scientists attended continuous professional development programmes. In order to enhance service provision in the hospital, obsolete X-ray machines at the main hospital block and polyclinic x-ray section were replaced. Planned preventive maintenance was also undertaken at all the diagnostic centres. Fridge number 6 was also converted to a walk-in cold room. The figure below shows the trend in Diagnostic services utilization from 2011-2015.

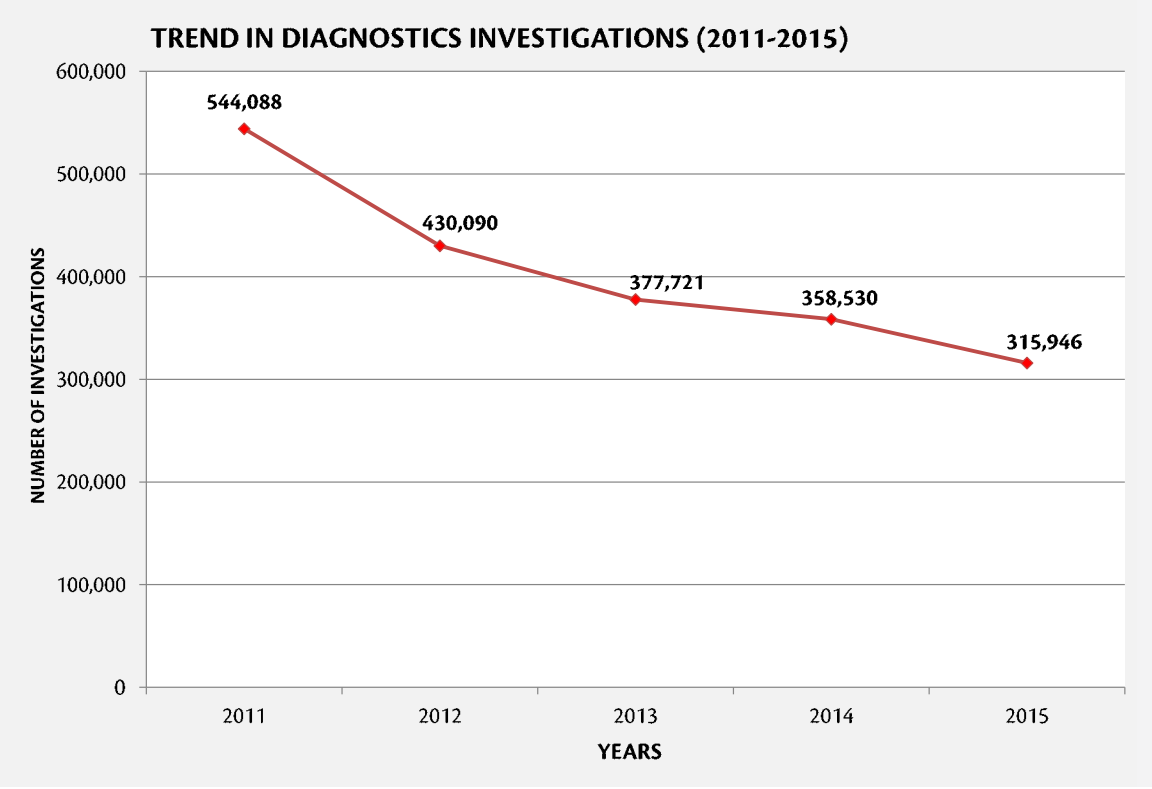
The trend in diagnostic investigation for the last five years has been fairly consistent. From 2011 to 2015, there has been a decline in output throughout the successive years. The number of diagnostic investigations conducted in the year 2015 was 315,946. This output fell short of the year's target of 454,178 by 30.0%. Also, there was a decrease of 11.9% as against the performance of the previous year (2014) of 358,530.

◇ *Priority Activity 5*

CONDUCT OPERATIONAL RESEARCH INTO EMERGING DISEASES

During the period under review, a number of research activities were completed and others were ongoing in the hospital. However, the hospital's focus now is on implementation of the research results for organizational development

Figure 16: *Trend in Diagnostic Investigations (2011-2015)*



ONGOING RESEARCH

The following research activities were on-going during the period:

- Trauma Emergency registry
- Clinical evaluation of restoration of non-carious cervical tooth surface lesions with tooth coloured restorative material among patients attending Komfo Anokye Teaching Hospital; a three month review
- Patient dose relationship with exposure parameters in chest X-ray examination in KATH and Agogo Presbyterian Hospital
- Survey on the Impact of Free Medical Care Scheme
- Interpositional variation in applicator position of patients undergoing low dose rate (LDR) brachytherapy.
- Restructuring clinical care activities at MBU and PEU
- Taking the leadership role in Paediatric research
- Typhoid perforation
- Breast Cancer
- Anorectal Malformations
- Cleft lip and palate problems
- Buruli Ulcer
- Strangulated hernias
- Appendicitis
- Sigmoid Volvulus
- Thyroid cancers
- Contractures
- Burns

COMPLETED RESEARCH

The following research works were completed during the year 2015:

- Alcohol and Injury
- Lacerations
- Trends in Emergency Department visits and mental health conditions
- Auto transplantation of impacted maxillary canine into the occlusal setting of the maxillary arch A retrospective study of

Ludwig's Angina at the Maxillofacial unit of KATH

- Routine X-rays for low back pain – is it evidence based?
- Family Medicine Chronic Care clinic. Komfo Anokye Teaching Hospital; Experiences and Challenges
- Availability and use of Long Lasting Insecticidal Nets at Sepe-Buokrom in Kumasi, Ghana. Applied research on construction of multi-leaf collimator to support external beam radiotherapy (EBRT) completed and published

◇ *Priority Activity 6*

ACQUIRE REQUISITE MEDICAL EQUIPMENT TO IMPROVE SERVICE DELIVERY

During the period under review, the hospital took custody of eight brand new lifts to replace the 20-year old obsolete ones in the old "Gee" blocks.

The hospital with funding from the USAID through the Himalayan Cataract Project (HCP) of the U.S. has installed a 42 kilowatt Solar Power System for the Eye Centre at the cost of 320,000 dollars. By this installation, the Eye Centre can operate 24/7 with power from this solar system without depending upon the national grid.

It is the plan of the hospital to seek further assistance from other development partners towards the installation of additional solar power systems in other parts of the hospital as part of an overall strategy to improve the energy security of the hospital.

The hospital's Dialysis Centre which had virtually collapsed received a major boost with the installation of additional seven new dialysis machines. Five of the machines were procured by the hospital as part of the refurbishment of the centre whilst the other two were donations from the Christian Community Microfinance Company.

During the year under review, the hospital, for the first time in its history procured equipment to start an Electro Encephalography (EEG) services for both adults and children in the Medicine and Child Health Directorates respectively. This development has saved hundreds of patients from travelling to Accra for such services.

The hospital also repaired its faulty oxygen plants to complement the existing two oxygen plants and extended its oxygen pipes to ward D3 stroke unit, D4 ICU and D5 fevers.

◇ *Priority Activity 7*

CONTINUE EFFORTS IN PROVIDING SUPPORT TO DISTRICT AND REGIONAL HOSPITALS IN THE NORTHERN SECTOR OF GHANA, BY WAY OF PROVIDING OUTREACH SERVICES

As a major tertiary care service provider, supporting primary and secondary services has been one of our key objectives. In 2015, management aggressively pursued strategies and activities to achieve a higher impact in clinical outreach. The hospital collaborated with Ghana Health Service Institutions in the Northern sector of Ghana, to screen and perform surgeries and other procedures. The Eye Unit conducted three (3) major offsite outreaches during the year under review to Kintampo, Samreboi and Wenchi. A total of 7,198 people were screened with 575 surgeries performed during the period under review. There was also cancer education and examination for communities and religious institutions by the Oncology directorate. A total of five hundred and fifty (550) people were screened during the outreach. Eleven (11) home visits were also done. Neonatal support services were rendered by the hospital to Suntreso and Kumasi-South Hospitals. Telephonic consults were provided to periphery hospitals. There were several Child Health education programmes on radio and TV.

During the year under review, two rounds of outreaches on maternal and neonatal care were carried out in 20 selected peripheral hospitals. The support rendered to these facilities culminated in strengthening referrals structures between KATH and these facilities.

◇ *Priority Activity 8*

CONTINUE TO IMPROVE PERFORMANCE MONITORING AND PROMOTE FINANCIAL ACCOUNTABILITY & CONTROLS.

During the period under review the Planning, Monitoring and Evaluation Unit of the hospital paid monitoring visits to various directorates and units of the hospital. The purpose was to monitor the implementation of the 2015 approved programmes and plans of these directorates and units. The Audit Unit also undertook financial and compliance monitoring visits to the various directorates and units.

◇ *Priority Activity 9*

EXPANSION OF ONCOLOGY CENTRE TO INCLUDE NUCLEAR MEDICINE TREATMENT AND DIAGNOSTIC UNIT

The Oncology Centre expansion project was awarded on contract at the cost of GH¢958,942.51 by the Ministry of Health. The project forms part of the Ministry's programme to upgrade the two Radiotherapy and Nuclear Medicine centres in Ghana.

QUALITY ASSURANCE ACTIVITIES

4

Quality Assurance is a multi-facet activity that comprises: Infection Prevention and Control, Documentation, Complaints Management System and Audit as indicated in priority activity 8.

The scope of the hospital's quality assurance activities covers the following areas:

- Development and implementation of quality assurance, and infection control systems in all directorates and units.
- Providing support, monitoring and evaluation of clinical activities.
- Support the development of standards of care and protocols to ensure effective and efficient service delivery.
- Management of patients of the hospital.

ACHIEVEMENTS

ONE
Improving infection prevention and control

TWO
Strengthen Quality Assurance

THREE
Improving Customer Care

FOUR
Improving Patient Safety

◇*Achievements for the Year 2015*

1. IMPROVING INFECTION PREVENTION & CONTROL IN THE HOSPITAL, CAPACITY BUILDING

Infection Prevention and Control (IPC) activities were intensified during the year under review. Eight (8) surveys were conducted to monitor Hand hygiene and Waste Management in the year under review. Public education on hand hygiene was conducted during World Hand hygiene day. Again, 10 meetings were held by IPC Committee and IPC Focal people.

TRAINING

One hundred and twenty (120) IPC Focal persons were empowered on IPC issues and trained on how to promote IPC activities in the various wards, Units/Departments.

The Unit submitted proposal to Tropical Health and Education Trust (THET) in partnership with St. George's Health Care Trust (SGHT) to support training activities of 5 hospitals in Ashanti Region on Hand Hygiene, Waste Management and Safe Surgery Initiatives.

2. STRENGTHEN QUALITY ASSURANCE IN ALL DIRECTORATES

Client Satisfaction, Hospital Canteen Services, Hand hygiene audit, Waste management and Patient Movement surveys were conducted. Reports on Patient Movement Survey were sent to all Directorates/Units.

3. IMPROVING CUSTOMER CARE

Periodic surveys on Client Satisfaction were done at all the service points in the hospital.

4. IMPROVING PATIENT SAFETY

HAND HYGIENE

Four (4) hand hygiene surveys were conducted during the year 2015.

WASTE MANAGEMENT

Four (4) Waste Management surveys were conducted during the year 2015.

◇ *Current Areas of Patient Dissatisfaction*

- Poor communication
- Delay in receiving care/laboratory results/ treatment
- Denial of care
- Staff attitudes

Table 9: *Summary Table for Patient (Client) Satisfaction Survey for the Year 2015*

FINDINGS	MODAL RESPONSE (%) RESPONDENTS/ CLIENTS OPINION
Collection of card/folder	15-30mins (63%)
Time spent before seeing the doctor	30mins-1hour (45.8%) **Too long**
How comfortable was the transportation	Comfortable (51.7%)
Staff attitude towards clients	Good (51.5%)
Overall satisfaction of the patients	Satisfied (65%)

DOMESTIC SERVICES

5

Domestic Services Directorate comprises of CSSD, Laundry, Catering, and Transport units. In the year 2015, various activities were put in place to improve services in the directorate. The total staff strength of the directorate is 160.

Some of the major activities which were carried out during the year include vehicle servicing, preparation and supply of sterilised packs and provision of catering services.

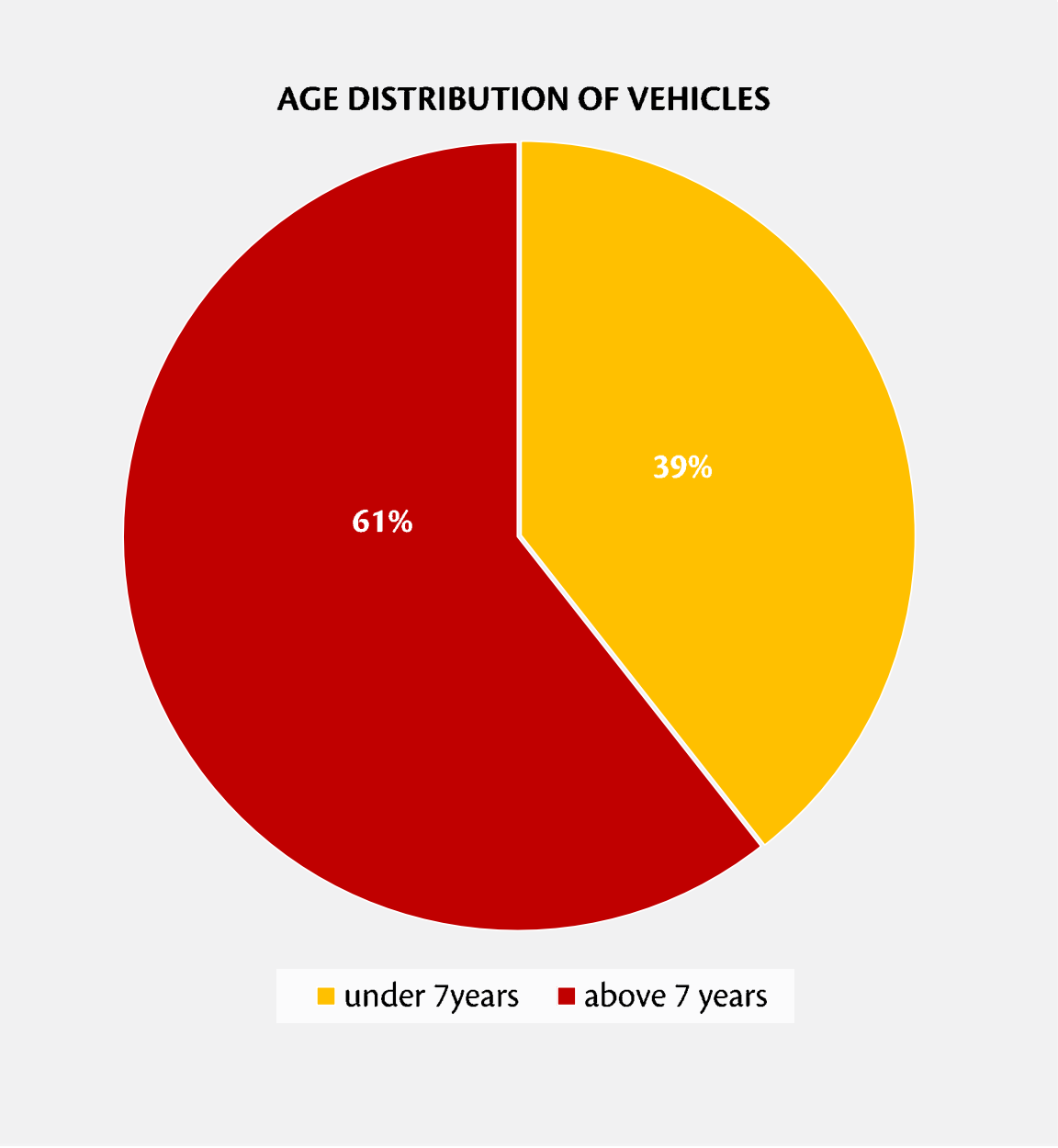
Table 10: Number and Conditions of Available Vehicle

ACTIVITY INDICATOR	2011 ACTUAL	2012 ACTUAL	2013 ACTUAL	2014 ACTUAL	2015 ACTUAL
Number of Vehicles/ Tractors	29	32	42	42 (11 were auctioned)	33
Serviceable Vehicles	29	29	30	26	29
Cost of fuel	283,204.50	234,170.00	219,119.41	177,866	203,360
Cost per KM	0.61	0.67	0.62	0.62	0.75
Total Km Travelled	467,092	350,915	351,211	283,598.46	270,648
Maintenance Cost	-	-	67,739.70	53,683.34	84,627.28

The number of vehicles and tractors at the beginning of the year was 33. Two Nissan Navarra pick-ups were procured in 2015.

Twenty (20) representing 61.0% of the fleet of vehicles were above 7 years whilst thirteen (13) representing 39.0% of the vehicles were under 7 years. This information is presented in figure 17.

Figure 17: *Age distribution of vehicles*



TECHNICAL SERVICES

6

The objectives of the Technical Service Directorate were focused on Planned Preventive Maintenance and coordination of activities for new projects as indicated in Priority activity 10.

◇ *Infrastructural and Equipment Development*

In the year under review, substantial number of infrastructural and equipment works were carried out in the hospital. These included the completion of renovation works at the Main Kitchen, completion of a 300 body capacity walk-in mortuary and the repair of an additional oxygen plant which is currently working in addition to the two existing plants.

Table 11 and 12 give a summary of the state of infrastructural and equipment development in the hospital in 2015.

Table 11: *Infrastructural Development*

PLANNED ACTIVITY	EXPECTED OUTPUT	END OF YEAR RESULT
Construction of 2Nr septic tank at staff Quarters –Children hospital	100% Completion	100% completion achieved
Renovation work at former Consulting Room 10 and old Dental	100% Completion	70% Work done
Renovation works at Main Kitchen	100%	100% of work done
Construction of 1Nr 40 flats at Bantama Nurses Qtrs	Completion of tendering process	Re-tendering process ongoing
Drilling and mechanization of borehole at Asuoyeboah SSNIT flat, blk 10	100%	100% achieved
Construction of stone pitching behind Eye centre	100%	100% achieved
Construction of Maternity and Children's Block	100%	65% (work halted due to lack of funds and delay in procuring sub-contractors)
Reactivation and completion of office block	50%	35% (work halted due to lack of funds)
Expansion/Alteration works for installation of LINAC Machine at KATH	100%	50%

Table 12: *Status of Equipment*

EQUIPMENT	STATUS
Mortuary Cold Room	A 300 body capacity walk-in mortuary has been constructed and currently in use. Tender process for the second phase has also been completed.
Lifts	Eight (8) new lifts for the old blocks have been delivered to site and civil works for installation is underway
Oxygen Plant	Repair of an additional oxygen plant from Korle-Bu Completed and plant is working in addition to the two existing plants
Tumblers dryers	Tender process for the procurement of an Electric tumble dryer completed awaiting supply
Generators	All five standby generators are working

FINANCIAL PERFOMANCE

7

This chapter provides the general overview of the financial activities as well as the financial performance of the hospital for the year 2015.

◇Sources of Funding

Basically, the operations of the hospital are financed by Internally Generated Funds (IGF), subventions from the Government of Ghana (GOG) and Sector Budgetary Support (SBS).

GOVERNMENT OF GHANA SUBVENTIONS (GOG)

In the year under review, the hospital received subventions in the form of employee compensation from the Government of Ghana. However, no funds were allocated for Administration and Investment, Fellowships, Projects and other funds by the government of Ghana.

INTERNALLY GENERATED FUNDS (IGF)

The hospital generated a total net revenue of GH¢51,774,979.73 in 2015. The table below is a summary of the revenue generated in the year as against that of 2014.

Table 13: *Internally Generated Fund (IGF) Revenue Generated*

INTERNALLY GENERATED FUND (IGF)			
REVENUE GENERATED			
ITEM	2014 ACTUAL (GHC)	2015 ACTUAL (GHC)	% CHANGE
Service	29,760,763.39	41,608,079.71	40.0%
Medicines (Drugs)	7,485,078.76	9,545,962.68	28.0%
Others	1,354,409.43	620,937.34	-54.0%
TOTAL	**38,600,251.58**	**51,774,979.73**	**34.1%**

The service revenue generated increased by 40.0% over the previous year's figure and also the revenue generated from pharmaceutical services was 28.0% above the 2014 performance. The total revenue generated in 2015 was 34% above the total revenue generated in 2014.

◇ *Classification of IGF Revenue*

The classification of total revenue generated in 2015 by mode of receipt is shown below as against 2014.

Table 14: *Classification of IGF Revenue*

IGF REVENUE BY MODE OF RECEIPT				
MODE OF RECEIPT	2014 (GHC)	2015 (GHC)	% CHANGE	% SHARE OF TOTAL REVENUE
CASH	20,205,825.48	28,852,136.83	43.0%	56.0%
NHIS	17,477,598.74	22,301,905.56	28.0%	43.0%
OTHERS	916,827.36	620,937.34	-32.0%	1.0%
TOTAL	**38,600,251.58**	**51,774,979.73**	**34.0%**	**100%**

Cash collection for the year increased by 43.0% over that of last year, whilst that of NHIS increased by 28.0%. The increase in cash collection over last year was mainly due to the review of the charges. The cash component constituted 56.0%, Health Insurance revenue was 43.0% and others making 1.0% of the total revenue generated.

Table 15: *IGF Expenditure Budget Execution 2015*

EXPENDITURE	BUDGET (GHC)	ACTUAL (GHC)	% VARIANCE
Compensation	7,521,056.20	11,212,248.11	**(49.1%)**
Goods & Services	33,211,918.72	37,959,434.25	**(14.3%)**
Assets	4,202,934.80	1,777,513.40	**57.7%**
TOTAL	**44,935,909.72**	**50,949,195.76**	**(13.4%)**

In the year 2015, a total expenditure of **GH¢50,949,195.76** was incurred against budgeted expenditure of **GH¢44,935,909.72**, representing 13.4% above the budgeted expenditure.

Expenditure by economic classifications, actual 2015 expenditure exceeded the budgeted figures by 49.1% and 14.3% for Compensation of employees and Goods & Services respectively. However, 57.7% of the budgeted expenditure for Assets were incurred.

In sum, the actual total expenditure incurred in 2015 exceeded the budgeted figure for the period by 13.4%.

◇ Summary of Directorates Financial (IGF) Performance

The table below gives the summary of the IGF revenue generated and expenditure incurred by the revenue generating Directorates/Unit in the year under review:

Table 16: *Summary of Directorates financial performance*

NO.	DIRECTORATE/UNIT	REVENUE (GH¢)	EXPENDITURE (GH¢)
1	Anaesthesia & ICU	3,017,024.63	2,423,346.01
2	Child Health	3,219,059.57	3,116,945.01
3	Diagnostics	8,186,352.91	4,339,320.89
4	Ear, Eye, Nose & Throat (EENT)	1,763,618.84	1,900,160.25
5	Emergency Medicine	2,906,751.49	2,965,901.72
6	Family Medicine	1,786,353.72	1,707,257.53
7	Medicine	4,600,161.46	3,933,629.04
8	Obstetrics & Gynaecology	5,465,320.92	5,392,666.66
9	Oral Health	961,701.21	953,626.90
10	Oncology	506,470.22	549,793.79
11	Pharmacy	9,545,962.68	9,497,433.35
12	Surgery	4,646,385.86	4,700,888.35
13	Transfusion Medicine Unit (TMU)	625,721.62	1,018,341.96
14	Trauma & Orthopaedic	3,989,360.39	2,658,713.37

It is worthy to note that, the above expenditure incurred by the listed Directorates/Unit excluded the compensation of mechanised staff.

COLLABORATION AND SUPPORT

8

The Hospital in its quest to provide quality care to its clients collaborates with some organizations and sometimes receives support from certain benevolent individuals and organizations. In 2015, the following organizations were the hospitals major collaborators.

1. **GUANGDONG CARDIOVASCULAR INSTITUTE**

   A group of Surgeons from Guangdong cardiovascular institute, China collaborated with KATH and performed six open heart surgeries and four pacemaker implantations from 1st – 13th December, 2015

2. **GHANA ASSOCIATION FOR THE STUDY OF LIVER AND DIGESTIVE DISEASES**

   The organization collaborated with the Diagnostic Centre and organized a 3-day colonoscopy workshop for Doctors and Nurses from 7th-9th December, 2015

3. **UNIVERSITY OF UTAH**

   The Hospital has been collaborating with the University in the areas of Anaesthesia, Medicine, Trauma, Eye and other disciplines.

4. **HIMALAYAN CATARACT PROJECT (HCP), USA**

   HCP is a USA NGO which has collaborated with the hospital in the eye care services and training for some years now. The major project pursued by the NGO during the year was the installation of solar panels at the Eye Centre. The theatre is now powered by solar energy.

5. **HEALTH VOLUNTEERS OVERSEAS (HVO), USA**

   Collaborates with Trauma & Orthopaedics to offer training and provision of equipment.

6. **INSTITUTE OF GLOBAL ORTHOPAEDICS AND TRAUMATOLOGY (IGOT), USA**

   Collaborate with Trauma & Orthopaedics in the training of residents and research.

COLLABORATION WITH BENEVOLENT ENTITIES

KATH Sometimes Receives Support from Certain Benevolent Individuals and Organizations

7. **AO SEC FOUNDATION**

   Collaborate with Trauma & Orthopaedics in the training of non-operative and basic surgeries.

8. **UNIVERSITY OF MICHIGAN**

   This group collaborates with the hospital in the training of residents and Nurses in Emergency Medicine. There are also collaborations with Breast Cancer Research and Eye.

9. **ORBIS INTERNATIONAL**

   This group collaborates with the hospital in training support, research and the provision of Paediatric Eye care services.

10. **INTERNATIONAL VOLUNTARY UNION OF UROLOGISTS (IVU)**

    This group collaborates with the hospital in organizing training programmes and surgeries in hypospadias and hermaphrodites for Doctors and Nurses in the hospital.

11. **CHILDREN SURGERY INTERNATIONAL (USA)**

    collaborates with the hospital in the area of training and surgeries to cleft lips and palate patients of the hospital.

12. **ASHANTI DEVELOPMENT**

    This group collaborates with the hospital in the area of Disease control and Logistic support.

13. **STARKEY HEARING FOUNDATION**

    Provide hearing aids to patients with hearing disability

14. **UNIVERSITY OF NEBRASKA**

    Collaborate with the EYE Clinic to conduct surgeries and corneal transplant.

15. **MCGILL UNIVERSITY HEALTH CENTER, CANADA & KATH MEDICINE DIRECTORATE**

    Collaboration on TB Study

16. **GEORGIA SOUTHERN UNIVERSITY**

    Conversion of Paper-based Medical Records into Electronic format

17. **NCI-USA & KATH**

    Breast Cancer Study.

18. **ACADEMY OF AMERICAN ORTHOPAEDICS SOCIETY (AAOS)**

    Collaborated with trauma and orthopaedics in the area of training

19. **UK EXTERNAL QUALITY ASSURANCE SCHEME, BIRMINGHAM (BIOCHEMISTRY)**

20. **SIGN FRACTURE CARE INTERNATIONAL**

    Collaborated with trauma and orthopaedics in the area of training

DIRECTORATE OF MEDICINE

The Medicine Directorate is one of the twelve (12) clinical directorates of KATH. It runs fifteen (15) specialized clinics namely; General Internal Medecine, Hypertension, Asthma, Diabetes, HIV, Chest, Psychiatry, Dermatology, Haematology, Neurology, Cardiology, among others.

The directorate operated with staff strength of 428. This comprise of 128 Doctors, 215 Nurses, 12 Pharmacy staff, 1 Accountant and 9 other Accounts staff, 26 Health Care Assistants, 7 Biostatistician, 3 Dieticians, 2 Administrative Staff and 18 Orderlies.

◇*Priority Activity 1*

INCREASE THE RANGE OF SPECIALIST SERVICES

The Directorate made significant effort to enhance its services in 2015. With the exception of GIT, Non DM Endocrine and Rheumatology which recorded increases, all the other clinics performances were below the previous year's performance. Appointment system was widely used at all the Out-Patient Clinics.

OUT – PATIENT SERVICES

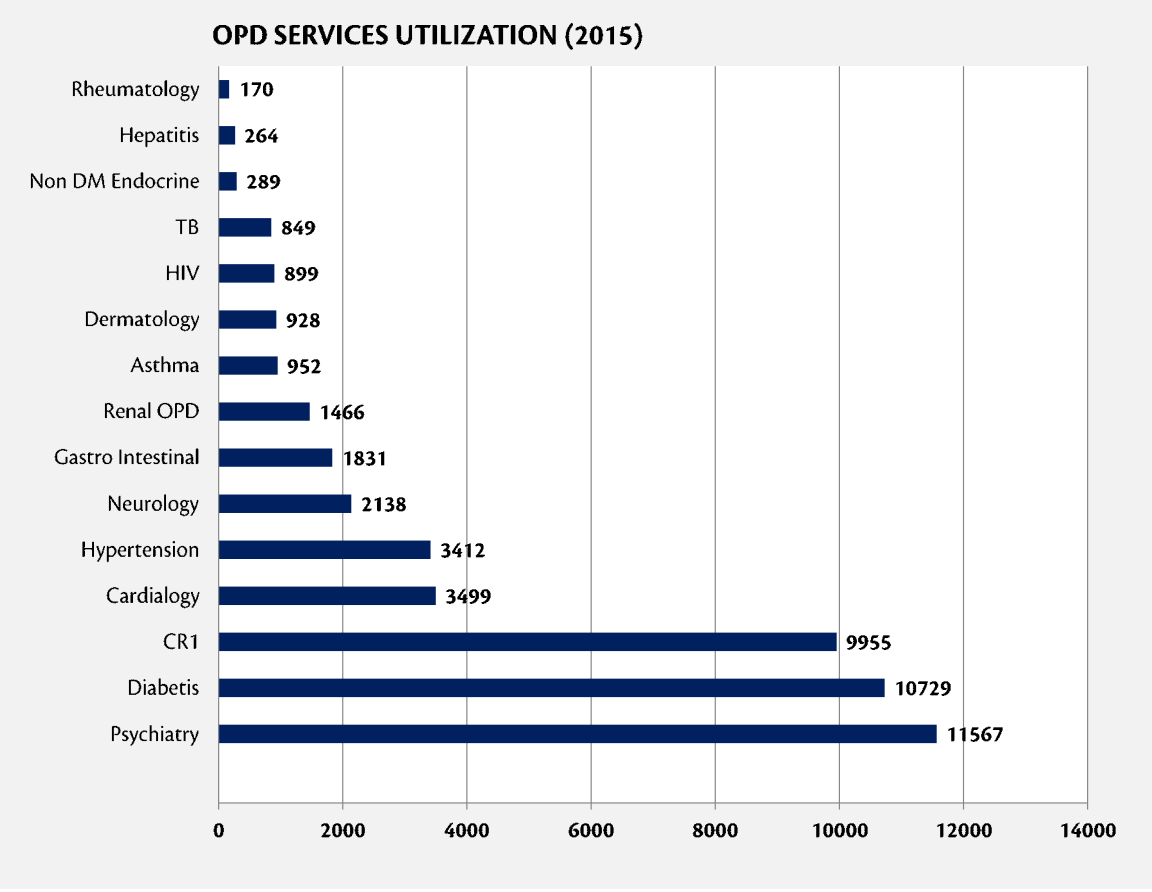
In 2015, a total of 49,893 OPD cases were seen by the directorate. This represents 7.0% reduction in outpatient consultation compared to the previous year. From the figure below, Psychiatry clinic recorded the highest OPD attendance (11,567), followed by Diabetic clinic (10,729) and General Clinic (19,955). Hepatitis Clinic recorded the least OPD attendance of 264. The attendance per clinic is shown in the figure 18.

9

SPECIALIZED CLINICS

Hypertension
Asthma
Diabetes
HIV
Chest
Psychiatry
Dermatology
Haematology
Neurology
Cardiology
AMONG OTHERS

Figure 18: *OPD Service Utilisation by Clinics in Medicine Directorate*



TREND IN OPD SERVICES UTILIZATION BY CLINICS

Table 17 shows the trend in OPD utilization of specialist clinics from 2011-2015.

It can be seen that HIV clinic attendance continues to decrease. This can be attributed partly to the fact that HIV patients have been encouraged to access health care at the periphery. In 2015, most of the clinics in the directorate saw a decline in their attendance. GIT, Non-DM endocrine and Rheumatology however, saw some marginal increases.

Table 17: *Trend in OPD Services Utilization by Clinics*

CLINIC	2011	2012	2013	2014	2015
CR1 (General)	12,235	9,376	8,913	10,454	9,955
Diabetes Mellitus	13,786	12,789	11,612	11,003	10,729
HIV/AIDS	12,647	12,925	3,096	1,029	899
Psychiatry	11,919	11,826	12,543	14,625	11,567
Hypertension	4,789	4,908	4,088	3,806	3,412
Asthma	2,433	1,974	1,140	1,083	952
Cardiology	2,255	3,585	3,358	3,968	3,499
GIT	1,737	2,002	1,887	1,694	1,831
Chest(TB)	1,736	1,321	445	749	849
Renal OPD	1,710	1,326	1,274	1,602	1,466
Neurology	1,399	1,900	2,144	2,292	2,138
Dermatology	929	973	996	941	928
Respiratory	68	10	197	0	0
Hepatitis	448	289	289	0	264
Non.DM Endocrine	244	390	298	268	289
Rheumatology	0	26	120	146	170
Totals	**68,335**	**65,620**	**52,400**	**53,660**	**48,948**

TREND IN AGGREGATED OPD UTILIZATION 2010-2014

Specialist out-patients seen at the directorate has been declining since 2011. However, the year 2015 registered a decrease of 7.2% over the 2014 figure of 53,660. This information is presented in the figure below.

Figure 19: *Trend of OPD Attendance in Medicine Directorate (2011-2015)*

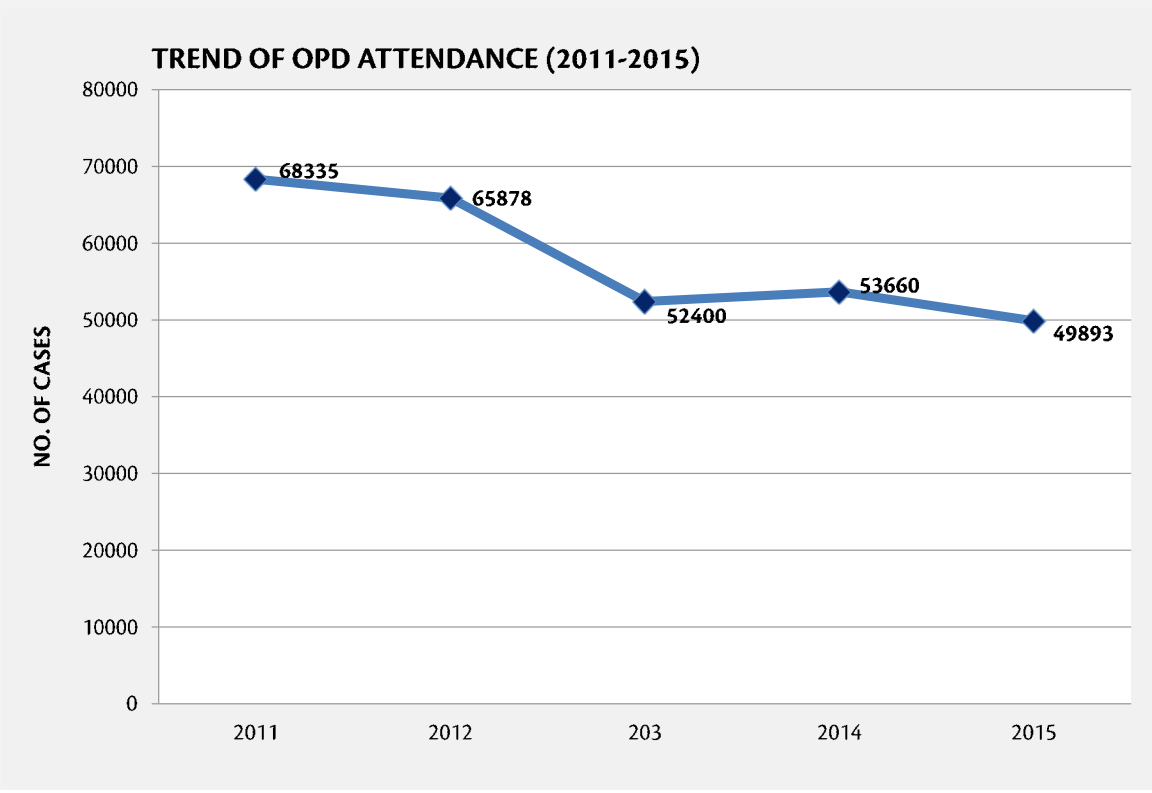


Table 18: *Haemodialysis and Renal OPD*

YEAR	HAEMODIALYSIS		RENAL CLINIC
	NO. OF PATIENTS	NO. OF SESSIONS	
2011	235	1,397	1,710
2012	243	1,332	1,326
2013	538	1,683	1,274
2014	278	1,514	1,602
2015	163	839	1,466

DIALYSIS SERVICES

Dialysis services provided during the period declined from 278 to 163 representing a 41.4% decrease compared to the 2014 performance. In 2015, a total of 839 dialysis sessions were performed. This represents 44.6% decrease compared to the previous year's performance. Renal OPD cases recorded for the period under review decreased from 1,602 to 1,466. Table 18 presents the breakdown of sessions rendered for the past five years.

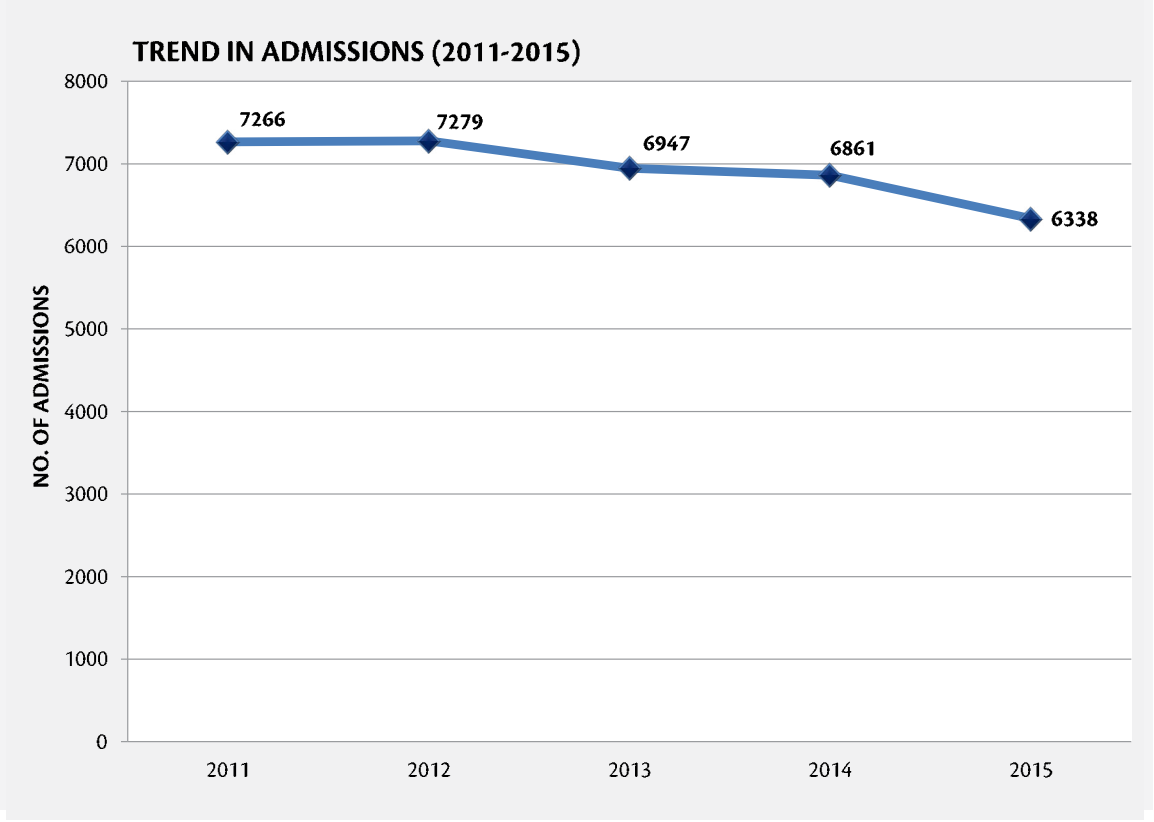
IN-PATIENT SERVICES

The directorate has seven (7) wards with a bed complement of 211. Turnover per bed for the year was 28.4 with bed occupancy of 77.8%. The average length of stay increased from 9 to 10 days.

TREND IN ADMISSIONS 2011 – 2015

The figure below indicates the trend of In-Patient Services at the Directorate of Medicine from 2011– 2015.

Figure 20: *Trend in Admissions in Medicine Directorate (2011-2015)*



The admissions trend in the directorate has been inconsistent between 2011 and 2012. The year 2013 and 2014 saw decreases in admissions. The year under review saw a decrease of 7.6% in admissions at the directorate. The major causes of admission were Disease of the heart, Diabetes Mellitus, CVA/Stroke. The top 10 causes of admissions are shown in the table 19.

Table 19: *Top Ten Causes of Admissions in Medicine Directorate (2015)*

NO.	DIAGNOSIS	NO. OF CASES
1	Diseases of the Heart	487
2	Diabetes mellitus	454
3	CVA/Stroke	369
4	Renal Failure	275
5	HIV/AIDS	190
6	Iron deficiency Anaemia	148
7	Diseases of the liver	138
8	Pneumonia & Influenza	125
9	Malignant Neoplasm	92
10	Meningitis	24

◇ *Priority Activity 2*

SUSTAIN ACTIVITIES AIMED AT REDUCING MORTALITY, ESPECIALLY MATERNAL MORTALITY

Mortality audit and Quality Assurance (QA) activities were strengthened. Weekly clinical meetings were organized and technical heads team meetings were also held during the year. Standard protocols were enforced as part of quality assurance measures. However, during the year under review, mortality rate increased marginally from 23.4% to 24.3%.

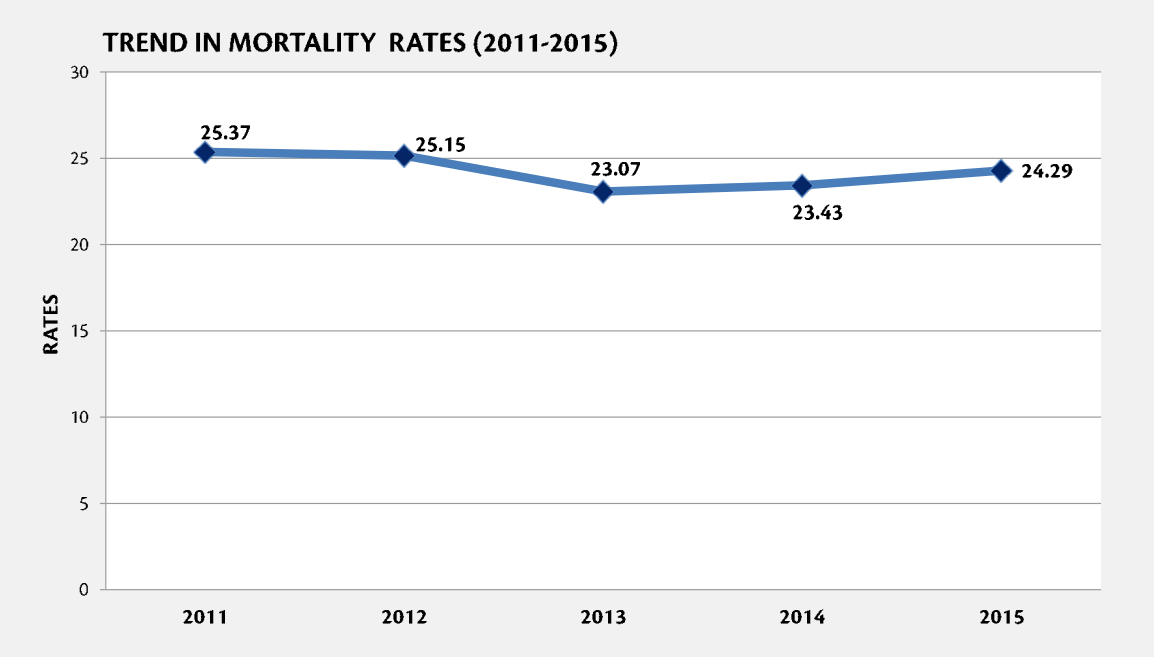
The leading cause of death in the directorate in 2015 was Malignant Neoplasm with 90.00% of those admitted dying, followed by Disease of the liver (89.86%) with Iron Deficiency Anaemia (10.81%) recording the least.

◇ *Priority Activity 4*

CONTINUE THE PROVISION OF ADVANCED DIAGNOSTIC SERVICES

Diagnostic services recorded in the year decreased by 17.04% compared to the 2014 performance. A total of 2,094 diagnostics investigations were successfully carried out during the year under review. The figure below shows the breakdown in diagnostic investigations for the past five years.

Figure 21: *Trend in Mortality Rates in Medicine Directorate (2011-2015)*



Mortality in the Directorate has been declining from 2011 to 2013 but increased in 2014 and 2015 as indicated in the figure above. The highest death rate of 25.4% in the last five years was recorded in 2011.

TOP TEN PROPORTION OF DEATHS AS A PERCENTAGE OF ADMISSIONS

A summary of the top ten Proportions of Deaths as a Percentage of admissions in 2015 is depicted below. (*figure* 22).

Generally, the five year trend shows a decline in performance of the diagnostic investigations carried out over the period with the exception of ECG which recorded an increase. Colonoscopy and spirometry were introduced during the year under review.

Figure 22: *Proportion of deaths as a percentage of admissions in Medicine Directorate (2011 – 2015)*

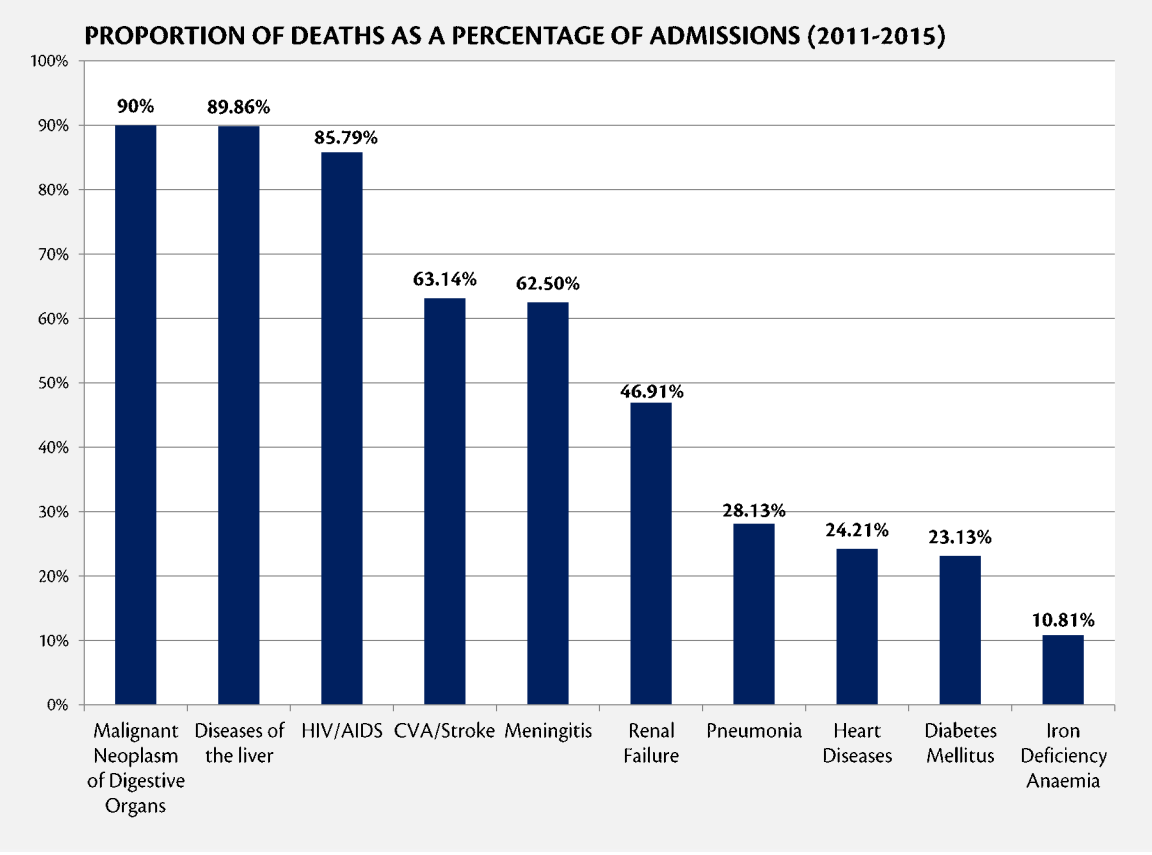
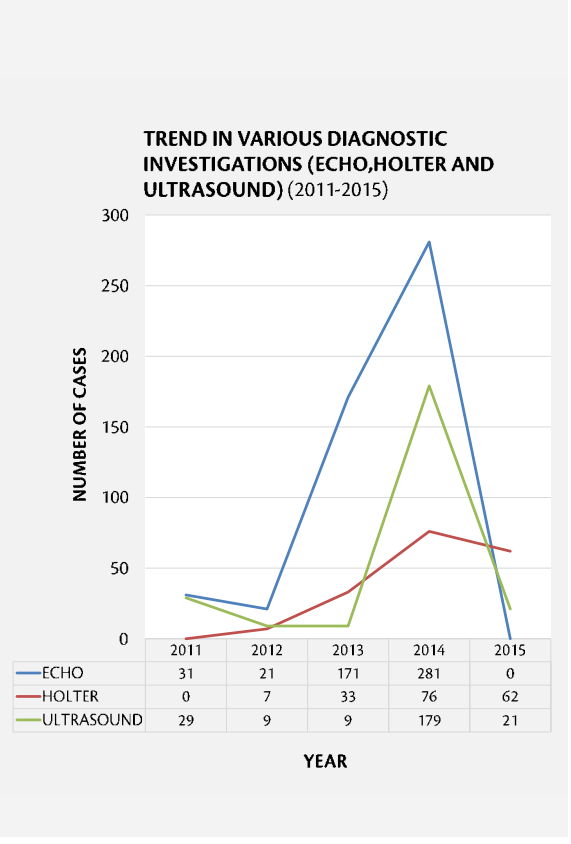
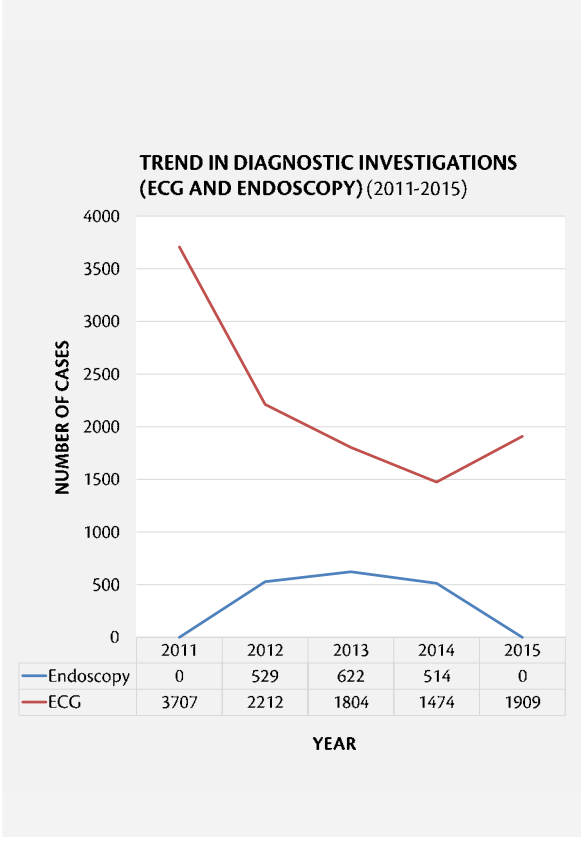


Figure 23: *Trend in various Diagnostic Investigations in Medicine Directorate (2011-2015)*





DIRECTORATE OF SURGERY

10

The Directorate of Surgery is one of the clinical directorates in Komfo Anokye Teaching Hospital which provides specialist surgical care. The sub-specialty areas of the directorate are;

1. General surgery
2. Cardio Thoracic and Vascular Surgery
3. Neurosurgery
4. Urology
5. Plastics, Reconstructive & Burns Surgery
6. Paediatric surgery.

The various sub-specialty areas run sub-specialty clinics. There is also a Breast Care Centre in the directorate dedicated to clinical services for breast-related disease conditions.

SUB-SPECIALITY AREAS

ONE
General Surgery

TWO
Cardio Thoracic and Vascular Surgery

THREE
Neurosurgery

FOUR
Urology

FIVE
Plastics, Reconstructive and Burns Surgery

SIX
Paediatric Surgery

◇*Priority Activity 1*

INCREASE THE RANGE OF SPECIALIST SERVICES

In the year 2015, the directorate experienced a reduction in almost all clinical indicators. The detailed performances by the various clinics are catalogued below.

OUT PATIENT SERVICES

In the year under review, a total of 27,835 patients were seen at the various clinics in the directorate. This was 4,165 less than the projected 32,000 in 2015. For the year under review, General Surgery recorded the highest OPD attendance (7,055) with Paediatric Surgery recording the least (2,752).

TREND ANALYSIS OF OPD UTILIZATION BY CLINICS (2011 – 2015)

The Breast Care Centre has a continuous decline in out-patient numbers over the five year period. Figure 25 shows the trend of surgical clinics over the period.

Figure 24: *OPD services by Clinics in Surgery Directorate (2015)*

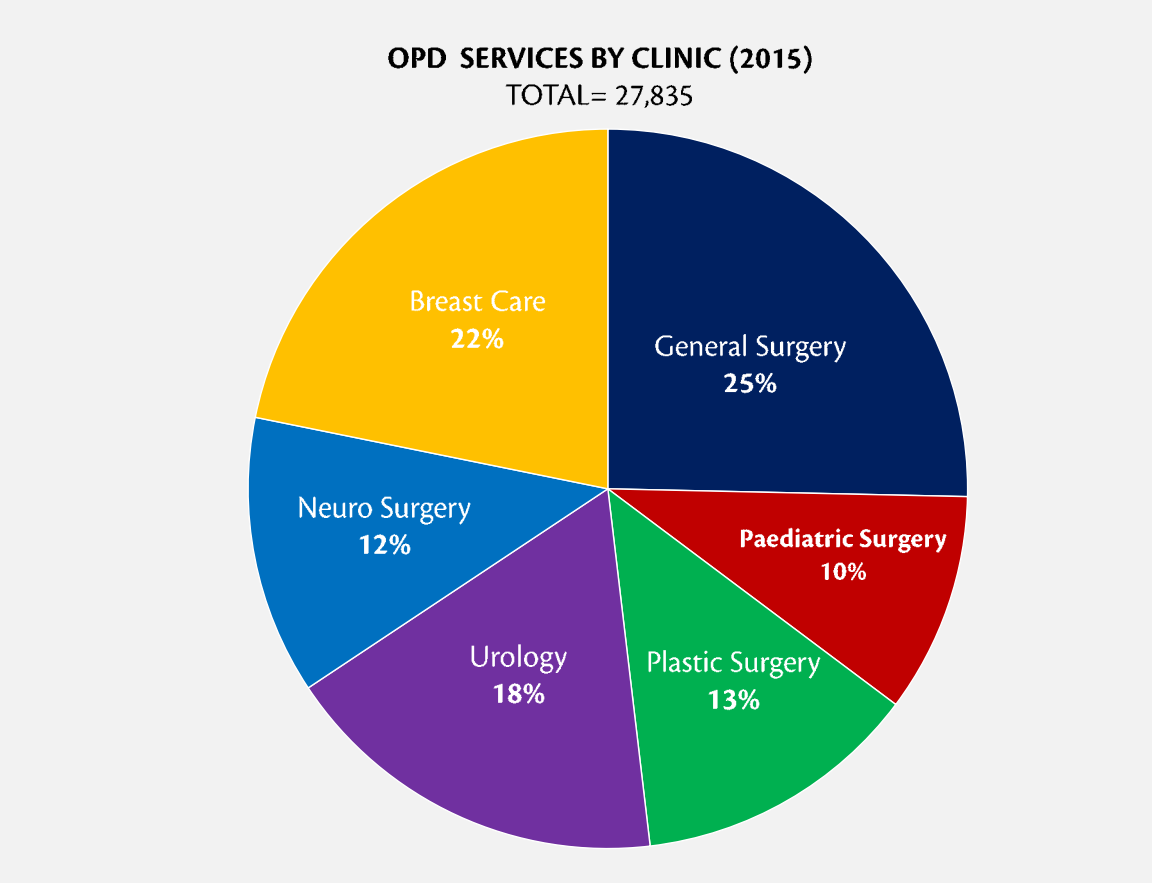
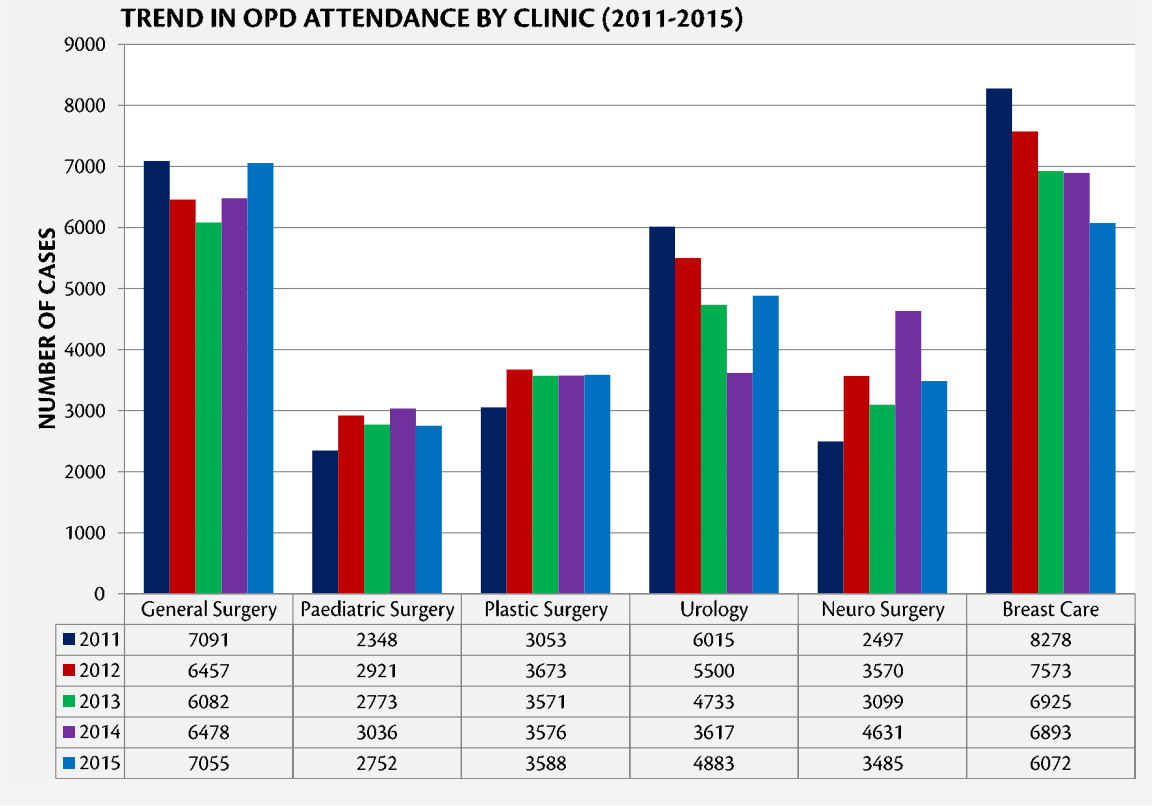


Figure 25: *Trend in OPD Attendance by Clinics in Surgery Directorate (2011-2015)*



	General Surgery	Paediatric Surgery	Plastic Surgery	Urology	Neuro Surgery	Breast Care
2011	7091	2348	3053	6015	2497	8278
2012	6457	2921	3673	5500	3570	7573
2013	6082	2773	3571	4733	3099	6925
2014	6478	3036	3576	3617	4631	6893
2015	7055	2752	3588	4883	3485	6072

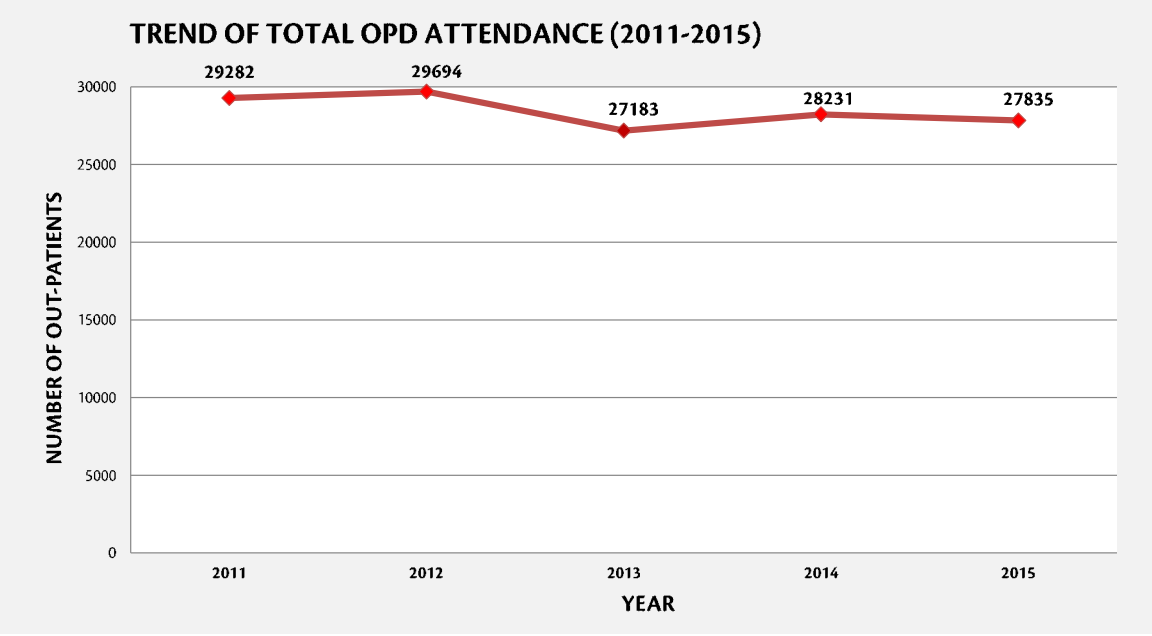
TREND OF OPD ATTENDANCE 2011-2015

Over the five year period (2011-2015), OPD attendance has generally not been consistent. In 2015, the directorate saw 1.4% fewer cases than in 2014. The following figure presents total OPD attendance over the past five years.

IN-PATIENT SERVICES

There were a total of 3,863 admissions in the directorate in 2015. This was 127 less than the projeced target. The bed complement for the year under review was 179 and a bed occupancy of 79.5%. The directorate recorded an average length of stay of 14 days for the period under review.

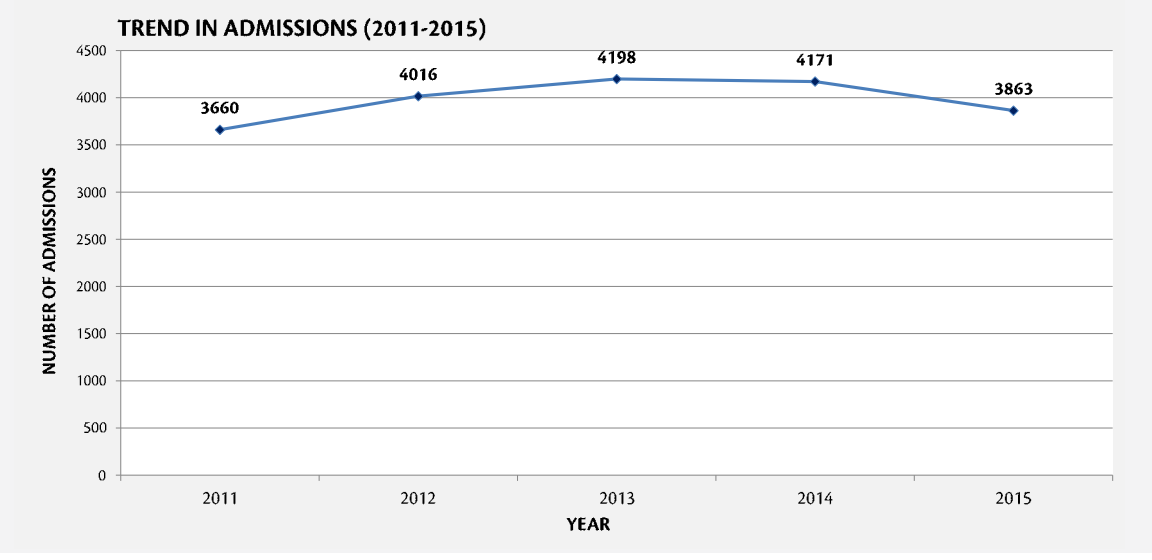
Figure 26: *Trend of Total OPD Attendance in Surgery Directorate (2011-2015)*



TREND IN ADMISSIONS

From 2011 to 2013, there was a gradual increase in admissions, followed by a decline in in-patient numbers in 2014 and 2015. (Figure 27)

Figure 27: *Trend in Admissions in Surgery Directorate (2011-2015)*



TOP TEN CAUSES OF ADMISSION

In 2015, the top ten causes of admissions accounted for 37.7% of all admissions. Diseases of Genitourinary system, Malignant Neoplasm and Diseases of Intestines each accounted for at least 5.0% of all admissions. (Table 20)

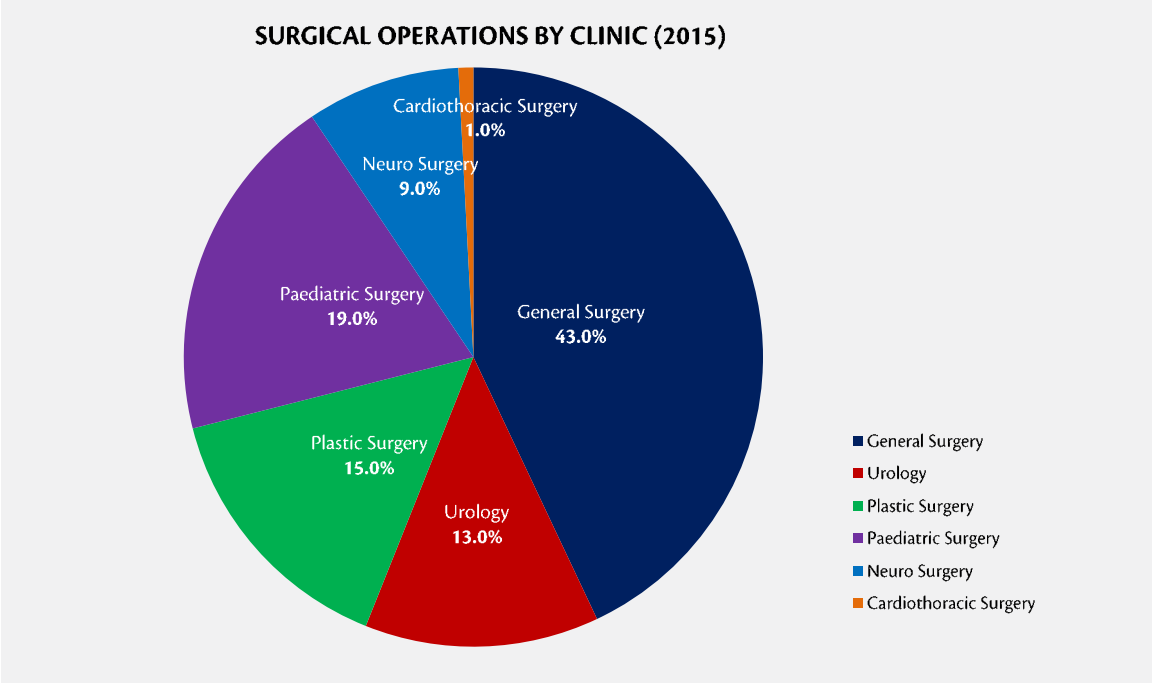
SURGICAL OPERATIONS CONDUCTED BY SPECIALTY

In 2015, a total of 3,739 major surgeries were carried out in the directorate. This represents 93.5% of the projected target of 4,000 cases of the year under review. General Surgery accounted for 43.0% of all surgeries carried out.

Table 20: *Top Ten Causes of Admission by Disease Category in Surgery Directorate (2015)*

DISEASE CATEGORY	ADMISSIONS	PORPORTION OF TOTAL ADMISSIONS
Diseases of genitourinary system	216	5.6%
Malignant neoplasm	207	5.4%
Diseases of intestines	193	5.0%
Hernia	189	4.9%
Diseases of appendix	173	4.5%
Injuries to the head	171	4.4%
Diseases of oesophagus, duodenum and stomach	93	2.4%
Disorder of skin and subcutaneous tissues	85	2.2%
Burns and corrosions	76	2.0%
Infection of the skin and subcutaneous	51	1.3%
Others	2,409	62.4%
TOTAL	3,863	100.00%

Figure 28: *Surgical Operations by Clinic in Surgery Directorate (2015)*



TREND ANALYSIS OF SURGICAL OPERATIONS (2011-2015)

There has been a consistent decline in surgical operations since 2012. There were 8.72% fewer surgeries conducted in 2015 as compared to 2014. (Figure 29)

◇ *Priority Activity 2*

SUSTAIN ACTIVITIES TO REDUCE MORTALITIES, ESPECIALLY MATERNAL AND NEONATAL DEATHS

As part of efforts to strengthen mortality audits and quality assurance within the directorate, monthly mortality, morbidity and Quality Assurance meetings were organized during the year under review.

TREND IN MORTALITY

Mortality rate has seen a declining trend over the five year period except for an increase in rates in 2013. In 2015, mortality rates declined further to 6.0%.

TOP TEN CAUSES OF DEATH

In the year under review, the top ten causes of death accounted for 38.4% of all deaths in the directorate. The number one cause of deaths at the Surgery Directorate for 2015 was Malignant Neoplasms (23).This accounted for 10.3% of all deaths in the directorate. Head injuries and diseases of intestines each accounted for over 5.0% of deaths in the Surgery directorate.

Figure 29: *Trend in Surgical Operations in Surgery Directorate (2011-2015)*

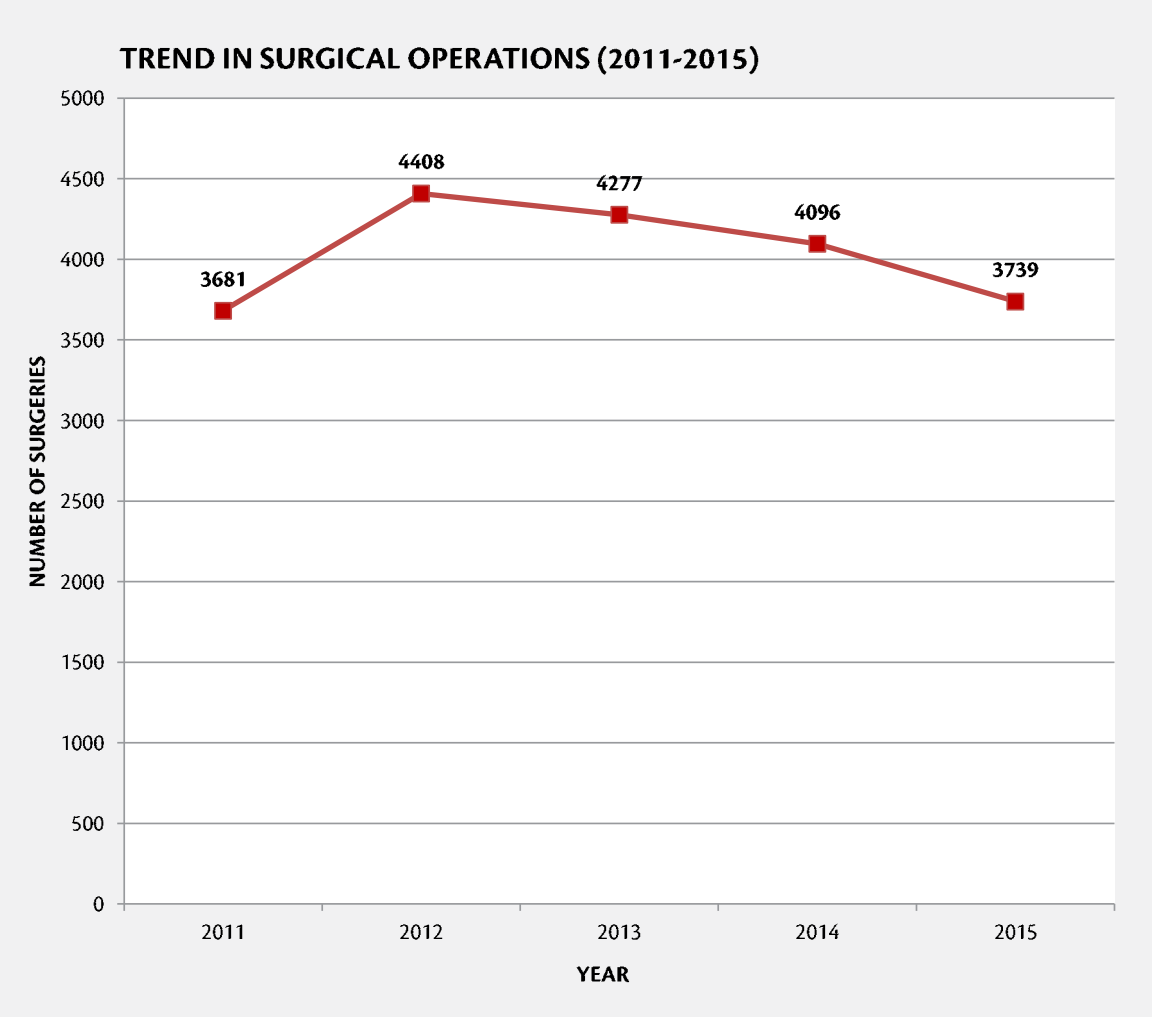


Figure 30: *Trend in Mortality Rates in Surgery Directorate (2011-2015)*

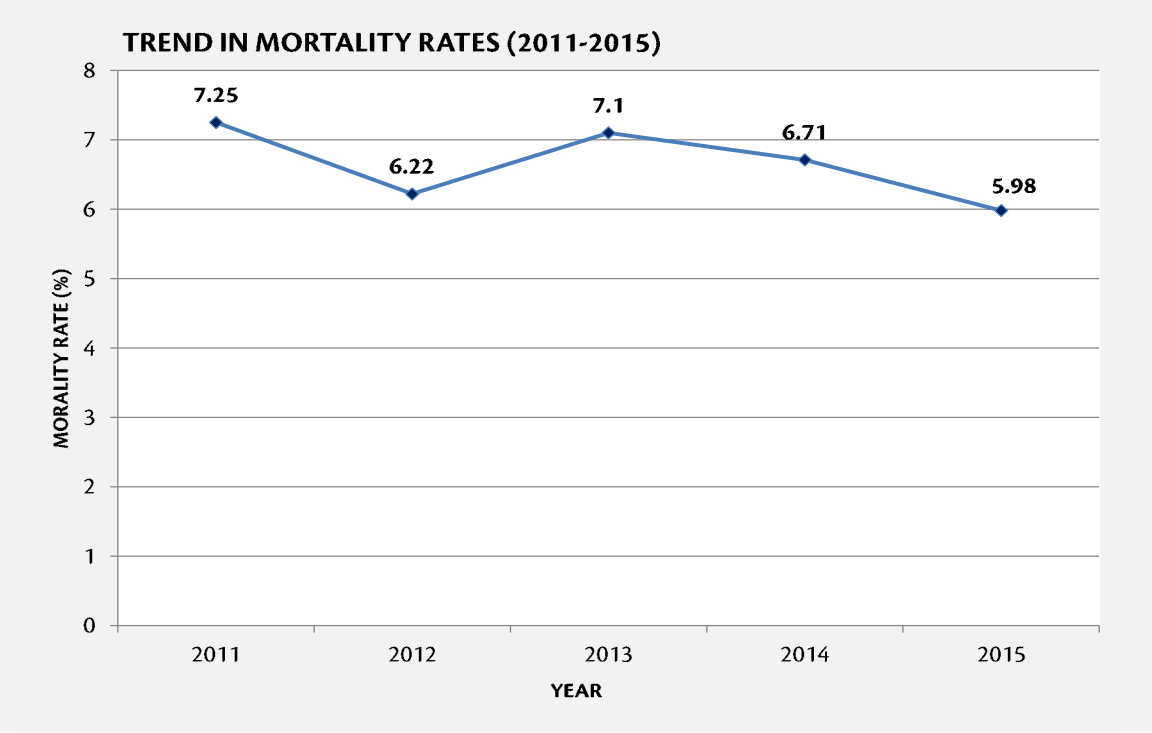


Table 21: *Top Ten Causes of Deaths in Surgery Directorate (2015)*

DISEASE CATEGORIES	DEATHS	PROPORTION OF TOTAL DEATHS
Malignant neoplasms	23	10.3%
Head injuries	15	6.7%
Diseases of intestines	13	5.8%
Diseases of appendix	11	4.9%
Hernia	7	3.1%
Diseases of oesophagus, stomach and duodenum	5	2.2%
Burns and corrosions	5	2.2%
Gangrene	3	1.3%
Infections of skin and subcutaneous tissue	2	0.9%
Disorder of the skin and subcutaneous tissue	2	0.9%
Others	138	61.6%
TOTAL	**224**	**100.0%**

DIRECTORATE OF CHILD HEALTH

11

The Directorate of Child Health runs paediatric clinical services in the hospital. It has an Out-Patient section, Paediatric Emergency Unit and In-Patient unit.

◇Priority Activity 1

INCREASE THE RANGE OF SPECIALIST SERVICES

In the year under review, the directorate put together a number of interventions aimed at providing efficient and innovative response to child health care

OUT-PATIENT SERVICES

The directorate runs General and Sub-specialty Out-Patient clinics in various sections of the Directorate, with most clinics run in consulting room 10.The Sub-specialty clinics are: Asthma, TB, HIV, Renal, Cardiology, Sickle cell, Cleft, Neuro/Epilepsy, Endocrine (excluding Diabetes), Diabetes, Oncology/Burkitts, and Malnutrition.

OUT-PATIENT UTILIZATION FOR 2015

The directorate saw 19,118 out-patients during the period under review. A total of 6,302 (33.0%) patients were seen as General specialist cases with the remainder, 67.0%, seen as the Sub-specialty clinics. The 6,302 general out-patients seen represented 78.8% of the target (8,000) and the 12,816 patients seen in at the Sub-specialty clinic represented 82.4% of the target (15,550) for 2015.

More than 50.0% of the patients at Sub-specialty Clinics were seen at Sickle Cell, Paediatric HIV and Neurology/Epilepsy Clinics. The cases seen in the various Sub-specialty clinics are as shown in Table 22.

PRIORITY ACTIVITIES

Increasing the Range of Specialist Services

Sustaining Activities to Reduce Mortalities

Continuing to Support Emergency Services

Supporting the training of Staff

Providing Outreach Services for Hospitals in the Northern Sector of Ghana

Table 22: *Cases seen at Sub-specialty clinics in Child Health Directorate (2015)*

SUB-SPECIALTY CLINICS	CASES SEEN	PERCENTAGE
Sickle Cell Clinic	3576	27.9%
Paediatric HIV Clinic	1,742	13.6%
Neurology/Epilepsy	1730	13.5%
Malnutrition Clinic	1135	8.9%
Oncology	996	7.8%
Cardiology Clinic	989	7.7%
Renal Clinic	957	7.5%
Cleft Palate Clinic	804	6.3%
Asthma Clinic	616	4.8%
Endocrine Clinic	140	1.1%
Diabetes Clinic	131	1.0%
TOTAL	**12,816**	**100.0%**

TREND OF OPD SERVICES UTILIZATION BY SUB-SPECIALTY CLINICS

The table below presents performances of the sub-specialist clinics from 2011-2015.

Table 23: *Trend of Sub-specialist clinics in Child Health Directorate (2011-2015)*

SUB-SPECIALITY CLINICS	2011	2012	2013	2014	2015
Sickle cell	3,551	5,447	5,547	4,873	3,576
Paediatric HIV Clinic	372	2,173	1,784	1,864	1,742
Neurology/Epilepsy Clinic	1,339	1,373	1,576	1,894	1,730
Asthma Clinic	940	844	570	603	616
Oncology/Burkitts lymphoma	96	509	709	924	996
Cardiology Clinic	770	827	1,110	957	989
Malnutrition Clinic	729	577	1,110	1,521	1,135
Cleft Palate	403	810	1,000	735	804
Renal	794	920	972	1,042	957
Endocrine	-	88	150	222	140
Diabetic	-	-	-	161	131

Despite Sickle cell clinic recording the highest attendance (3,576) for 2015, the general trend has not been consistent over the past 5 years. There has been a steady decrease in sickle cell cases seen since 2013. Overall, there has been an increase in Sub-specialty OPD attendance from 2011 to 2014, however there was a decline in 2015.

TREND ANALYSIS OF OPD UTILIZATION (2011 – 2015)

Generally, total OPD attendance in the directorate has fluctuated from 2011-2015. In 2015, there were 1,906 fewer cases seen as compared to 2014. This represents a 9.1% decrease over the 2014 figure of 21,024 as shown in the Figure 31 below.

IN-PATIENTS

The In-patient section of the directorate consists of four wards;

- Ward C5 – Cardiology/Pulmonology/ Endocrine
- Ward B4 – Malnutrition/Nephrology
- Ward B5 – Haematology/Oncology/ Neurology
- Mother-Baby Unit (MBU) – Neonatology

The directorate admitted 7,410 patients in 2015

Figure 31: *Trend in OPD Attendance in Child Health Directorate (2011-2015)*

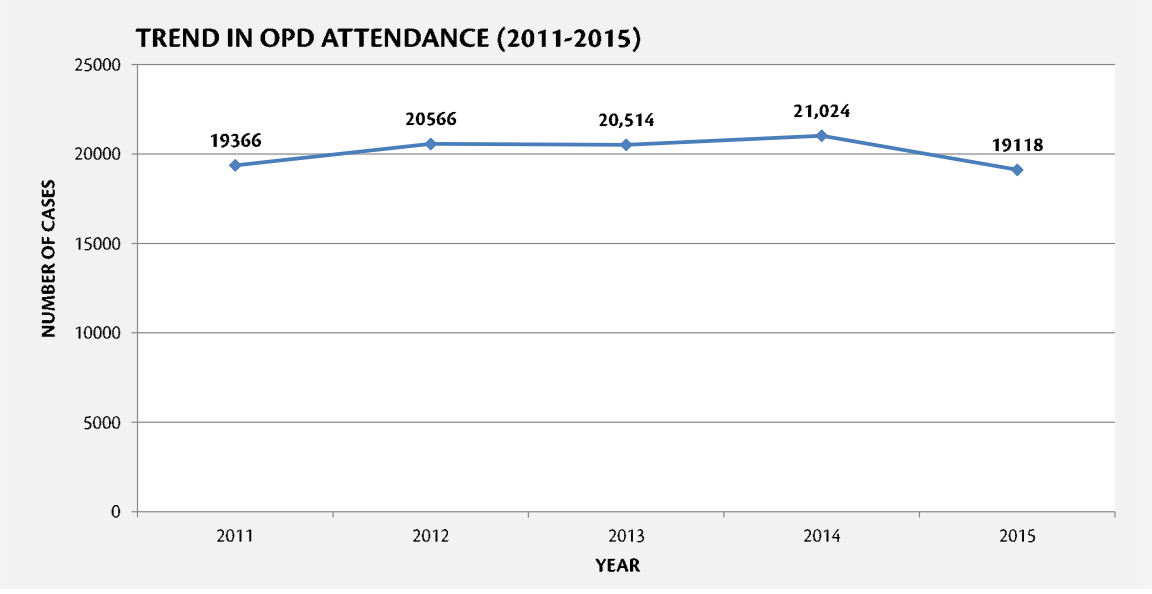
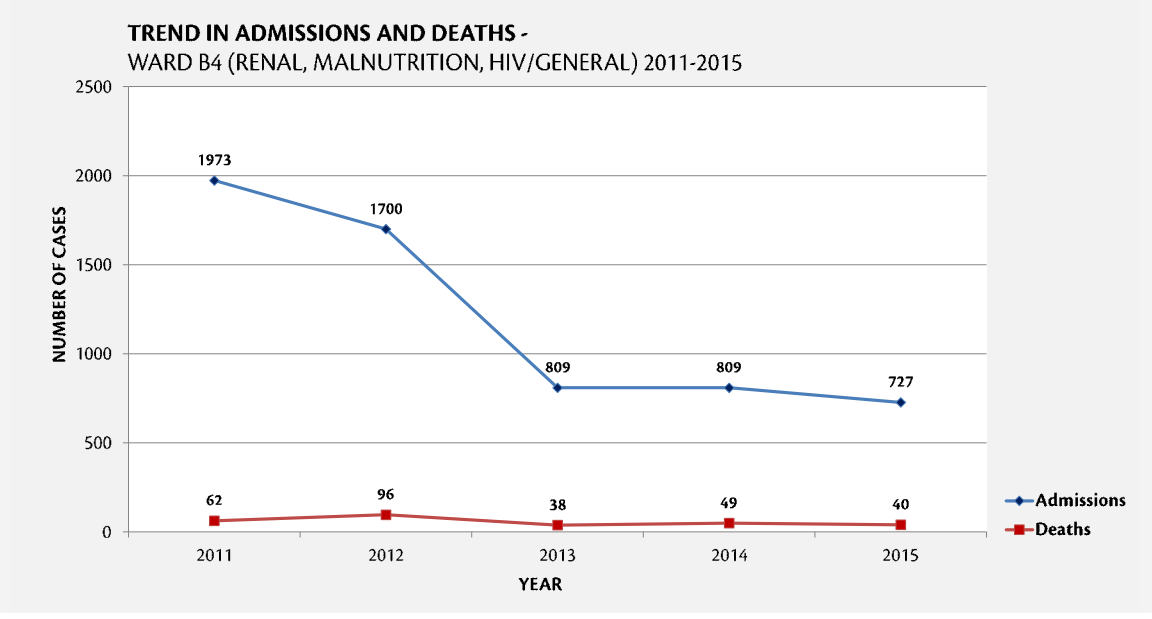


Figure 32: *Trend of admissions and Deaths, Ward B4 in Child Health Directorate (2011-2015)*

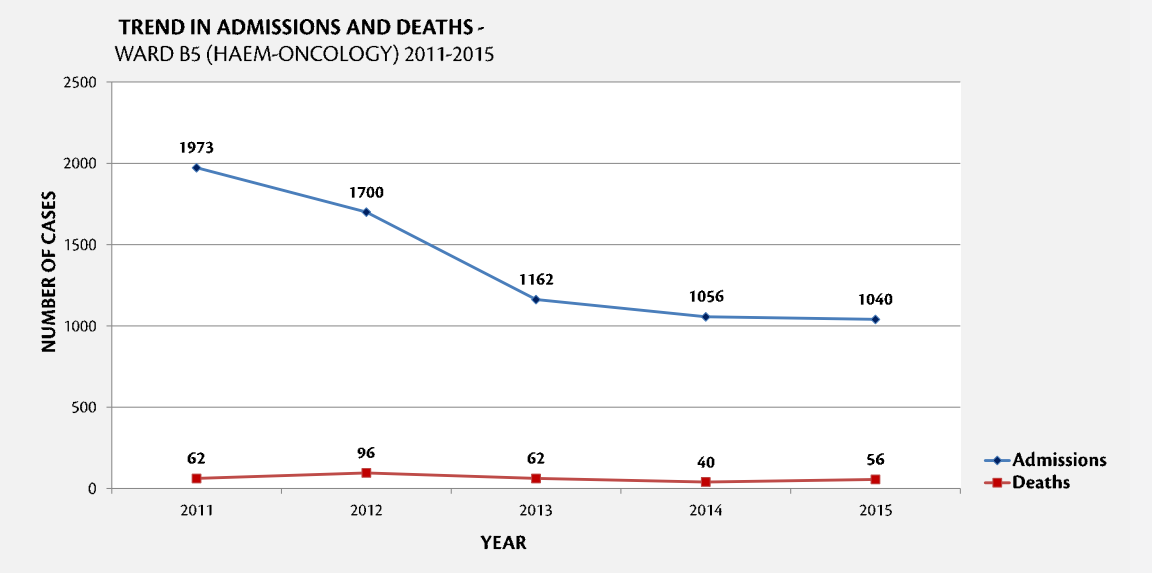


TREND IN ADMISSIONS

During the period under review, ward B4 experienced a declining trend in admissions. However, the trend in the number of deaths has been variable from 2011 to 2015.

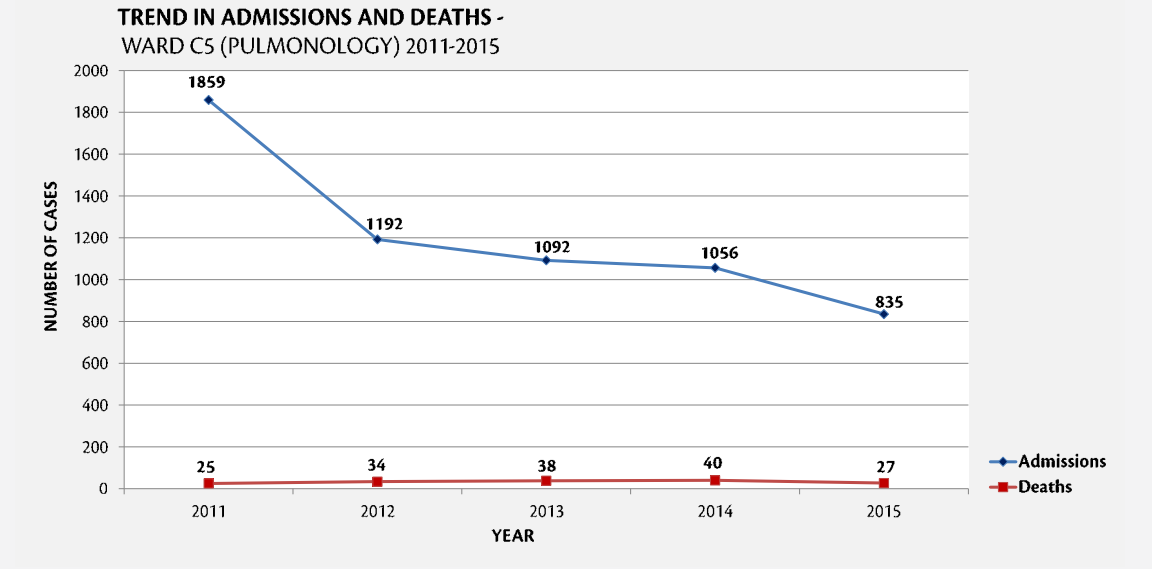
Admissions in Ward B5 have declined from 2011 to 2015. In the year under review, there were 16 less admissions as compared to 2014

Figure 33: *Trend of Admissions and Deaths, Ward B5 in Child Health Directorate (2011-2015)*



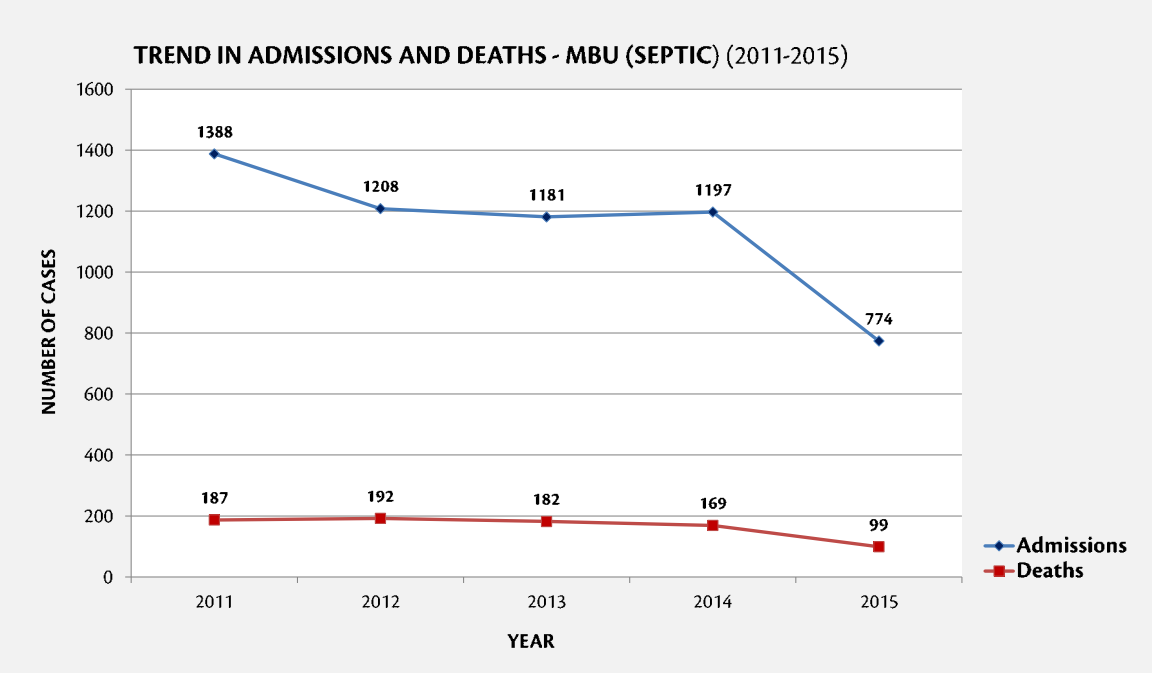
Although the trend in admissions in Ward C5 has continuously declined over the five year period, the trend in mortalities in the Ward fluctuated over the period.

Figure 34: *Trend of Admissions and Deaths, Ward C5 in the Child Health Directorate (2011-2015)*



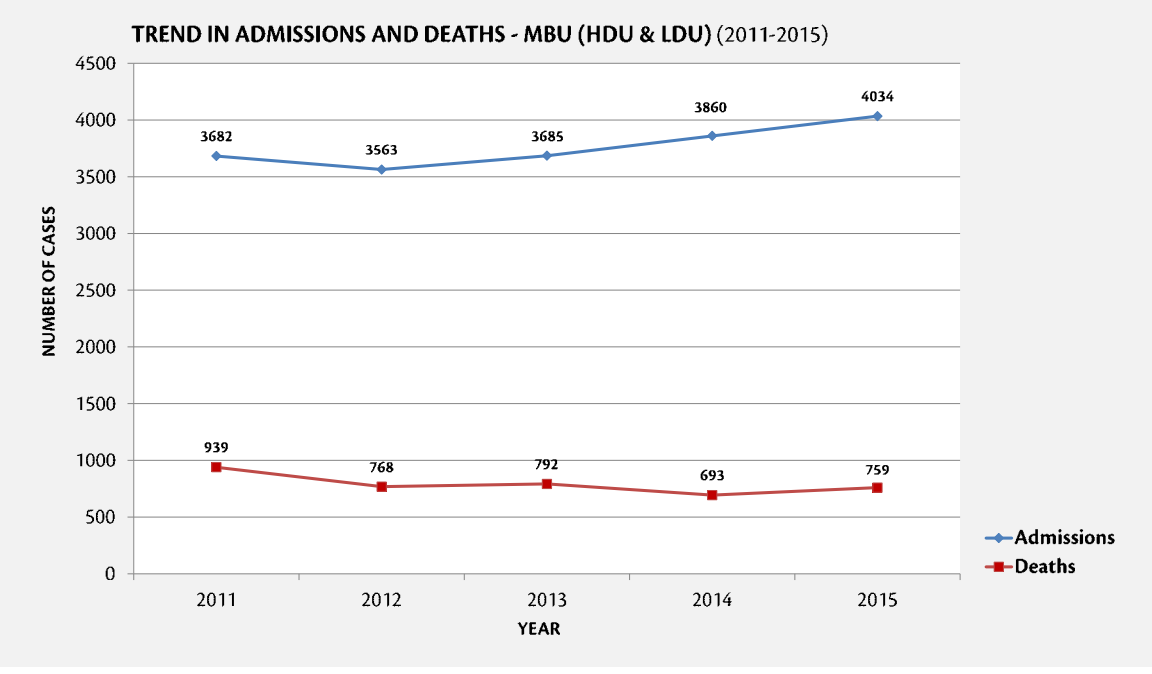
MBU accounted for 64.9% of total admissions in the year under review. MBU-Septic accounted for 16.1% of all total admissions in the MBU.

Figure 35: *Trend of Admissions and Deaths, MBU (Septic) in the Child Health Directorate (2011-2015)*



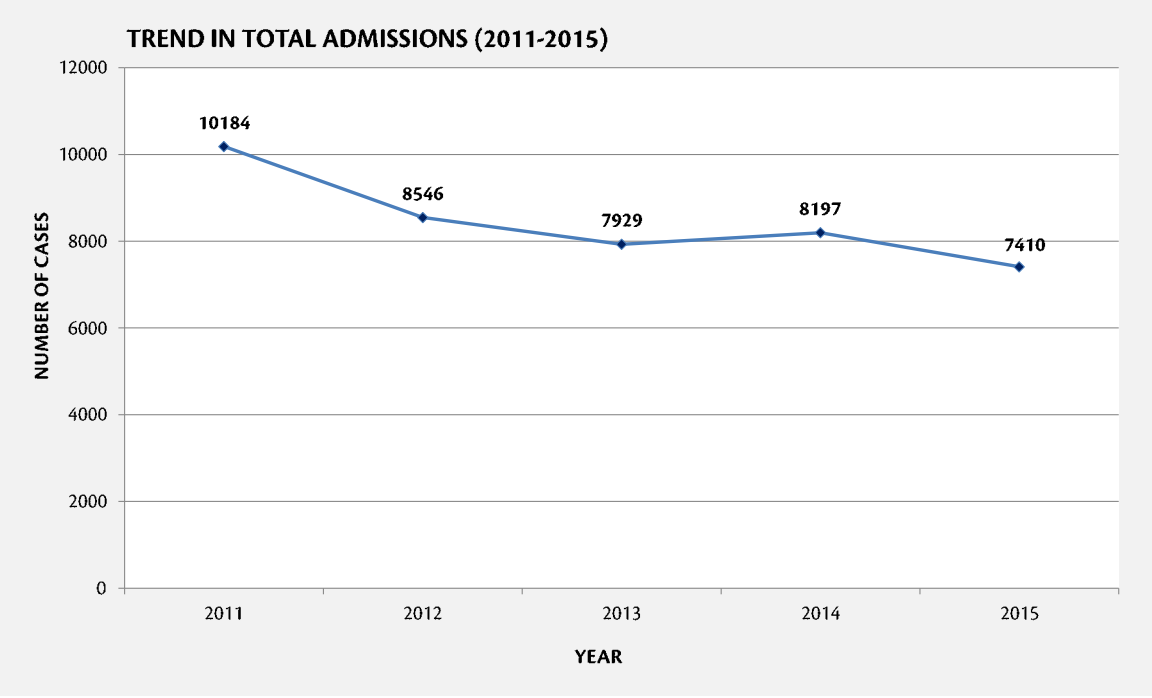
The trend in admissions in MBU High Dependency Unit (HDU) & Low Dependency Unit (LDU) has risen since 2012. In 2015, there were 4.5% more admissions as compared to 2014.

Figure 36: *Trend of Admissions – MBU (HDU and LDU)*



The directorate has experienced a general decline in the number of in-patients seen over the past five years except for the marginal increase in 2014. The year under review recorded 9.6% fewer cases as compared to 2014 (8,197) admissions. Overall, the 7,410 patients seen represents 74.1% of the projected target of 10,000 in-patients for 2015.

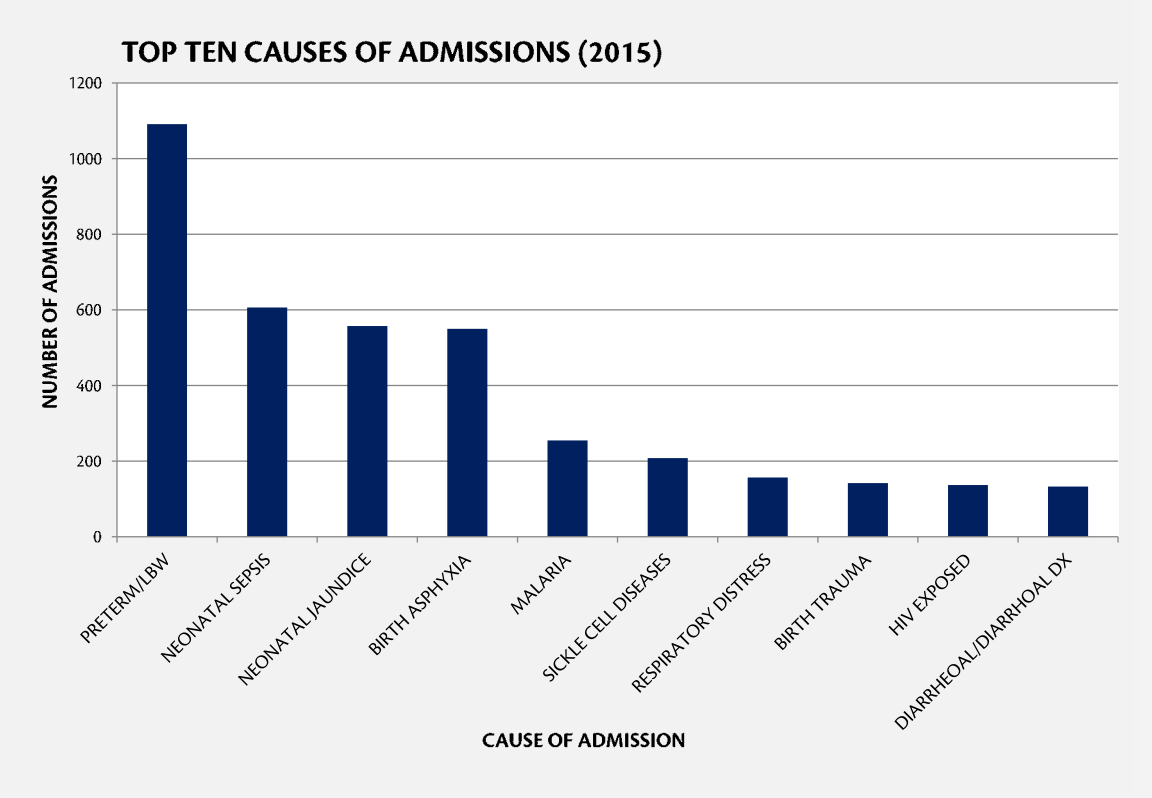
Figure 37: *Trend in In-patient Service Utilization in Child Health Directorate (2011-2015)*



TOP TEN (10) CAUSES OF ADMISSIONS

Preterm/Low Birth Weight, Neonatal Sepsis, Neonatal Jaundice and Birth Asphyxia were the major causes of admissions in 2015.

Figure 38: *Top Ten Causes of Admissions in Child Health Directorate for 2015*



◇*Priority Activity 2*

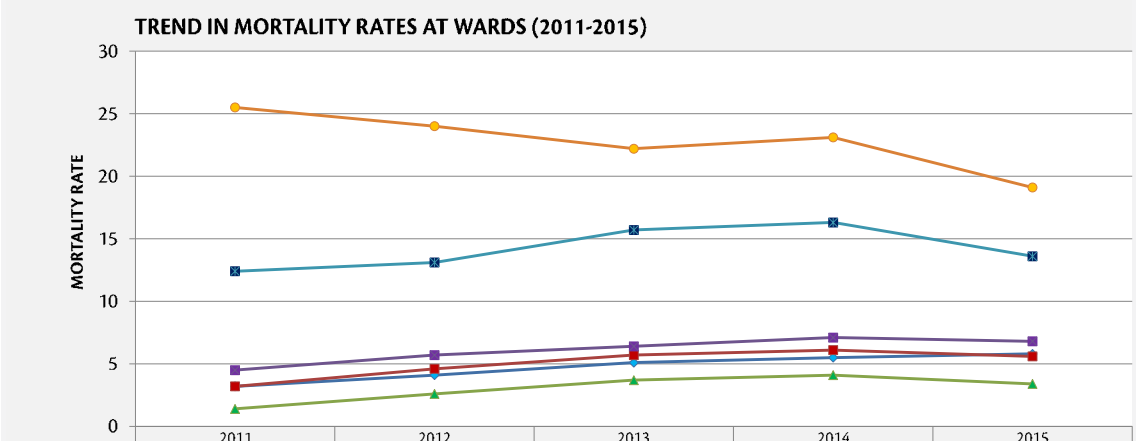
SUSTAIN ACTIVITIES TO REDUCE MORTALITIES, ESPECIALLY MATERNAL AND NEONATAL DEATHS

In 2015, the focus for the directorate was to intensify measures to improve quality indicators such as mortality, quality assurance, infection control and patient safety.

TREND IN MORTALITY RATE

The trends in mortality rates in the various wards of the directorate have fluctuated over the period. However in 2015, all mortality rates declined as compared to the previous year, with exception of Ward B4, which had a consistent marginal rise from 2011 to 2015.

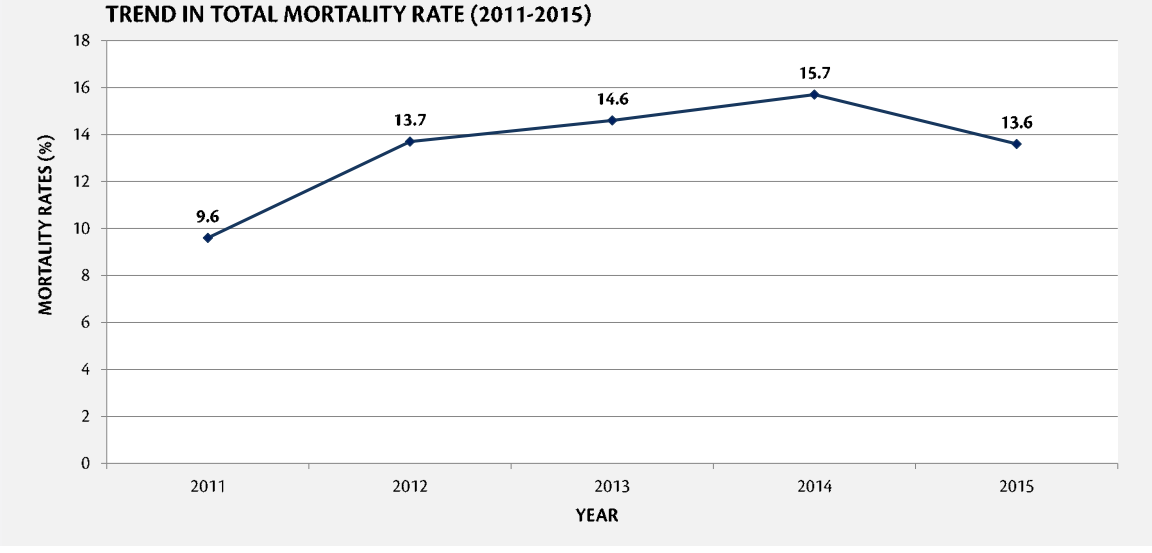
Figure 39: Trend in Mortality Rates at Wards in Child Health Directorate (2011-2015)



	2011	2012	2013	2014	2015
Ward B4	3.2	4.1	5.1	5.5	5.8
Ward B5	3.2	4.6	5.7	6.1	5.6
Ward C5	1.4	2.6	3.7	4.1	3.4
P.E.U.	4.5	5.7	6.4	7.1	6.8
MBU Septic	12.4	13.1	15.7	16.3	13.6
MBU Main	25.5	24	22.2	23.1	19.1

Overall, mortality rates declined in 2015 compared with 2014 (15.7%). However, the rate was still higher than the lowest rate recorded over the five year period in 2011 (9.6%).

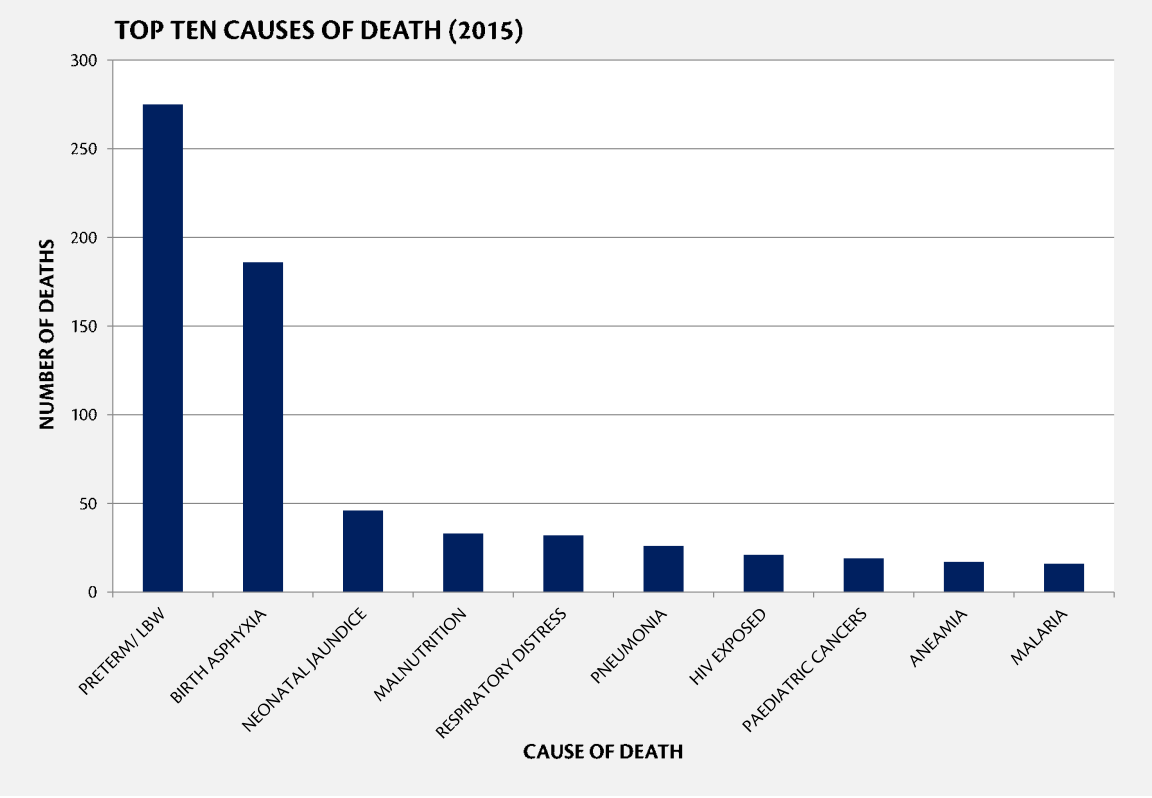
Figure 40 : ***Trend in Mortality Rates among Admissions in Child Health Directorate in 2015***



TOP TEN CAUSES OF DEATHS

Preterm/Low Birth Weight and Birth Asphyxia were the first two causes of death recording 275 and 186 deaths respectively as presented in the figure below.

Figure 41: *Top ten causes of Death in Child Health Directorate for 2015*



◇ *Priority Activity 3*

CONTINUE TO SUPPORT EMERGENCY SERVICES

PAEDIATRIC EMERGENCY UNITS

The directorate currently runs three (3) paediatric emergency units. These are;

- Paediatric Emergency Unit (PEU)
- Paediatric Intensive Care Unit (PICU)
- Mother-Baby Unit (MBU)

The directorate saw a total of 2,880 out-patients at the various emergency units.

◇ *Priority Activity 7*

SUPPORT DISTRICT AND REGIONAL HOSPITALS IN THE NORTHERN SECTOR OF GHANA, BY WAY OF PROVIDING OUTREACH SERVICES

In addition to the OPD and in-patient services provided, the directorate undertook the following outreach services:

- Telephonic consultations to peripheral hospitals.
- Neonatal support services to Suntreso and Kumasi South Hospitals.
- Health education on local radio and television.
- Support to the following peripheral facilities:

- Manhyia Government Hospital,
- Tafo Government Hospital,
- Maternal and Child Health Hospital
- Kwadaso S.D.A. Hospital
- Kumasi South Hospital
- Methodist Faith Hospital
- Aburaso Hospital
- KNUST Hospital
- Suntreso Hospital

◇ *Priority Activity 13*

SUPPORT TRAINING OF STAFF

One hundred and fifty (150) doctors and nurses attended various conferences during the year under review. Two (2) nurses were pursuing training in critical care with emphasis on neonates in 2015. In addition to this, two (2) doctors were pursuing training in Neonatology.

DIRECTORATE OF EENT

12

The Directorate of EENT is a Clinical Directorate of the Hospital consisting of two (2) distinct departments – ENT and the Eye Centre. The Directorate is mandated to provide Specialist Eye, Ear, Nose and Throat medical services. As part of its mandate the directorate also runs outreach services in Eye, Ear, Nose and Throat (ENT).

MANDATE

TO PROVIDE SPECIALIST
Eye
Ear
Nose
&
Throat
SERVICES

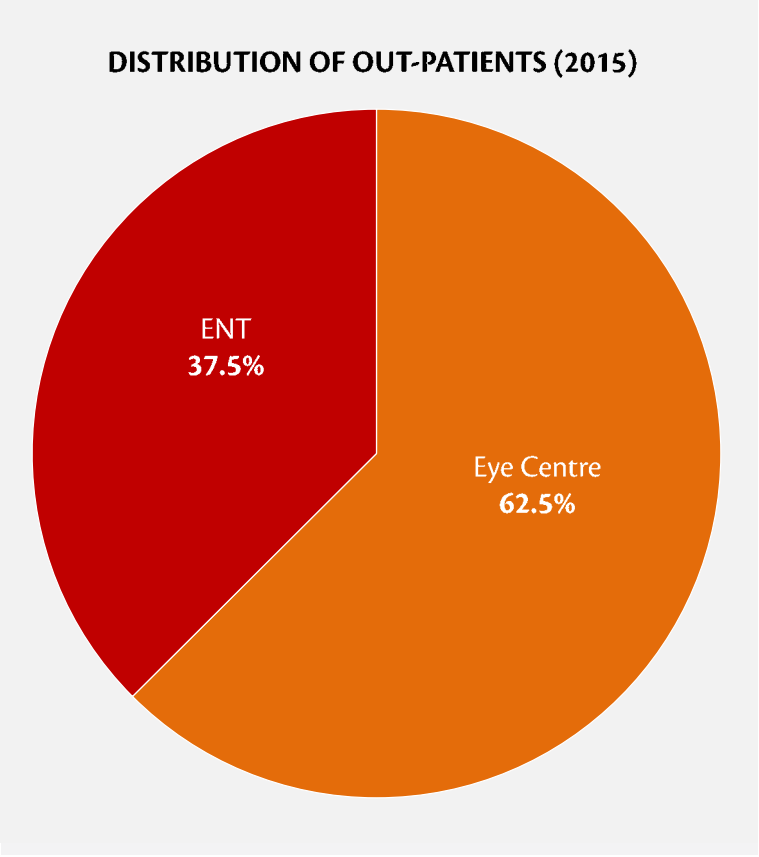
◇*Priority Activity 1*

INCREASE THE RANGE OF SPECIALIST SERVICES

OUT – PATIENT SERVICES

In 2015, both departments saw a total of 39,360 cases. The Eye Centre saw a larger proportion of out-patients (24,614 representing 62.5% of all out-patients). The proportion of cases seen by the respective departments is as shown in Figure 42.

Figure 42: *Distribution of Out-patients in EENT Directorate by Department*



TREND IN OPD UTILIZATION BY CLINICS 2011 – 2015

Over the five year period (2011-2015), the Eye Centre consistently saw more out-patient for all years with the exception of 2012 (Figure 43). Out-patients cases at the ENT department have seen a consistent decline over the five year period from 21,982 in 2011 to the current 14,746 out-patient seen in 2015. The figure below gives the detailed trend in OPD attendance at the directorate from 2011 to 2015.

OTHER SERVICES

The directorate provided the following services in the year under review. These services were:

- Audiology
- Speech Therapy
- Refractive Error
- Low Vision
- Visual Field Test
- Syringing and Other Procedures

In all, a total of 9,305 patients benefitted from the services listed above. The outputs for the various services are as shown in Table 24.

Figure 43: *Trend in OPD service by clinics in EENT (2011-2015)*

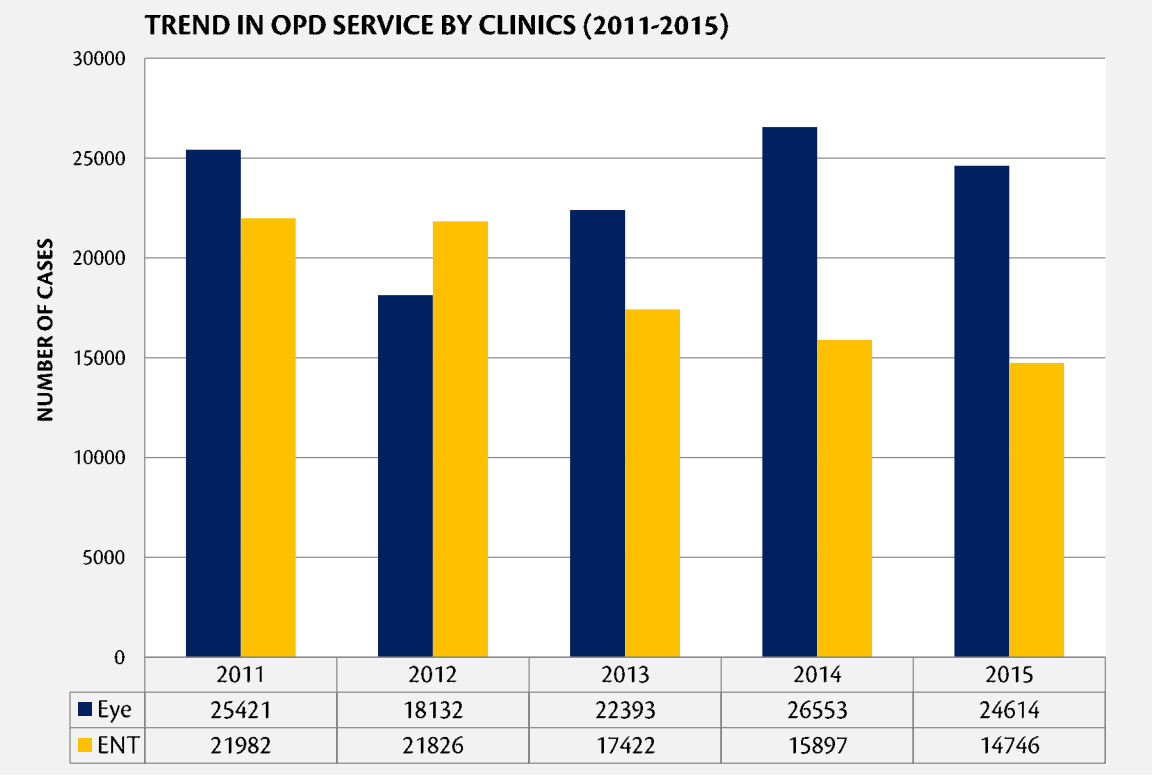


Table 24: *Expected and Actual outputs of Other Services in EENT in 2015*

SERVICES	EXPECTED OUTPUT	ACTUAL OUTPUT	PERCENTAGE (%)
Audiology	1,000	806	80.6%
Speech	400	89	22.3%
Refractive Error	7,560	5,369	71.0%
Low Vision	288	30	10.4%
Visual Field Test	400	345	86.3%
Syringing & Other Procedures	2,000	2,666	133.3%

SUB-SPECIALTY CLINICS – EYE CENTRE

The Eye Centre ran various sub-specialty clinics in the year under review. The Glaucoma Clinic accounted for the highest number of cases seen among the sub-specialty clinics. The Occuloplastic Clinic saw the least number of cases.

IN-PATIENT SERVICES

In 2015, a total of 744 in-patients were recorded in the directorate. This indicates 41.6% fewer cases than in 2014 (1,273). The average length of stay of patients has declined from 7 days in 2014 to 6 days for the period. Over the period, the directorate recorded 42.0% in its bed utilization. The trend in total admissions recorded in the directorate has fluctuated over the five-year period as illustrated in Figure 45.

Figure 44: *Number of cases seen at the Sub-specialty clinics of the Eye Centre (2015)*

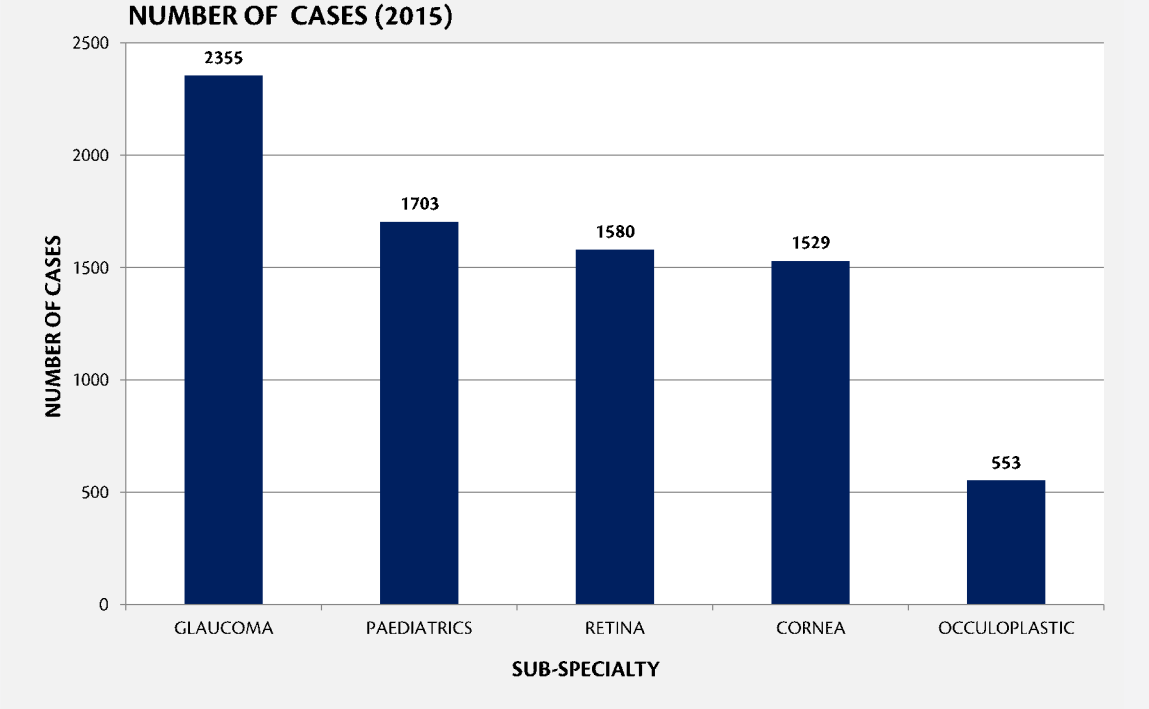
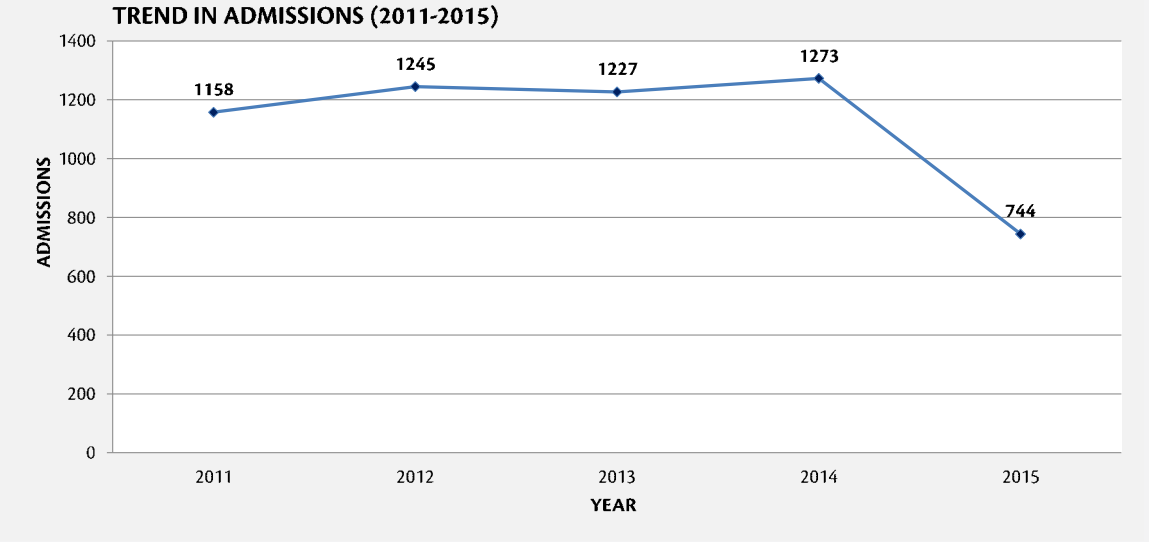


Figure 45: *Trend in admissions in EENT Directorate (2011-2015)*



SURGICAL OPERATIONS

Eye surgeries accounted for the majority (71.0%) of all surgical operations conducted in the year 2015. A total of 679 ENT surgeries were conducted in the year under review.

TREND IN SURGICAL OPERATIONS

The Eye unit recorded an inconsistent trend in the number of surgeries conducted over the five year period. There was an increase in surgeries done in 2015 of about 52.6% compared to the previous year. The number of ENT surgeries showed a downward trend from 2011 to 2014 with the exception of 2013. However, in 2015, 3.9% more surgeries were recorded as compared to 2014.

Figure 46: *Surgical Operations in EENT Directorate (2015)*

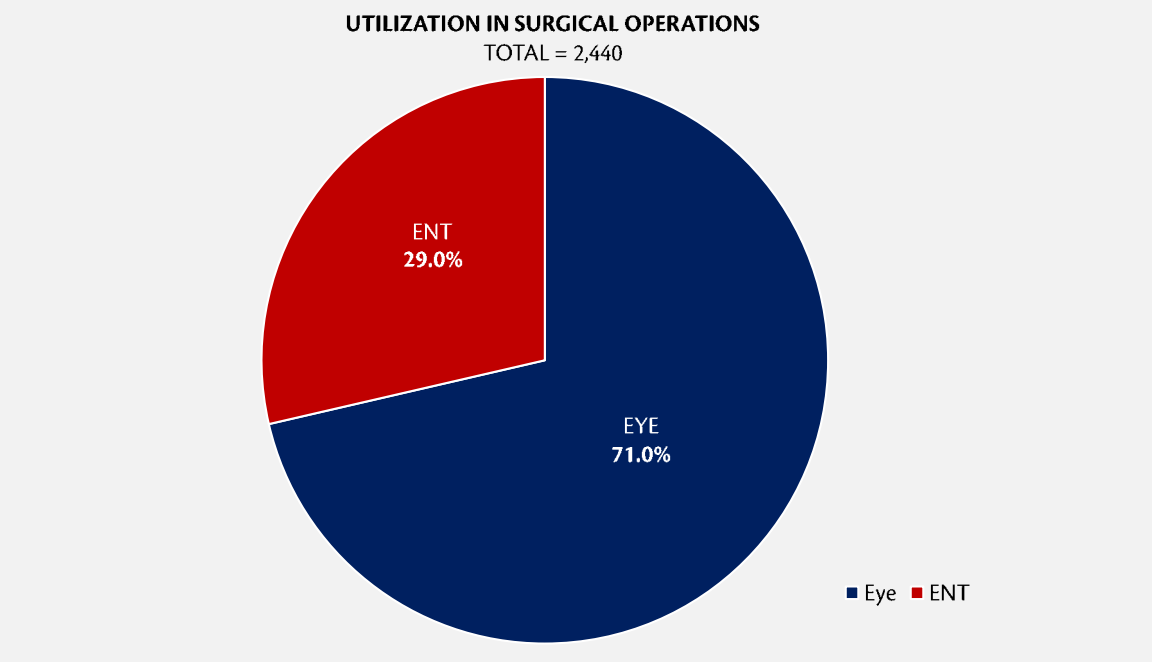
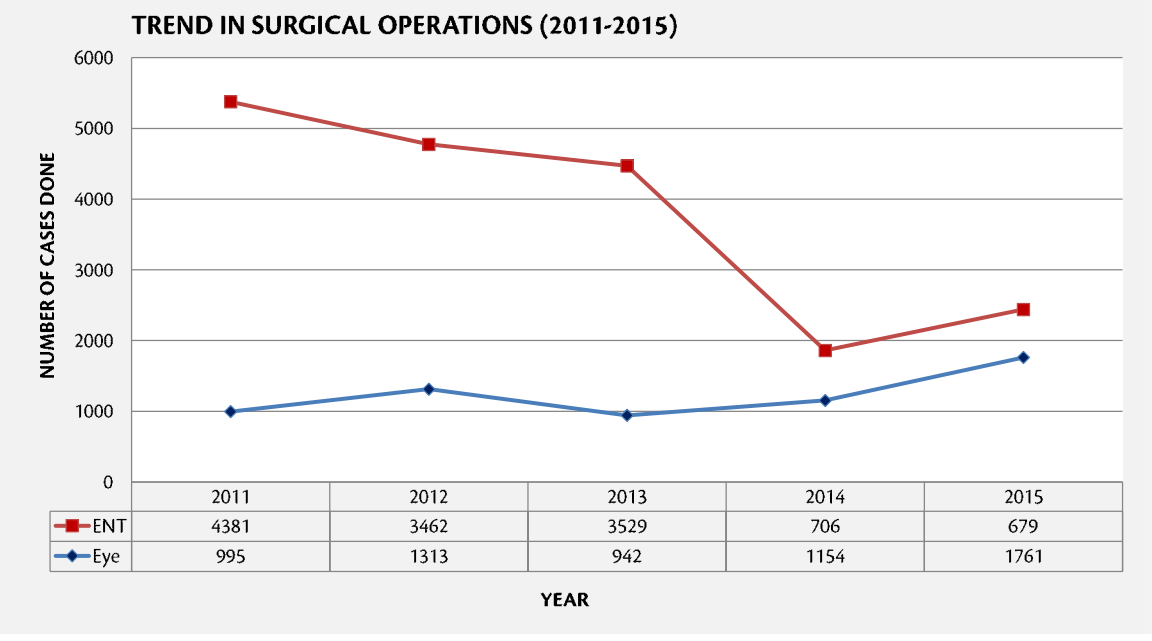


Figure 47: *Trend in Surgical Operations in EENT Directorate (2011-2015)*



◇ *Priority Activity 2*

SUSTAIN ACTIVITIES TO REDUCE MORTALITIES, ESPECIALLY MATERNAL AND NEONATAL DEATHS

From 2011 to 2013, mortality rate in the directorate increased. However, from 2013, the trend showed a decline in rates. This shows an improvement in performance in recent years.

◇ *Priority Activity 13*

SUPPORT TRAINING OF STAFF

In an effort to improve service delivery at the directorate, the following activities were carried out as outlined in Table 25 below.

Figure 48: *Trend in Mortality Rate in EENT Directorate (2011-2015)*

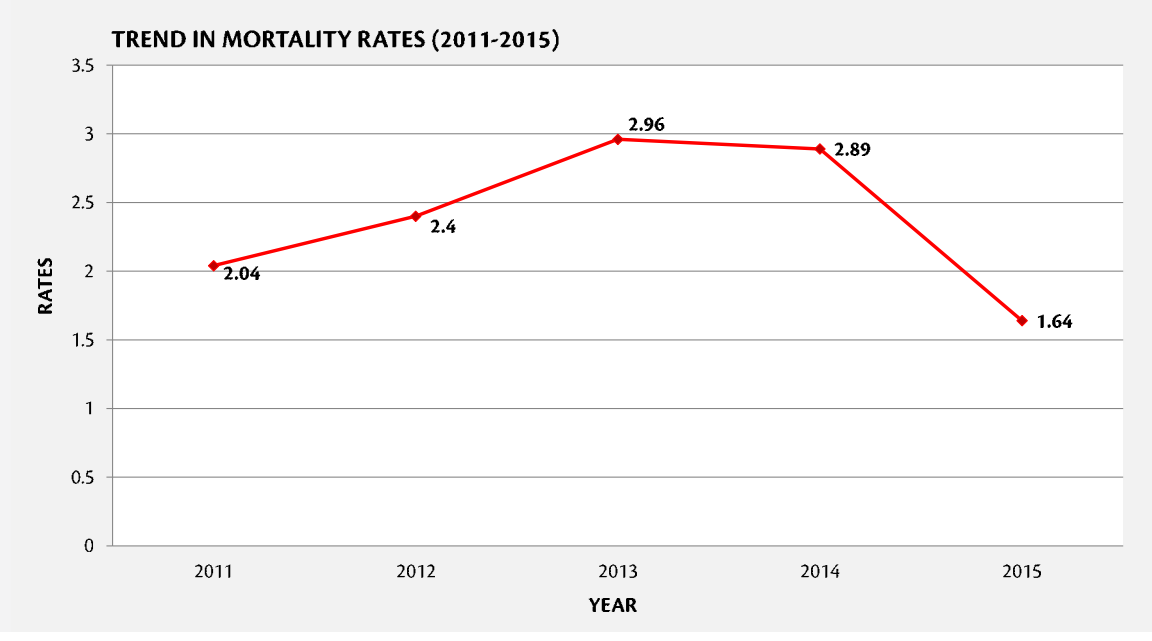


Table 25: *Staff training Programmes in EENT Directorate*

PROFESSIONAL GROUP/ NUMBER	TRAINING	PLACE OF TRAINING	DURATION
Two (2) Nurses	Observership	Tilganga Institute, Nepal	One (1) Month
Two (2) Nurses	Ophthalmic Nursing	School of Ophthalmology, Korle Bu	18 months
One (1) Biomedical Engineer	Equipment Maintenance	Tilganga Institute, Nepal	Two Months
One (1) Optometrist	A Low Vision and Rehabilitation	LV Prasad, India	3 Months
Three (3) Nurses And One Administrative Staff	Exchange Program	Zambia	One Week
One(1) Ophthalmologist	Ophthalmic Surgery	South Africa	12 months
One (1) Nurse	Patient Counselling	India.	11 Days
Three (3) doctors	Head and Neck and temporary Bone Dissection	University of Michigan	

DIRECTORATE OF ORAL HEALTH

13

The Directorate of Oral Health is mandated to provide general and specialist care for diseases and ailments of Oro-facial region, provide grounds for post-graduate training and update of skills for nurses, doctors and other paramedical staff in Oral Health; and to provide facilities for research into health problems.

The directorate runs four main clinics:

- Restorative Dentistry
- Orthodontic & Paedodontic
- Oral Maxillofacial Surgery
- Oral Diagnosis & Community

◇*Priority Activity 1*

INCREASE THE RANGE OF SPECIALIST SERVICES

For the period under review, the directorate embarked on outreach to two sites; Tikrom community and Church of Christ (Bomso). A total of 330 pupils were screened and 101 pupils were referred for further management.

OUT-PATIENT SERVICE (ATTENDANCE AND PROCEDURES)

In the year 2015, a total of 17,422 patients were seen at the Out-patients department of the Directorate. This represents about 87.1% of the target (20,000) achieved for the year. The 17,422 patients seen represent 3.2% more patients as compared to 2014.

The directorate also performed 22, 717 procedures, which represent 90.9% of a target of 25,000. However, this indicates 3.9% fewer procedures when compared to 2014's performance.

OUR FOUR MAIN CLINICS

ONE
Restorative Dentistry

TWO
Orthodontic & Paedodontic

THREE
Oral Maxillofacial Surgery

FOUR
Oral Diagnosis & Community

Figure 49: *Trend in OPD Attendance in Oral Health Directorate (2012-2015)*

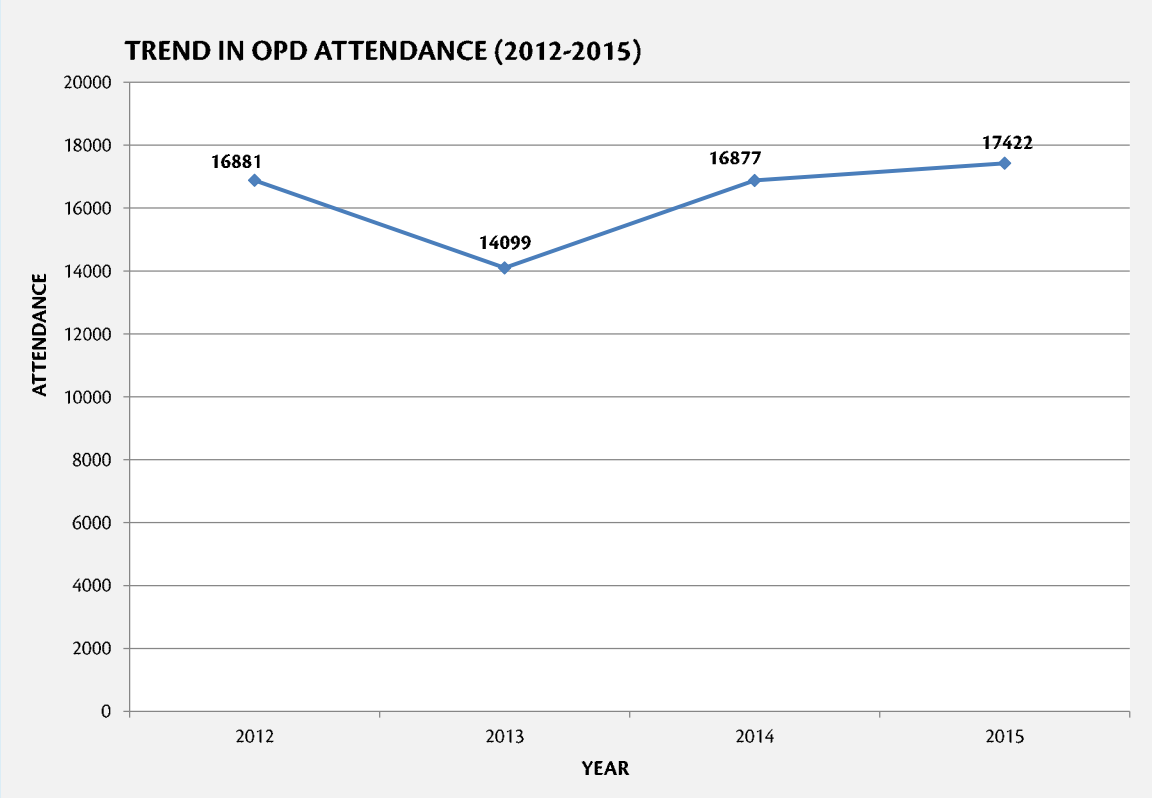
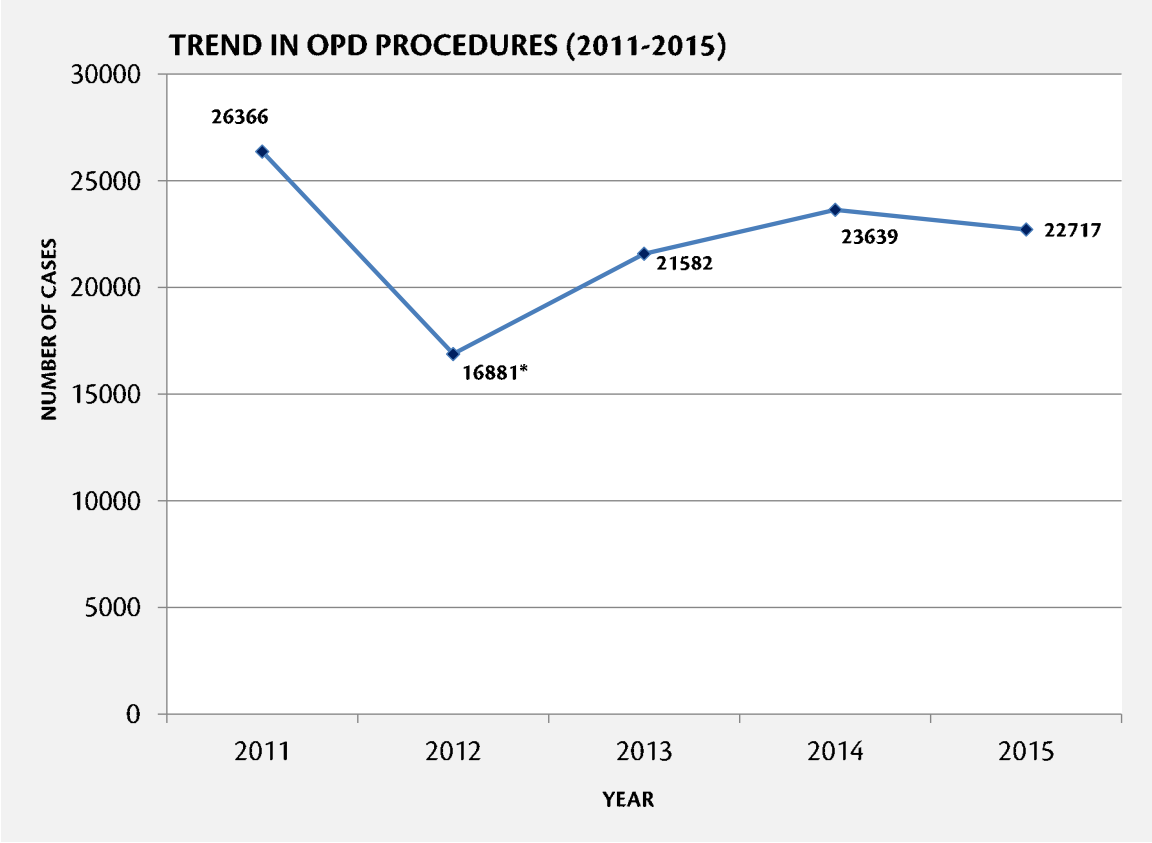
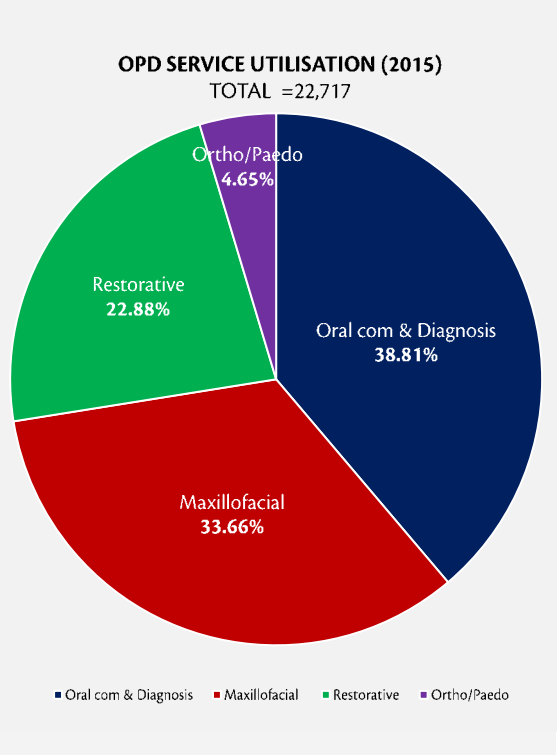


Figure 50: *Trend in OPD Cases in Oral Health Directorate (2011-2015)*



** Figure represents only OPD attendance but does not include all procedures.*

Figure 51: *OPD Procedures by clinic at the Oral Health Directorate (2015)*



OUT-PATIENTS PROCEDURES BY CLINIC

Oral Community and Diagnosis recorded 8,041 procedures for 2015 and was the highest across the various clinics. Orthodontic/Paedodontic clinic recorded the least number of procedures accounting for 4.7% of all procedures (Figure 51).

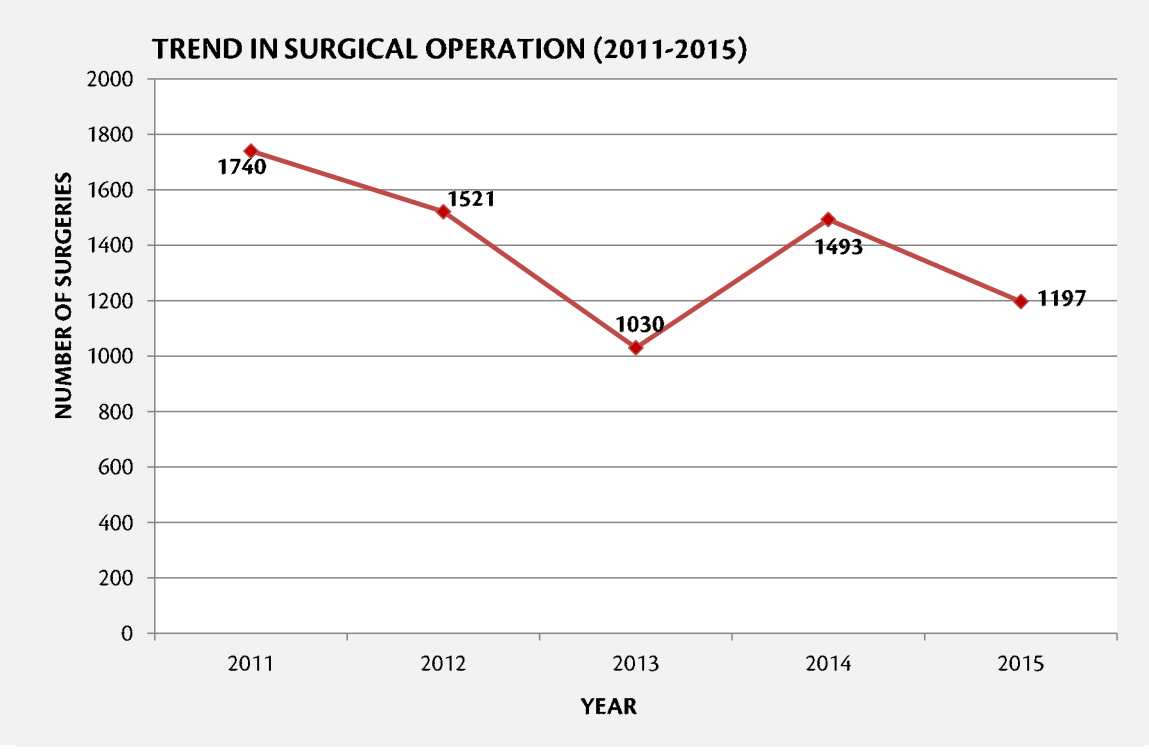
IN – PATIENT SERVICES

The Directorate recorded 508 admissions, 497 discharges and 11 deaths from January 1 to December 31, 2015. With respect to admissions, the directorate achieved about 72.6% of its target (700). The average length of stay was 10 days for the period under review.

TREND IN SURGICAL OPERATIONS

In the year under review, a total of 1,197 surgeries were performed, constituting 66.5% of the projected target. The surgeries carried out comprise 866 OPD surgical procedures and 331 theatre cases. The directorate has seen a decreasing trend since 2010 to 2013 except in 2014. However in 2015, 19.8% fewer surgeries were conducted compared to 2014.

Figure 52: *Trend in Surgical Operations in Oral Health Directorate (2011-2015)*



◇ *Priority Activity 5*

CONDUCT OPERATIONAL RESEARCH INTO EMERGING DISEASES

At the end of 2015, the following research activities were at various stages:

Auto transplantation of impacted maxillary canine into the occlusal setting of the maxillary arch – ***completed and submitted for publication***

A retrospective study of Ludwig's Angina at the Maxillofacial unit of KATH ***– completed and submitted for publication***

Clinical evaluation of restoration of non-carious cervical tooth surface lesions with tooth coloured restorative material among patients attending Komfo Anokye Teaching Hospital; a three month review – ***Ongoing***

DIRECTORATE OF ANAESTHESIA AND INTENSIVE CARE

14

The Anaesthesia and Intensive care directorate runs specialist anaesthetic care services by managing emergencies of acute and chronic pain, including cardiopulmonary resuscitation. It also runs Out-Patient section which operates a pre-operative anaesthesia clinic and an inpatient section that manages the intensive care and theatre recovery units.

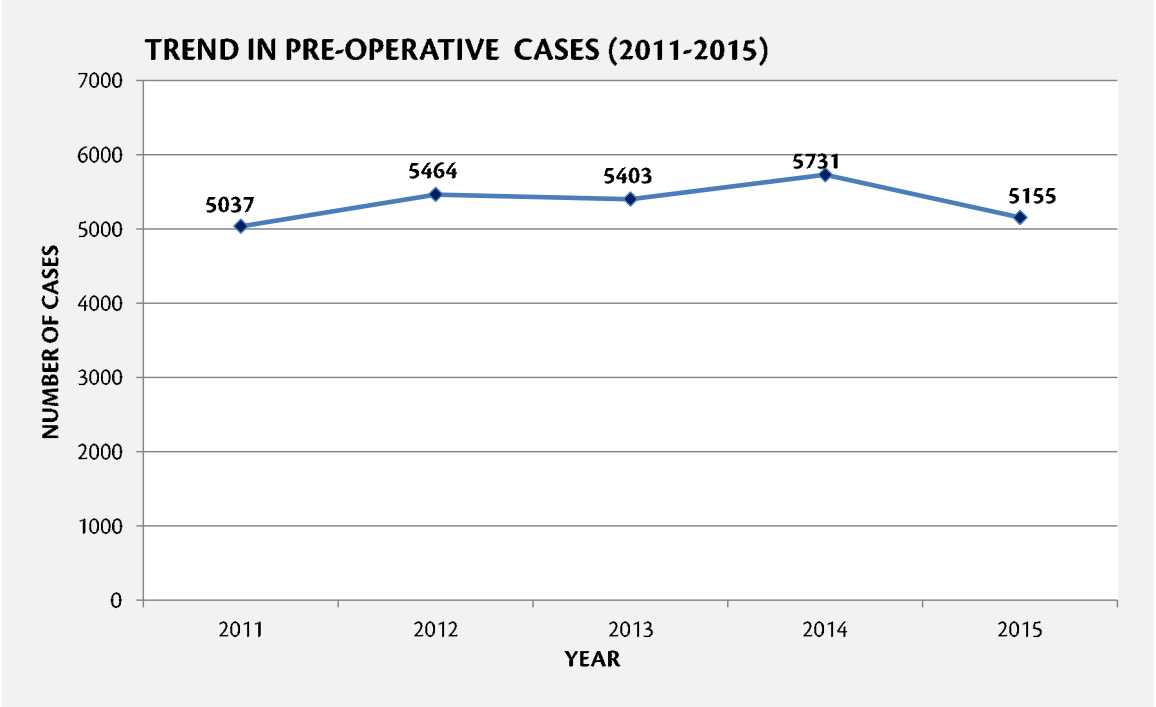
◇*Priority Activity 1*

INCREASE THE RANGE OF SPECIALIST SERVICES

PRE-OPERATIVE CLINIC

In 2015, a total of 5,155 patients for elective surgery were seen at the pre-operative clinic. This represents 92.0% of the 5,603 eligible cases. The cases seen in 2015 were 576 fewer than the numbers recorded in 2014. The trend over the five-year period has been fluctuating.

Figure 53: *Trend in Pre-Operative Cases in Anaesthesia Directorate (2011-2015)*



INTENSIVE CARE AND THEATRE RECOVERY SERVICES

The directorate manages both the intensive care and theatre recovery units of the hospital.

CRITICAL CARE

A total of 221 critically ill patients were managed in the year under review. This depicts 73.7% of the projected target for the year. The trend of critical care has been inconsistent from 2011. The directorate's output was about 96.5% of the previous year's performance.

ADMINISTRATION OF ANAESTHESIA

A total of 10,324 patients underwent various forms of anaesthesia during 2015. This represents 86.0% of the projected 12,000 patients to be anaesthetized. The directorate anaesthetized 15.4% fewer patients as compared to 2014. A similar trend, as was the case for the management of critical care patients, was observed over the five year period for the number of patients receiving anaesthesia. (Figure 55)

Figure 54: *Trend of Critical Care Patients Managed in Anaesthesia Directorate (2011-2015)*

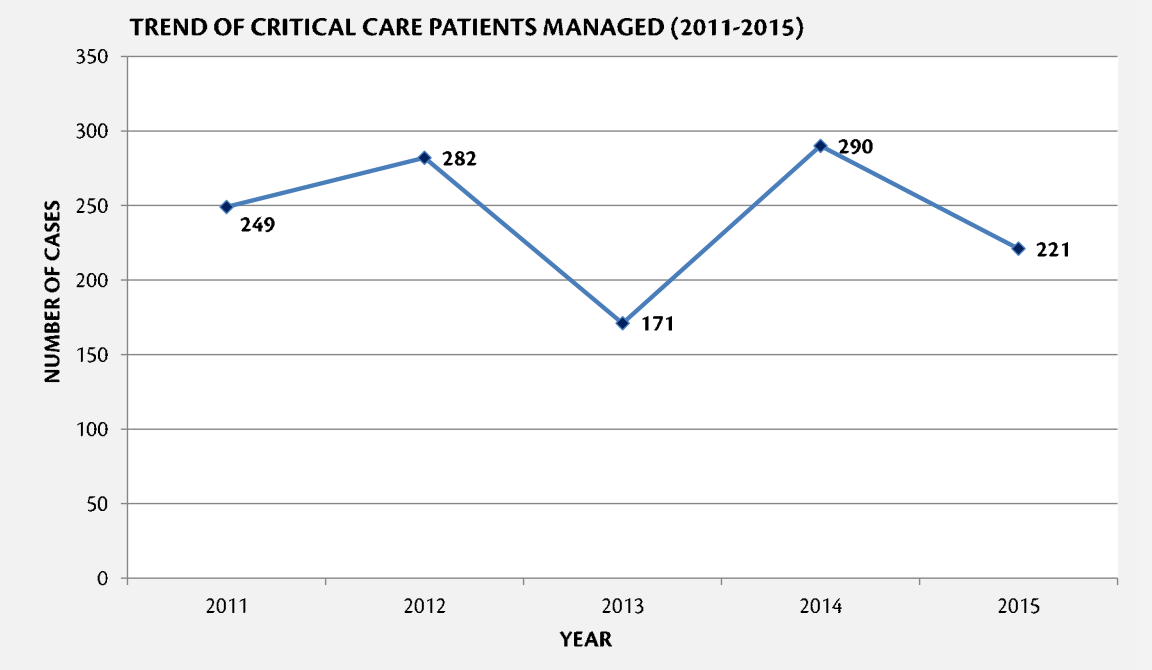
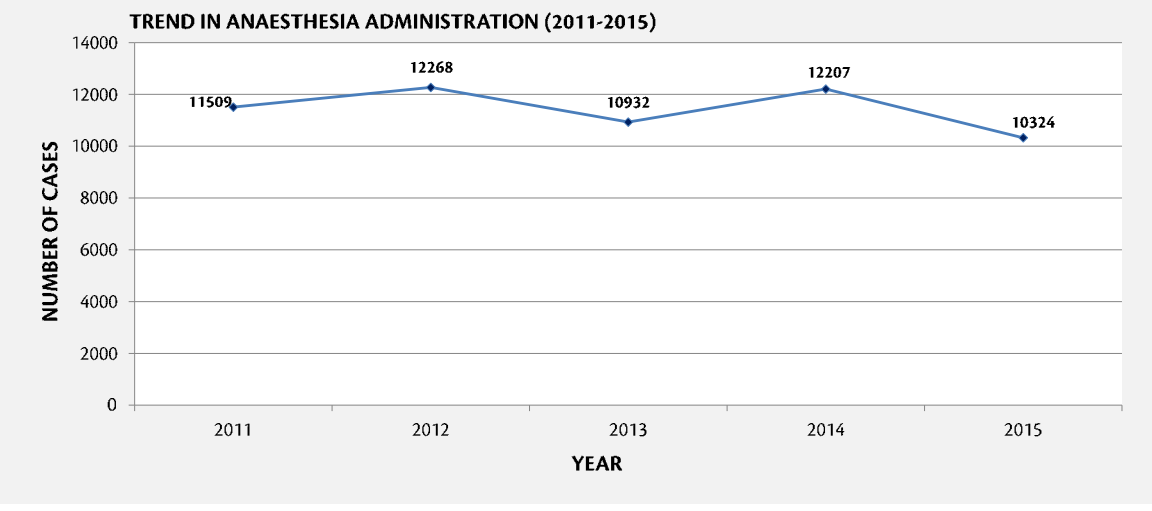


Figure 55: *Trend in Anaesthesia Administration (2011-2015)*



POST-OPERATIVE CARE

The directorate managed a total of 9,962 patients post-operatively in 2015. This was 83.0% of the projected target of 12,000 patients to be managed. The trend of post-operative care shows a general decline in patient numbers over the five year period with the exception of 2012.

ANAESTHETIC ACTIVITIES BY THEATRE

In 2015, the highest proportion of anaesthetic procedures was undertaken at the A1 theatre (35.0%). The Polyclinic theatre recorded the least (1,056 representing 10.2%). General Anaesthesia was the commonest form of anaesthesia administered accounting for 53.7% of all anaesthesia administered.

Figure 56: *Trend in Post-operative Cases in Anaesthesia Directorate (2011-2015)*

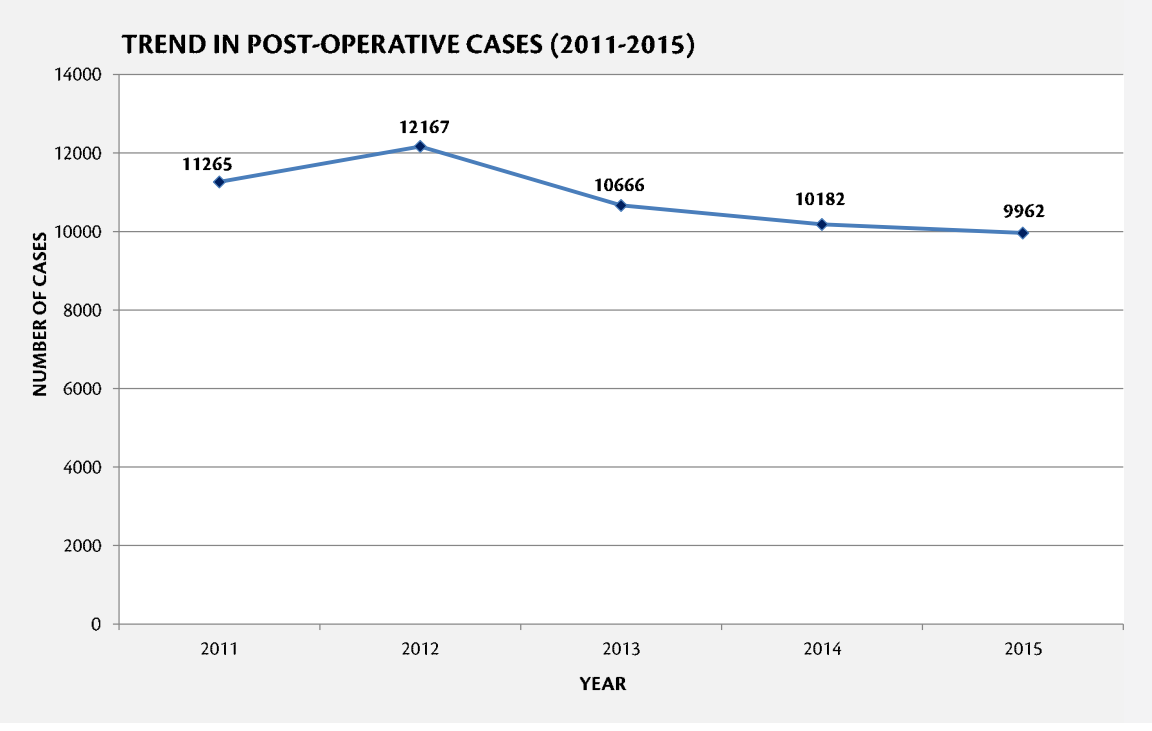


Table 26: *Anaesthetic Activities by Theatre, 2015*

THEATRES	GENERAL	SPINAL	INFILTRATION	REGIONAL BLOCK	TOTAL
Polyclinic Theatre	1,043	-	13	-	1,056
Main Theatre	2,261	590	100	-	2,951
A1 Theatre	897	2,721	3	-	3,624
A & E Theatre	1,354	1,013	201	**143**	2,711
TOTAL	**5,555**	**4,324**	**263**	**143**	**10,342**

◇ *Priority Activity 2*

SUSTAIN ACTIVITIES TO REDUCE MORTALITIES, ESPECIALLY MATERNAL AND NEONATAL DEATHS

A total of 48 weekly clinical and quality assurance meetings were held in 2015. In addition, there were 10 mortality and critical incident meetings held by the directorate.

TREND IN MORTALITY

A total of 217 deaths were recorded by the directorate in the year under review.

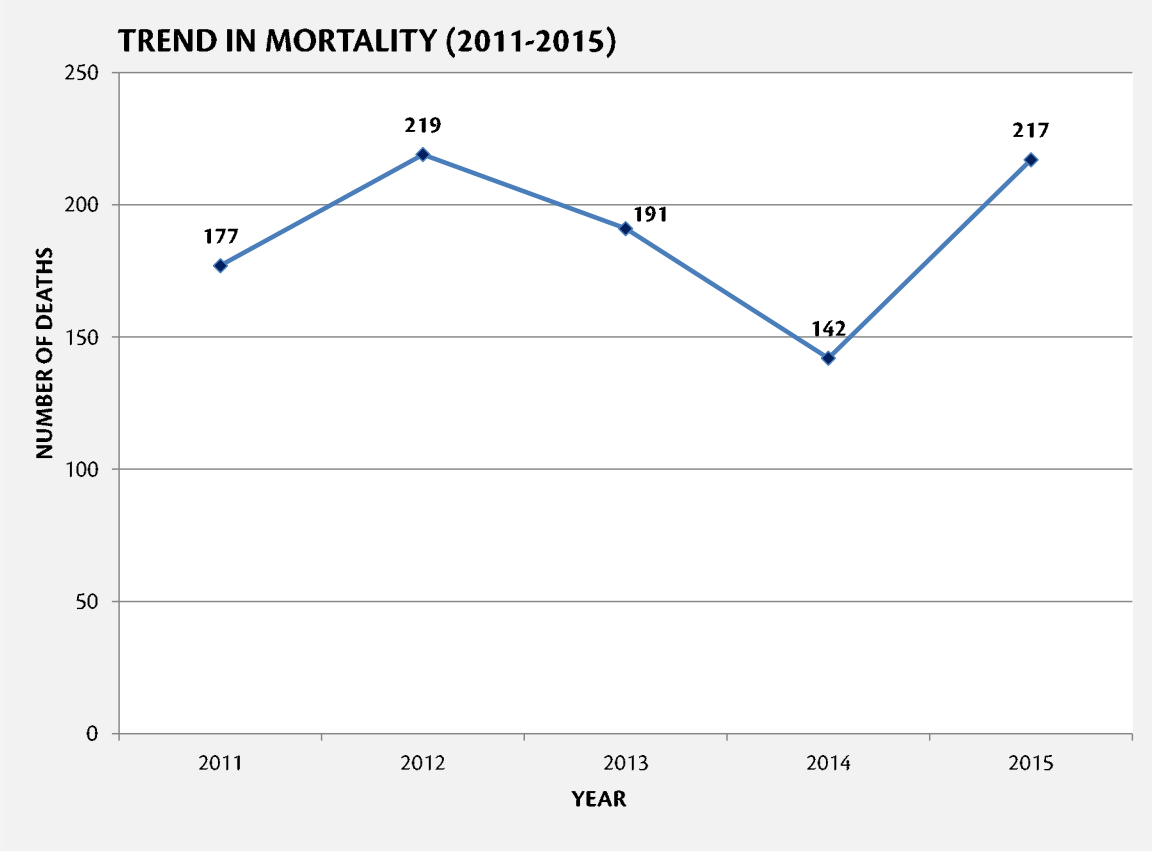
◇ *Priority Activity 13*

SUPPORT TRAINING OF STAFF

In order to facilitate work and build its capacity to embrace new challenges, the following activities were undertaken by the directorate;

- Three (3) refresher courses were held for Recovery ward Nurses.
- Ten (10) staff participated in the Annual Update in Anaesthesia Conference.
- Five (5) Staff attended Update Conference at Koforidua.
- Three (3) Doctors attended refresher course in Anaesthesia.
- Three (3) Staff were sponsored for B.Sc. Physician Assistantship in Anaesthesia at KNUST
- Two (2) staff were sponsored for critical care nursing.
- Three (3) staff were sponsored for anaesthesia course.

Figure 57: *Trend in Mortality in Anaethesia Directorate (2011-2015)*



DIRECTORATE OF OBSTETRICS & GYNAECOLOGY

The mission of the Directorate of Obstetrics and Gynaecology is to provide high quality women's health care in a user-friendly environment while conducting teaching, training and research.

The directorate runs Out-patient sections in Family Planning, Obstetrics and Gynaecology services and neonatal sickle cell screening. There are four labour wards;

- A1 general labour ward
- A&E Special Ward
- A5 staff delivery
- High Dependency Unit

There are also four operating theatres for emergency and elective surgeries; A1 Theatre and A&E special ward theatre are dedicated for mainly emergency surgeries. The rest are for elective and minor surgeries. The directorate also provides ultrasound scans, foetal assessments, and antenatal, postnatal, sexual and reproductive health counselling as well as pharmacy services.

OUR LABOUR WARDS

ONE
A1 General Labour Ward

TWO
A&E Special Ward

THREE
A5 Staff Delivery

FOUR
High Dependency Unit

◇*Priority Activity 1*

INCREASE THE RANGE OF SPECIALIST SERVICES

ULTRASOUND SERVICES

During the year under review 4344 cases were seen as against 3955 cases in the previous year. The ultrasound centre has capacity to scale up services to generate more revenue if the required support is provided. This assertion is true to the extent that cases and respective revenues have been increasing over the years due to the initiatives introduced by the directorate.

CERVICAL SCREENING, LAPAROSCOPY AND COLPOSCOPY SERVICES

Forty-one (41) patients received laparotomy procedures. Five Hundred and Twenty-four (524) patients went through cervical screening tests. Out of that number, eight (8) were given colposcopy procedures.

FOETAL ASSESSMENT CENTRE

The centre was able to monitor Seven Hundred and Forty-five (745) foetuses. This service provided to clients enhanced mothers and foetus management. Plans are underway to improve services and revenue in the ensuing year.

OUT – PATIENT (OPD) SERVICES

The OPD clinics of the directorate (Consulting room 8 and Family Planning) recorded a total of 37,338 cases in 2015. This represents 91.1% of the projected target for the year under review.

TREND ANALYSIS OF OPD UTILIZATION

The OPD attendance showed a continuous decline from 2011 to 2015. In 2015, there were 2.34% fewer admissions as compared to 2014 (Figure 58).

IN-PATIENT SERVICES

The directorate has a total of six (6) wards, four (4) of which are labour wards. In 2015, the directorate recorded 14,864 in-patients, representing 82.6% of the projected target for the year. The bed complement for the directorate was 157. The average turnover per bed was 92 patients, compared to 90 patients for the previous year. In addition the directorate also witnessed a decline in the average length of stay from 4 days in 2014 to 3 days in 2015. Over the period, the average daily bed occupancy was 135.

TREND ANALYSIS OF IN-PATIENT SERVICES

The directorate has been experiencing a consistent decline in admissions over the five year period. In 2015, the directorate recorded 2.8% fewer admissions than the previous year.

Figure 58: *Trend in OPD Services in Obstetrics & Gynaecology Directorate (2011-2015)*

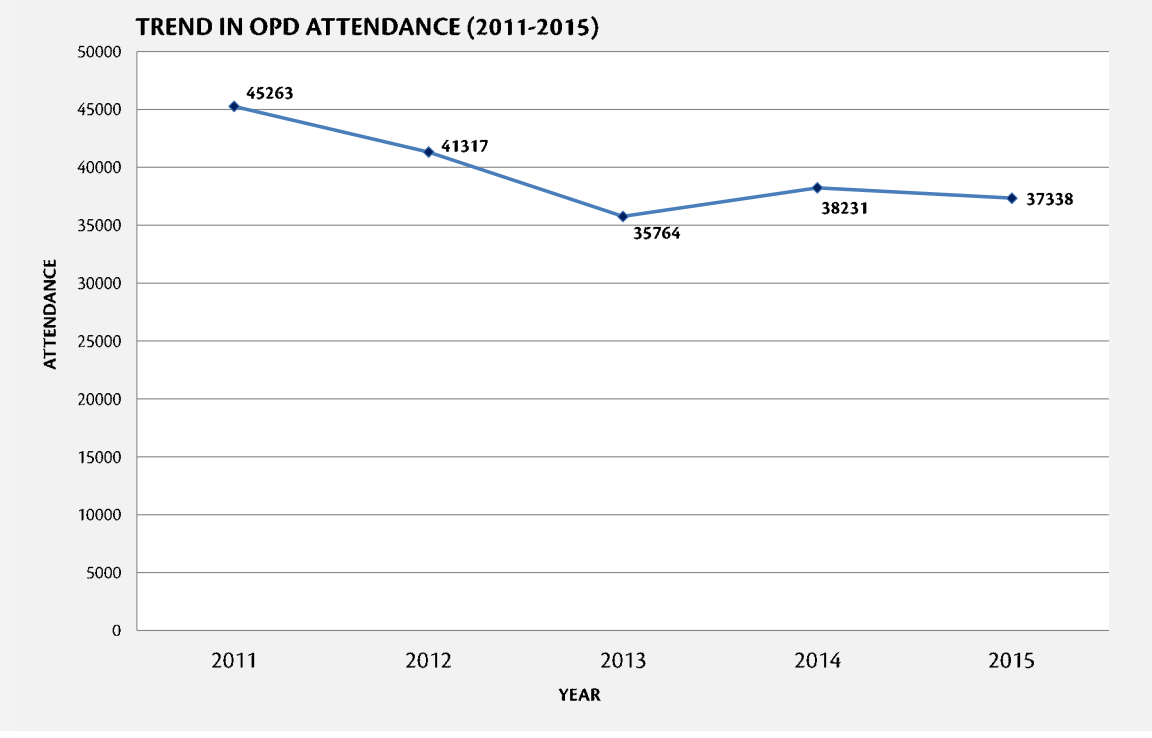
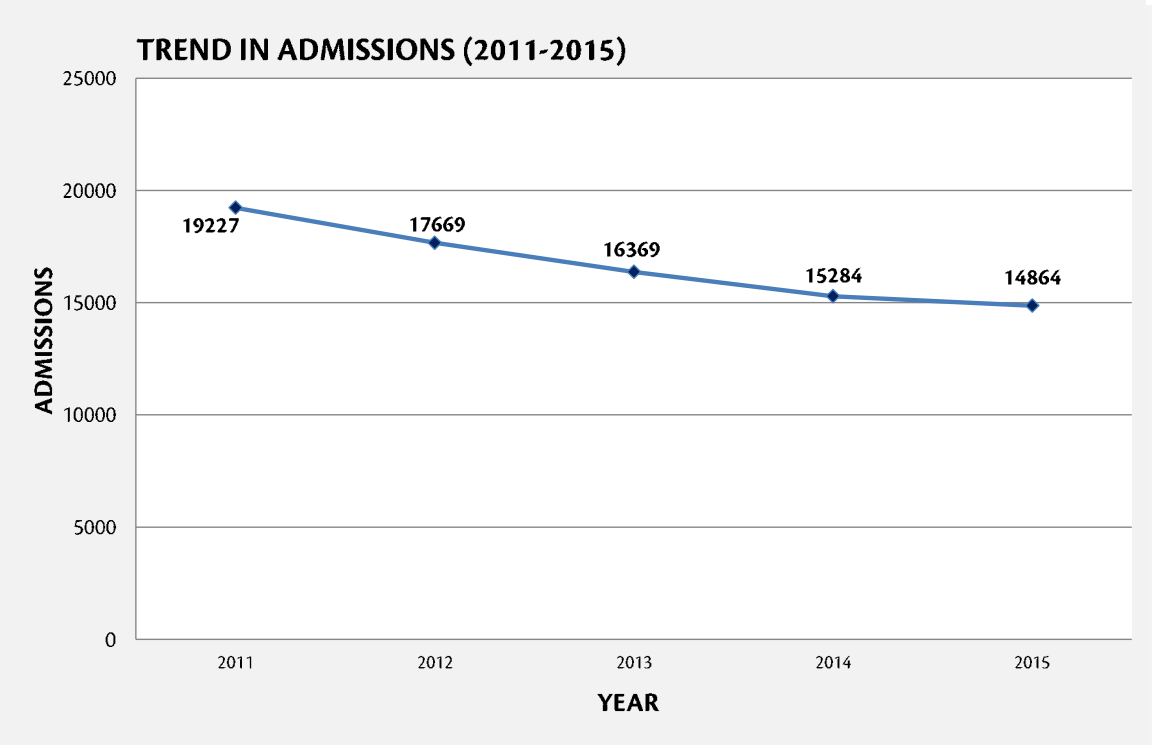


Figure 59: *Trend in Admissions in Obstetrics & Gynaecology Directorate (2011-2015)*



TOP TEN CAUSES OF ADMISSIONS IN 2015

The number one cause of admission was Eclampsia/Pre-Eclampsia, accounting for 7.4% of all admissions in the year 2015. The top ten causes of admission contributed to 22.0% of all admissions in the directorate for the year under review.

Table 27: *Top Ten Causes of Admissions in Obstetrics & Gynaecology Directorate, 2015*

DISEASE CATEGORY	NUMBER OF CASES	PROPORTION OF TOTAL NUMBER OF ADMISSIONS
1. Eclampsia / Pre-Eclampsia	1,092	7.4%
2. Abortions	609	4.1%
3. Haemorrhage	423	2.9%
4. Hypertension related Complications	353	2.4%
5.Leiomyoma of Uterus	271	1.8%
6. Ectopic Pregnancy	211	1.4%
7. Malignant Neoplasm of Female Genital organs	167	1.1%
8. Anaemia in Pregnancy	57	0.4%
9. Female Pelvic Inflammatory Disease	45	0.3%
Malaria in Pregnancy	45	0.3%
Others	11,591	78.0%
TOTAL	**14,864**	**100.0%**

OBSTETRICS SERVICES

In the year under review, a total of 9,653 deliveries were recorded in the directorate, and total of 9,651 live births and 384 still births. Table 28 presents the details of obstetrics services from 2011 to 2015.

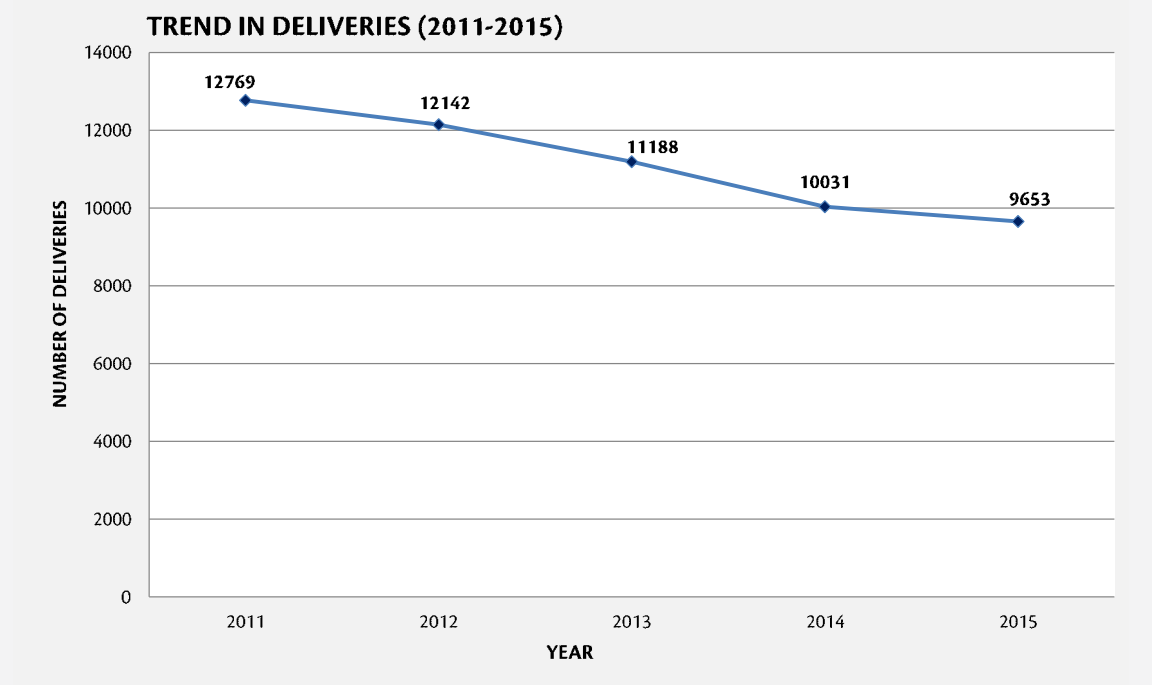
DELIVERIES

In 2015, a total of 9,653 deliveries, representing 87.8% of the projected target for the year was achieved. The pattern in deliveries over the past five years shows a consistent decline. In the year under review, 3.8% fewer deliveries were recorded in the directorate compared to the previous year.

Table 28: *Trend in Obstetric services in Obstetrics & Gynaecology Directorate (2011-2015)*

INDICATOR	2011	2012	2013	2014	2015
Total deliveries	12,679	12142	11,188	10,031	9,653
Male	6,922	6,611	5,643	4,869	5,042
Female	6,113	5,922	5,962	4,707	4,993
Still Births	352	425	460	408	384
Live Births	12,683	12,108	11,145	9,168	9,651
Weights Over 2.5kg	8,863	7,696	7,324	6,525	6,571
Weights Below 2.5kg	4,173	4,837	4,281	3,051	3,464
Abortions (EOU)	1340	1069	920	641	-
Caesarean Section	3,406	3,672	3,652	3456	3357
Caesarean Section Rate	2,839 per 10,000 Deliveries	3,024 per 10,000 Deliveries	3,264 per 10,000 Deliveries	3,445 per10,000 Deliveries	3,478 per 10,000 Deliveries

Figure 60: *Trend in Deliveries in Obstetrics & Gynaecology Directorate (2011-2015)*



SURGICAL OPERATIONS

In 2015, a total of 6,609 surgical cases were conducted. This represents 77.8% of the projected target for the year. In addition, the 2015 surgical performance was 9.7% lower than the 2014 performance for the directorate. Major surgeries in the year accounted for 60.8% of all surgeries in the directorate.

TREND IN THEATRE UTILIZATION

The directorate recorded a continuous decline in minor surgeries over the five year period. However, major surgeries increased from 2011 to 2013 but have since declined.

Figure 61: *Distribution of Surgical Operations in Obstetrics & Gynaecology Directorates*

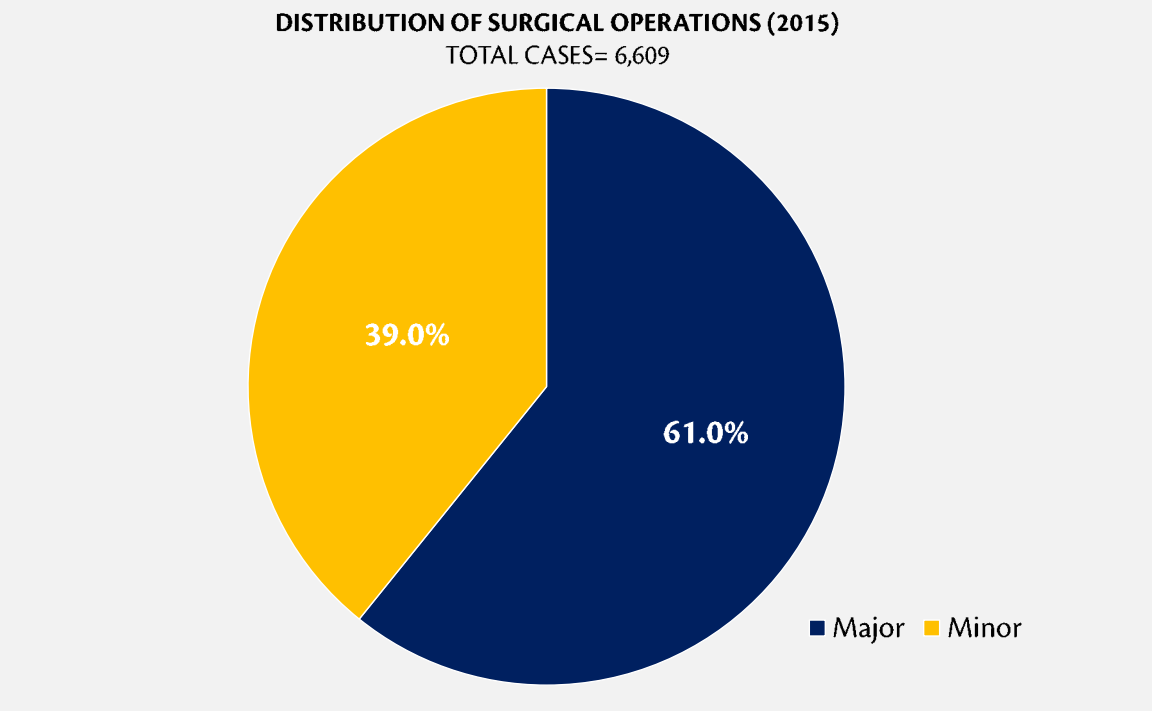
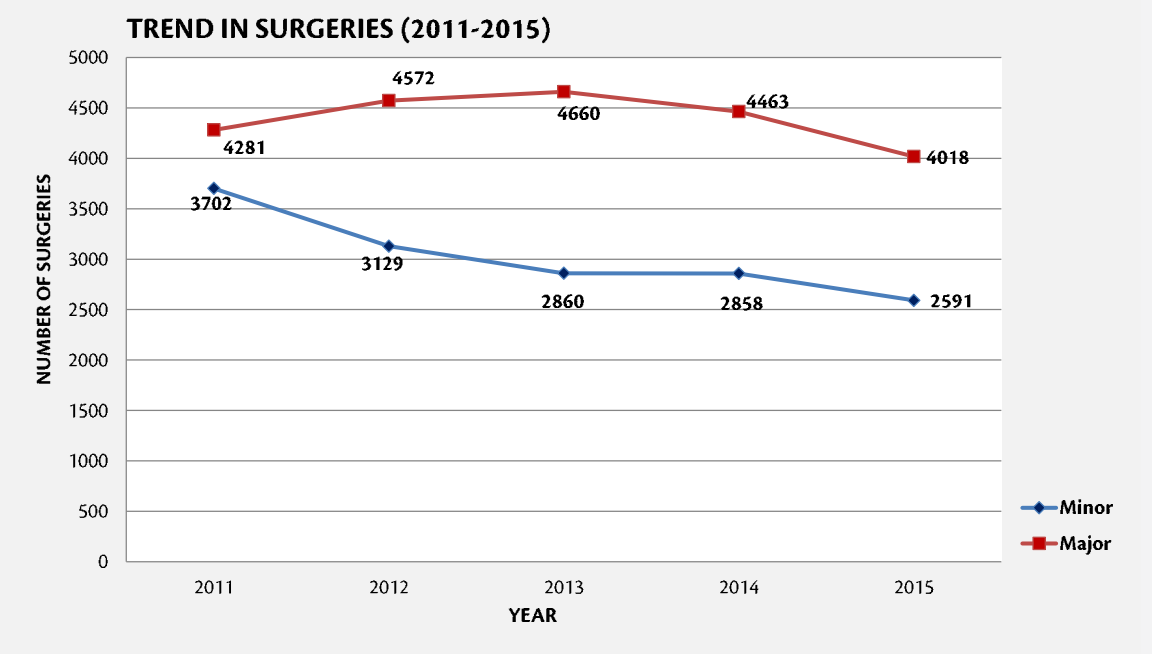


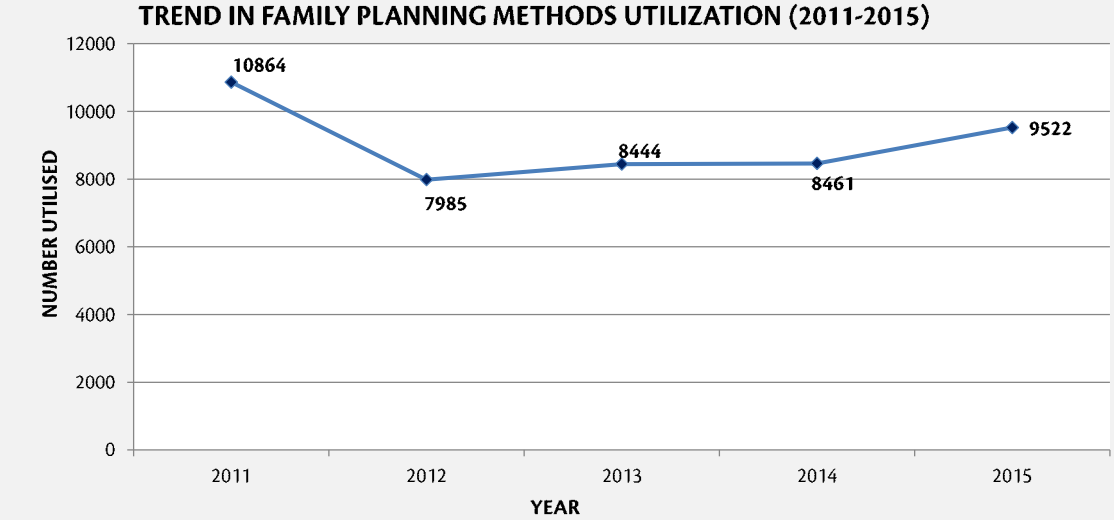
Figure 62: *Trend in Surgeries in Obstetrics & Gynaecology Directorate (2011-2015)*



FAMILY PLANNING

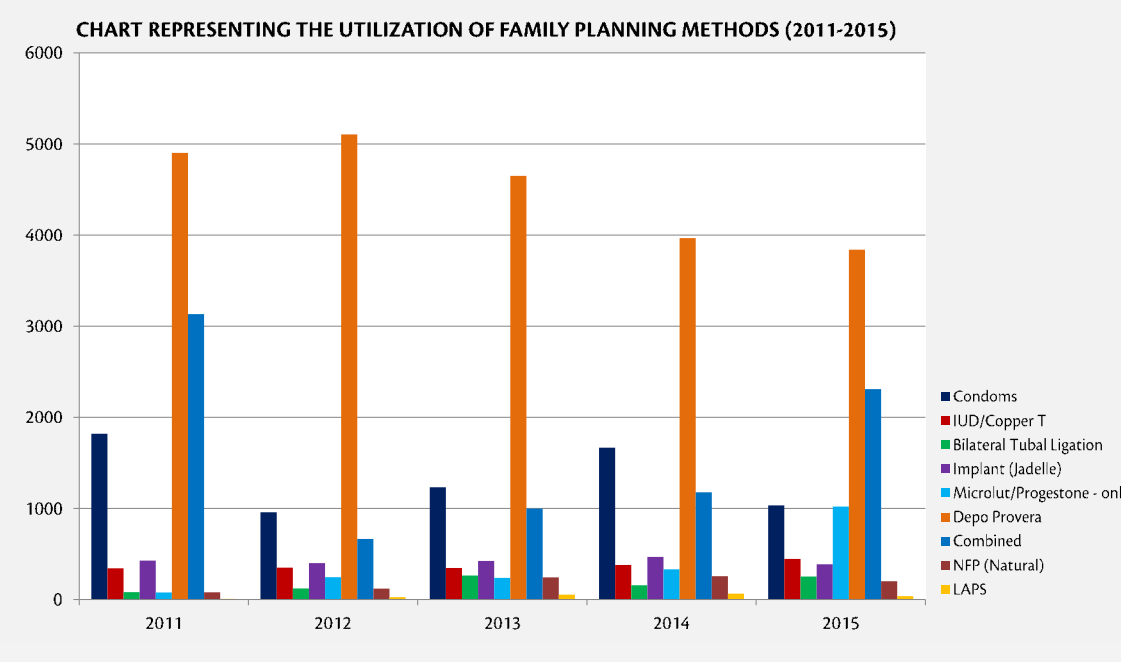
In 2015, 9522 people patronized the various family planning methods in the directorate. This represents a 12.54% increase from the previous year.

Figure 63: *Trend in Family Planning Methods Utilisation in Obstetrics & Gynaecology (2011-2015)*



Over the years, Depo Provera has been the most utilized method with the exception of 2015. LAPS continue to be the least patronised form of contraception throughout the period. The figure below represents family planning methods utilization.

Figure 64: *Trend in Various Family Planning Methods in O & G Directorate (2011-2015)*



◇ *Priority Activity 2*

SUSTAIN ACTIVITIES TO REDUCE MORTALITIES, ESPECIALLY MATERNAL AND NEONATAL DEATHS

In 2015, ten (10) monthly maternal mortality meetings were conducted and all the deaths that occurred within the period were audited. One outreach visit was carried out during November – December 2015, to selected peripheral hospitals under the Millennium Development Goals Accelerated Framework (MAF) Project. The support rendered to these facilities also culminated in strengthening referral structures between the hospital and the facilities visited.

TREND ANALYSIS OF MORTALITIES

Mortality has seen a decline in the directorate since 2013, however, there has been a rise from 142 deaths in 2014 to 154 deaths in 2015. (Figure 65)

TREND IN MATERNAL DEATH RATE

From 2011-2015, there has been a consistent decline in maternal mortality rates with the exception of 2012. Maternal mortality rate dropped from 1087 per 100,000 live births in 2014 to 1057 per 100,000 live births in 2015.

Figure 65: *Trend in Mortality in Obstetrics & Gynaecology Directorate (2011-2015)*

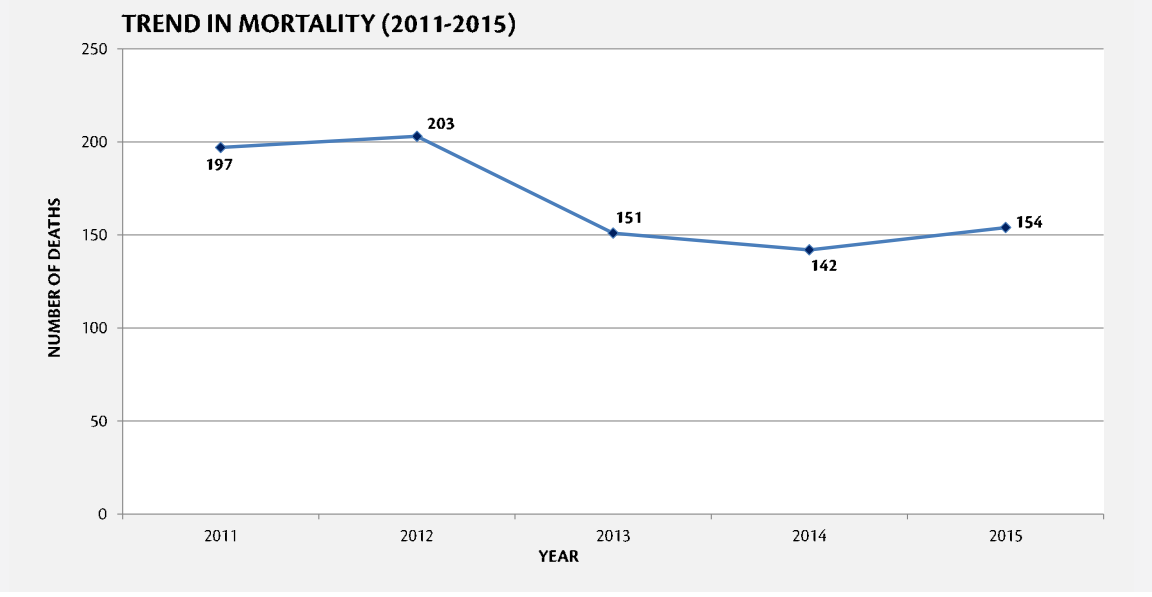
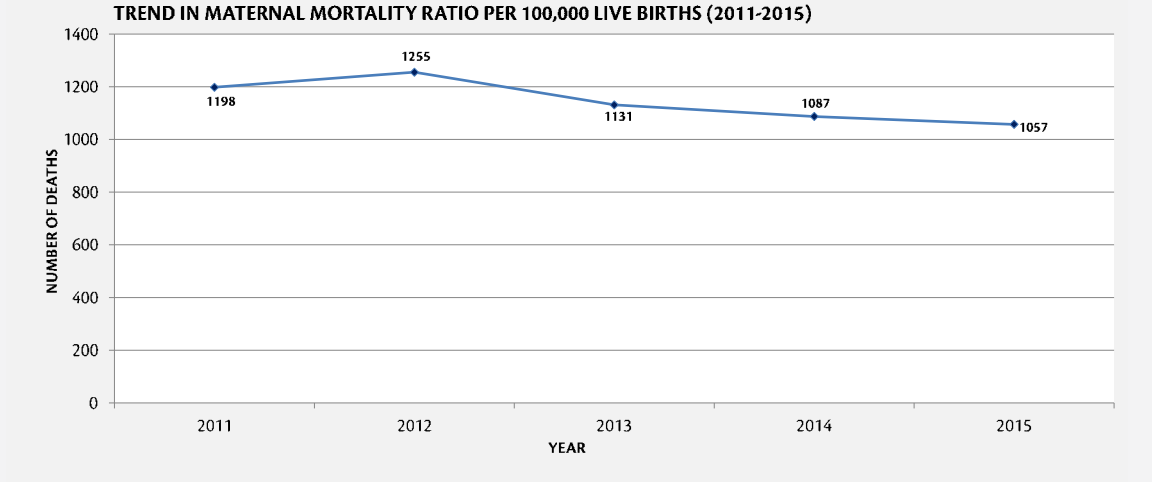


Figure 66: *Trend in Maternal Mortality Ratio (2011-2015)*



TOP TEN CAUSES OF MATERNAL DEATHS

In 2015, Hypertension – Related disease (Eclampsia/pre-Eclampsia and Haemorrhage) were the two leading causes of maternal deaths, contributing 56.9% of all maternal deaths in the directorate.

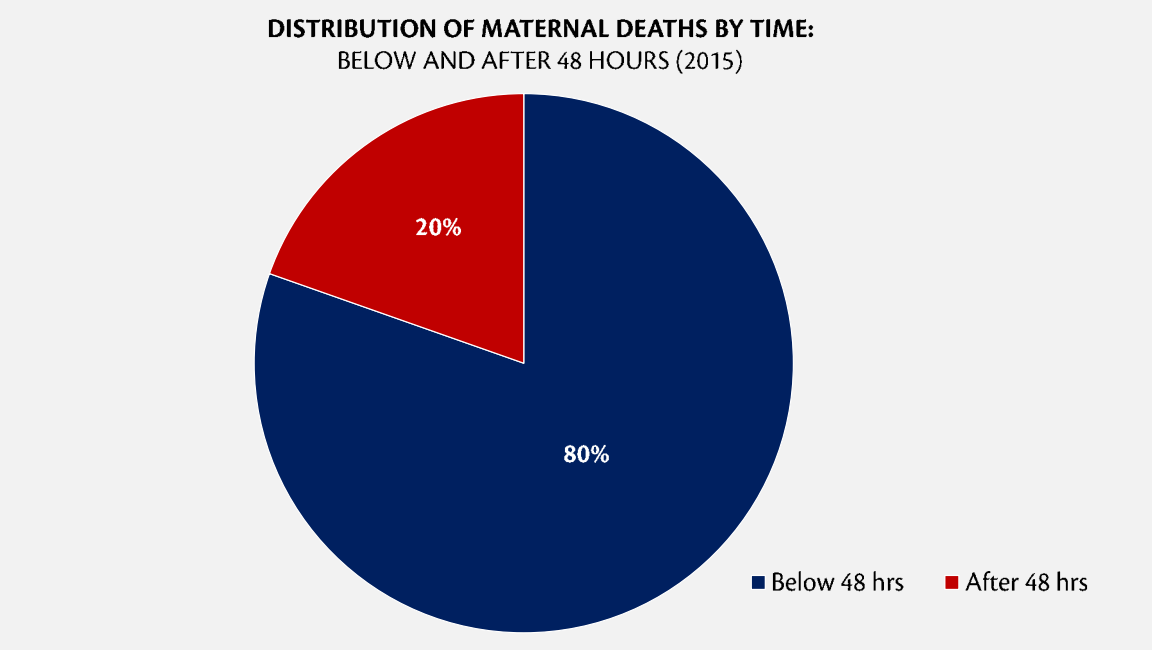
DURATION OF ADMISSION PRIOR TO MATERNAL DEATHS

A total of 82 maternal deaths occurred within 48 hours of admission accounting for 80.4% of all maternal mortalities in the directorate. The remainder of deaths (20) occurred after 48 hours of admission. (Figure 67)

Table 29: *Top Ten Causes of Maternal Deaths in Obstetrics & Gynaecology, 2015*

DISEASE CATEGORY	NUMBER OF DEATHS	PROPORTION OF TOTAL NUMBER OF DEATHS
HPT-Related disease (Eclampsia/Pre-Eclampsia)	36	35.3%
Haemorrhage	22	21.6%
Abortion Related	8	7.8%
Meningitis	6	5.9%
Placenta Abruption	5	4.9%
Puerperal Sepsis	5	4.9%
Pulmonary Embolism	5	4.9%
Lobar Pneumonia	4	3.9%
Severe Anaemia	3	2.9%
SCD Related	3	2.9%
Others	5	4.9%
TOTAL	102	100.0%

Figure 67: *Duration of Admission prior to Maternal Death in O & G Directorate (2015)*



◇ *Priority Activity 13*

SUPPORT TRAINING OF STAFF

The directorate made conscious efforts to improve the quality of clinical care services in the year under review. In line with achieving this, the directorate embarked on various training courses. All house officers undertook training on comprehensive abortion care. In November, 2015, thirty-seven (37) doctors and nurses went through maternal mortality audit guidelines training. Some doctors also received training on episiotomy. Fifteen (15) doctors enrolled for the programme at the Ghana College of Physicians and Surgeons, and 13 doctors passed out. Two specialist doctors also received new skills on the management of fistula in Tanzania.

The Family Planning Unit also organized the following training programmes;

- Clinical Skills Procedures for community health nurses, midwives and nurses.
- Training on insertion and removal of Implanon NXT for fifteen midwives
- Implant (Implanon classic, Implanon NXT and Jadelle) insertion and removal training.

ONCOLOGY DIRECTORATE

16

The Directorate provides specialized care to patients in areas ranging from primary, secondary and tertiary prevention of cancer. The directorate provides outpatient services namely:

- Haematology
- Medical oncology
- Radiation oncology

Teletherapy, brachytherapy and chemotherapy treatments are also provided to patients. The staff strength of the directorate stood at fifty-one (51) at the end of the year.

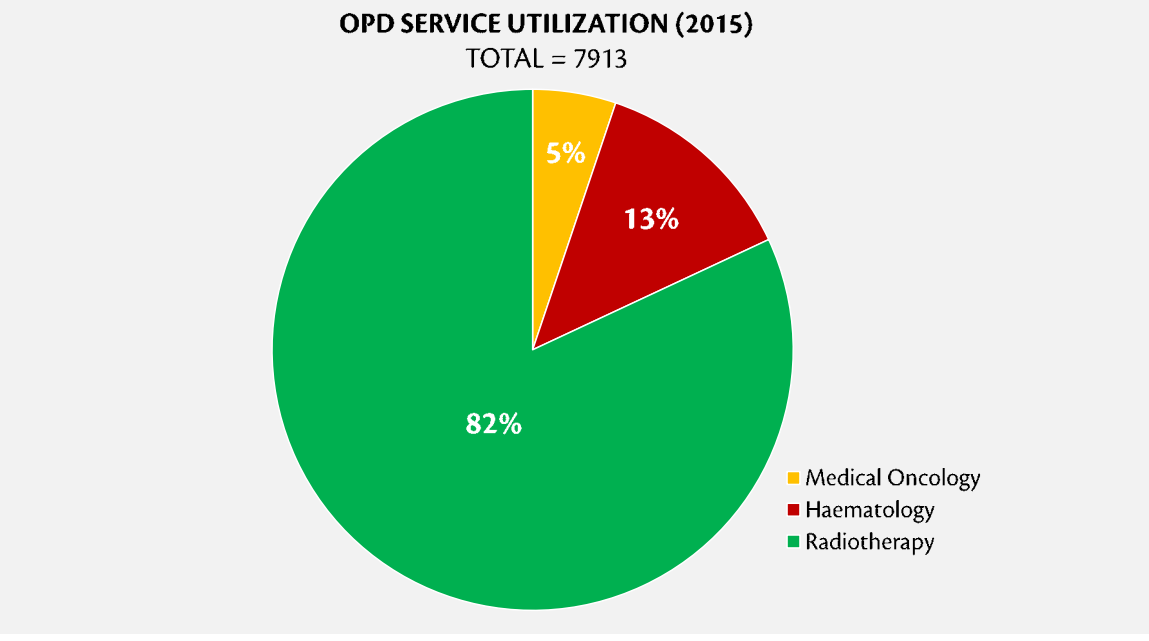
◇*Priority Activity 1*

INCREASE THE RANGE OF SPECIALIST SERVICES

OUT – PATIENT SERVICES

In 2015, a total of 7,913 outpatients were seen. This represents a 79.1% achievement of the planned target of 10,000 out-patients. In the year under review, 5.3% more cases were seen compared to 2014. Radiotherapy constituted 81.0% of all out-patients in the year. (Figure 68)

Figure 68: *OPD Services Utilization in Oncology Directorate (2015)*



TREND IN OPD UTILIZATION 2011 – 2015

OPD attendance for the directorate declined from 2011 to 2013. However, there was a rise in 2014 and 2015.

TREATMENT OPTIONS FOR CANCER CONDITIONS

The Directorate offered these treatment options over the period:

- Teletherapy sessions
- Chemotherapy sessions
- Brachytherapy sessions

Teletherapy accounted for 69.78% of all treatment given by the directorate in 2015. However, the trend for this treatment shows a decline from 2011 to 2015 except for 2013. With the exception of 2014, the number of chemotherapy sessions has shown a consistent rise over the five-year period. In 2015, a total of 497 more sessions were conducted as compared to 2014. Brachytherapy continues to account for the lowest option of cancer treatment administered at the directorate. It accounted for 1.0% of all treatment options in the year 2015, a decline of 29.5% compared to 2014.

Figure 69: *Trend in OPD Attendance in Oncology Directorate (2011-2015)*

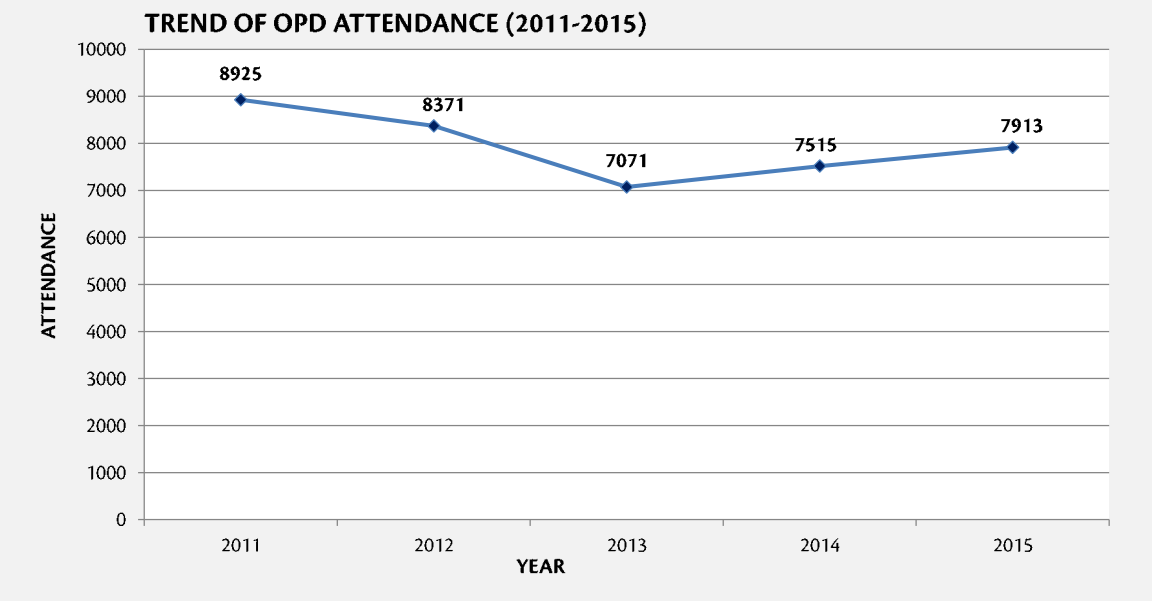
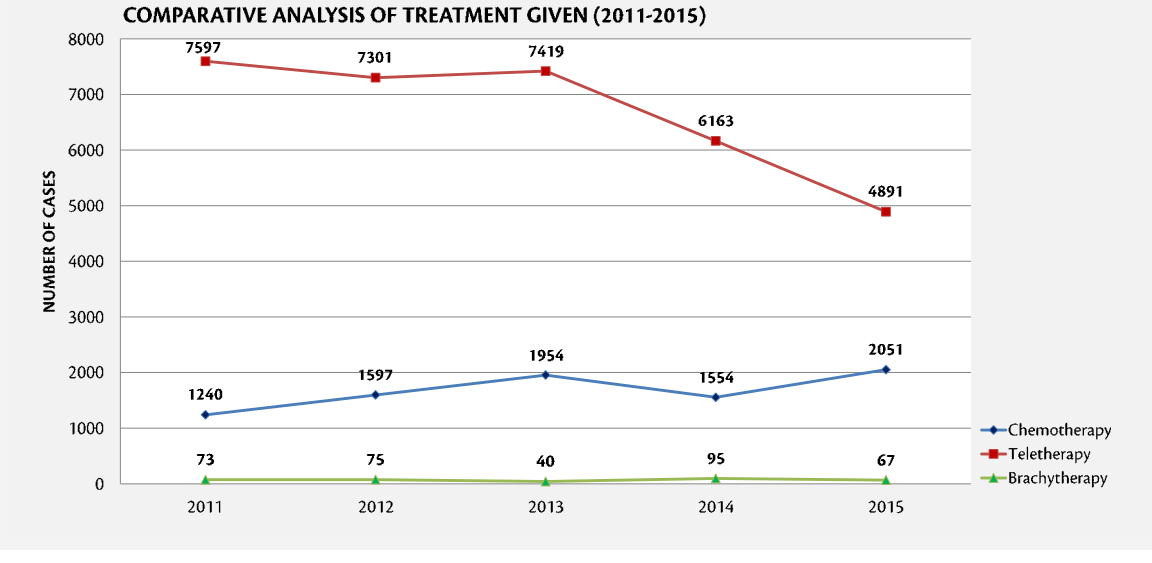


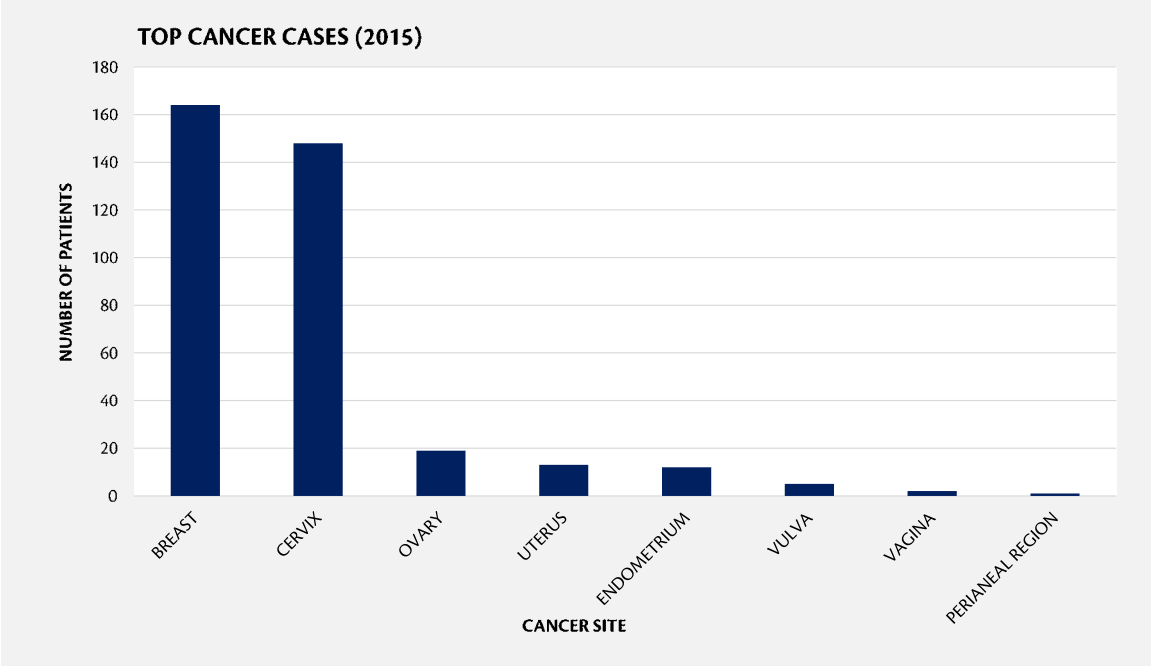
Figure 70: *Comparative Analysis of treatment given in Oncology Directorate (2011-2015)*



TOP CANCERS CASES FOR 2015

In 2015, Breast and cervical cancers constituted 85.7% of all common cancers. Vaginal and perineal region cancers were among the least cases of cancers reported.

Figure 71: *Top Cancer Cases (2015)*



◇ *Priority activity 7*

SUPPORT DISTRICT AND REGIONAL HOSPITALS IN THE NORTHERN SECTOR OF GHANA, BY WAY OF PROVIDING OUTREACH SERVICES

In 2015, the directorate organized outreaches to KNUST (Queens Hall), Ladies of the Cross International Ministry, Light House Baptist Church and Benim community in Mampong. A total of 550 people were screened in the year and 11 home visits were conducted.

◇ *Priority Activity 13*

SUPPORT TRAINING OF STAFF

Staff undertook various training and development programmes; one nurse completed a programme in MSc Oncology and Palliative Nursing, another nurse in BSc Oncology Nursing. In addition, one nurse enrolled in palliative nursing at Ghana College of Nursing and Midwifery (GCNM). All Nurses attended a Workshop on Hormonal Therapy. Four Doctors are training in radiation oncology at Ghana College of Physicians and Surgeons (GCPS).Currently, one doctor is undergoing training in Nuclear Medicine in South Africa. (part of efforts to achieve ***Priority Activity 9: Expand Oncology centre to include Nuclear Medicine Treatment and Diagnostic Unit***)

◇ *Priority Activity 5*

CONDUCT OPERATIONAL RESEARCH INTO EMERGING DISEASES

Three research topics were carried out in 2015 in the areas of Imaging, External Beam Radiotherapy and Brachytherapy (Table 30).

Table 30: ***Research Topics Undertaken in Oncology Directorate, 2015***

AREA	TOPIC	STATUS
External Beam Radiotherapy	Applied research on construction of multi-leaf collimator to support external beam radiotherapy (EBRT)	Completed, unpublished
Imaging	Patient dose relationship with exposure parameters in chest X-ray examination in KATH and Agogo Presbyterian Hospital	On-going
Brachytherapy	Interpositional variation in applicator position of patients undergoing low dose rate (LDR) brachytherapy.	On-going

FAMILY MEDICINE DIRECTORATE

17

The Family Medicine Directorate is one of the twelve (12) clinical directorates of the hospital. Before 2014, it was known as the Polyclinic Directorate. The directorate offers family medicine, physiotherapy and general clinical services.

The directorate runs a 24-hour Out-Patient service to clients. Other services include Medical Examination, In-patient services, Staff clinic, Chronic Care, Palliative Care, Casualty procedures and Specialist Family Medicine.

OUR SERVICES

- 24-Hour Out-Patient Services
- Medical Examination
- In-Patient Services
- Staff Clinic
- Chronic Care
- Palliative Care
- Casual Procedures
- Specialist Family Medicine

◇*Priority Activity 1*

INCREASE THE RANGE OF SPECIALIST SERVICES

The directorate aimed to improve provision of 24hr primary and specialized care services in Family Medicine to all clients. The directorate also provides specialized Physical Therapeutics' care for outpatients and inpatients to promote and restore health.

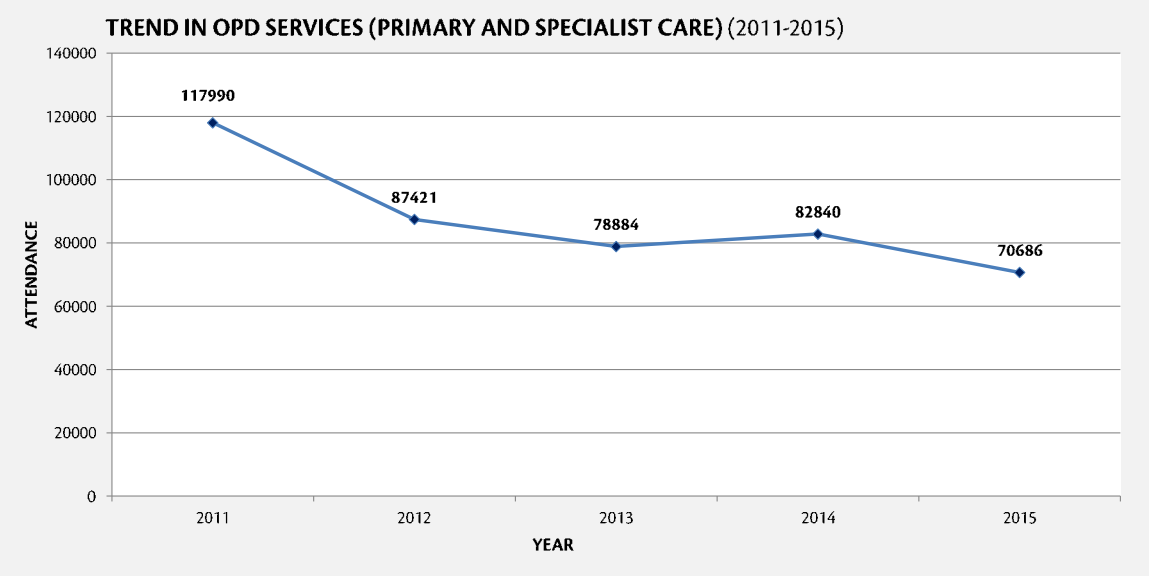
OUT-PATIENT SERVICES (PRIMARY AND SPECIALIST CARE)

The directorate provided care to a total of 70,686 cases, comprising 61,616 primary care cases and 9,070 specialist consultations (chronic care clinic) in 2015. This performance constitutes 85.6% and 113.4% of the planned targets for primary and specialist care consultations respectively.

TREND ANALYSIS IN OPD SERVICES (PRIMARY AND SPECIALIST CARE)

There was a consistent decline in OPD attendance from 2011 to 2015, with the exception of 2014. The directorate saw about 14.7% fewer cases in 2015 as compared to the previous year.

Figure 72: *Trend in OPD services (Primary and Chronic Care) in Family Medicine Directorate (2011-2015)*



OTHER OPD SERVICES

The directorate performed 376 medical examinations, which is 50.4% above the projected target for the year. A total of 135 casualty procedures were carried out in the year under review, representing 27.0% of the planned target for 2015. The directorate also initiated the provision of palliative care services for 28 patients, out of a target of 50 patients for the year.

TOP TEN CASES SEEN IN FAMILY MEDICINE DIRECTORATE

Hypertension was the leading cause for OPD attendance in 2015, accounting for 10.3% of total OPD attendance. The remaining nine top causes of OPD attendance in the directorate contributed 22.0% of total OPD attendance.

Table 31: *Top Ten Reasons for OPD Attendance in Family Medicine Directorate, 2015*

	DISEASE	NUMBER OF CASES	PROPORTION OF TOTAL OPD ATTENDANCE
1	Hypertension	7242	10.3%
2	Malaria	3493	4.9%
3	Respiratory Tract Infection (RTI)	3146	4.5%
4	Diabetes Mellitus	2335	3.3%
5	Musculoskeletal Disorders[2]	1830	2.6%
6	Normal Pregnancy	1676	2.4%
7	Urinary Tract Infection (UTI)	1346	1.9%
8	Gastroenteritis/Diarrhoea	594	0.8%
9	Upper GI disorders[3]	569	0.8%
10	Sepsis	558	0.8%
*	Others	47897	67.8%
	TOTAL	**70686**	**100.0%**

2 Refers to Lumber Spondylosis, Musculosketal pain, Osteoarthritis
3 Gastrooesophageal reflex disease, Gastric, Peptic ulcer

TOP TEN REASONS FOR OPD ATTENDANCE (0-12 YEARS)

Respiratory Tract Infection was the leading cause of OPD attendance for children between the ages of 0-12 years with Sickle Cell Disease (SCD) recording the 10th position.

TOP TEN REASONS FOR OPD ATTENDANCE – 13 YEARS AND ABOVE (MALE)

Hypertension was the highest cause of OPD attendance for Males within the ages of 13 years and above and Neuropathy recording the 10th position.

Table 32: *Top Ten Reasons for OPD Attendance (0-12 Years) – Family Medicine Directorate*

	DIAGNOSIS	NO. OF CASES/EPISODES
1	RTI	2,282
2	MALARIA	1,817
3	SEPSIS	558
4	GASTROENTERITIS/DIARRHOEA	427
5	UTI	284
6	ANAEMIA	256
7	DERMATITIS	246
8	CONJUCTIVITIES	206
9	OTITIS MEDIA	190
10	SCD	119

Table 33: *Top Ten Reasons for OPD Attendance 13 Years and Above (Male) in Family Medicine Directorate*

	DIAGNOSIS	NO. OF CASES/EPISODES
1	HYPERTENSION	1,718
2	L.SPOND/MYALGIA/MSP/OSTEOARTHITIS	705
3	DIABETES MELLITUS	599
4	MALARIA	420
5	RTI	256
6	UTI	223
7	GASTRITIS/PEP ULCER/GERD	182
8	LUMBAGO	127
9	ASTHMA	68
10	NEUROPATHY	63

TOP TEN REASONS FOR OPD ATTENDANCE –13 YEARS AND ABOVE (FEMALE)

Hypertension and Diabetes Mellitus recorded the first and second highest OPD attendance for Females within the ages of 13 years and above. Candidiasis/Vaginitis recorded the 10th position.

Table 34: *Top Ten Reasons for OPD Attendance 13 years and above (Female), Family Medicine Directorate*

	DIAGNOSIS	NO. OF CASES/ EPISODES
1	HYPTERTENSION	5,524
2	DIABETES MELLITUS	1,736
3	NORMAL PREGNANCY	1,676
4	MALARIA	1,256
5	L.SPOND/MYALGIA/ OSTEOARTHRITIS	1,125
6	UTI	839
7	ABORTIONS	682
8	RTI	608
9	GASTRITIS/PEP ULCER/GERD	569
10	CANDIDIASIS/VAGINITIS	268

TREND IN ADMISSIONS

Over the five year period (2011-2015), the directorate has experienced a consistent decline in its admissions. In 2015, admissions for the period declined by 10.3% when compared to the previous year's performance.

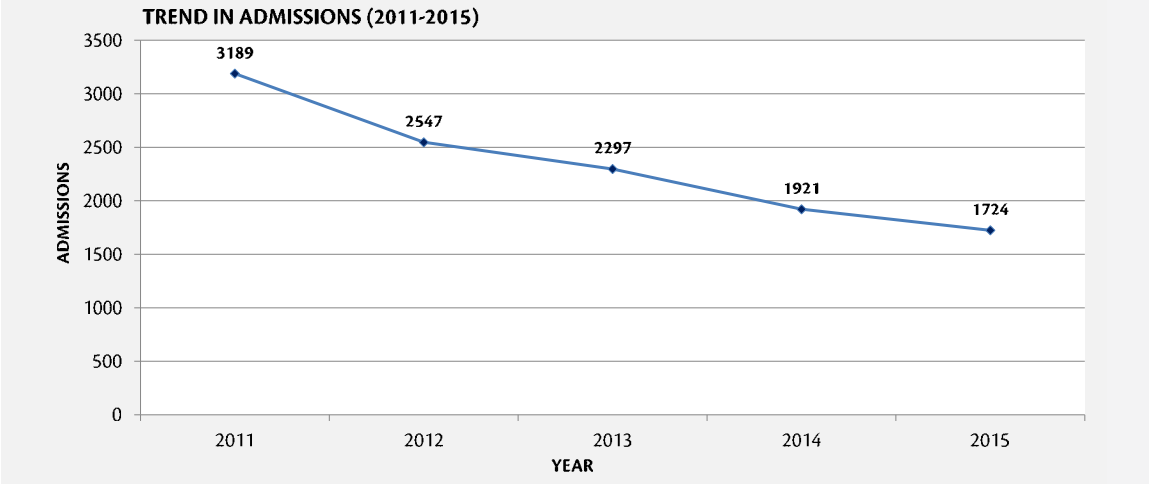
TOP TEN DIAGNOSES AT CHRONIC CARE CLINIC

The chronic care clinic attended to a total of 4,717 hypertension cases, 1,348 diabetes mellitus and 57 cases of arthritis. Hypertension cases were the highest seen at the chronic care clinic followed by diabetes mellitus. The table below show the top ten cases seen at the chronic care clinic.

Table 35: *Top Ten Diagnoses at Chronic Care Clinic*

	DIAGNOSIS	NO. OF CASES/ EPISODES
1	HYPERTENSION	4,717
2	DIABETES MELLITUS	1,348
3	L.SPOND/MSP/MYALGIA/ OSTEOARTHRITIS	248
4	NEUROPATHY	224
5	MALARIA	213
6	DYSLIPIDAEMIA	138
7	RTI	126
8	UTI	82
9	OBESITY	74
10	ARTHRITIS	57

Figure 73: *Trend in Admissions in Family Medicine Directorate, 2011-2015*



TOP TEN CAUSES OF ADMISSION

Malaria and hypertension recorded 13.4% and 12.8% respectively of the total admissions for the year 2015. The table below shows the top ten cases of admissions at the Family Medicine Directorate.

Table 36: *Top Ten Causes of Admission in Family Medicine Directorate*

	DIAGNOSIS	NO. OF CASES/ EPISODES
1	MALARIA	231
2	HYPERTENSION	221
3	SCD	203
4	GASTROENTERITIS/ ENTERITIS	201
5	DIABETES MELLITUS	196
6	GASTRITIS/PUD (Peptic Ulcer Disease)	124
7	ASTHMA	87
8	UTI/UROSEPSIS	80
9	PNEUMONIA	73
10	HIV/HIV RELATED	66

PHYSIOTHERAPY UNIT

The Unit provides specialized physical therapeutic care for out-patients and in-patients to promote and restore health. Service run by the unit includes: Club foot, Back Care, Cerebral Palsy, OPD Rehabilitation, OPD electrotherapy, Child Health and Gym, Cardiopulmonary Rehabilitation and Hand Therapy.

The table gives a summary of the various planned activities, targets and performance of the Unit in 2015.

Table 37: *Summary of Activities of Physiotherapy Unit (2015)*

PLANNED ACTIVITIES	TARGET	PERFORMANCE	% TARGET
Assessment and Rehabilitation of inpatient and OPD cases	1,459 new in-patients 6,284 old in-patients assessed and rehabilitated 2,021 new OPD cases to be seen 18,080 old OPD cases to be seen	1,246 new in-patients seen 5,005 old in-patients assessed and rehabilitated 2,176 new OPD cases seen 19,720 old OPD cases seen	85.0% 80.0% 108.0% 109.0%
Attend to Club foot patients	117 club foot patients to be seen.	135 Club foot patients seen	115.0%
Conduct Club foot education	52 educational sessions to be held	52 educational sessions held	100.0%
To engage Physiotherapist in the medical, surgical and paediatric directorates	At least one physiotherapists engaged in medical, surgical and paediatric directorates	Not done	-
To increase the human resource strength of the Physiotherapy unit	Employ 6 physiotherapist, 6 physiotherapy interns, 10 health care assistants, 2 occupational therapist and 1 speech therapist	One (1) Speech therapist in training	
Fellowship programme for physiotherapists	Support 2 Physiotherapist for fellowship programmes	One (1) Physiotherapist on fellowship programme	50.0%

TREND OF OUTPATIENT CASES (2011 AND 2015)

There has been a general rising trend in old OPD cases since 2011. However, in 2015, 1.6% fewer old cases were recorded as compared to 2014. On the other hand, new OPD cases also experienced a similar trend. In 2015, performance in OPD new cases reflects 96.2% of the previous year's output.

TREND OF IN – PATIENT SERVICES

The unit recorded a total of 6,251 in-patients' visit, comprising 5,005 old and 1,246 new in-patients' visits. Generally, the trend for new in-patients' visit has been rising for 2011 to 2014. There was a decline however in 2015. The trend for in-patients visit for old cases saw a rising trend from 2011 to 2013. However, there has been a decline since 2014.

Figure 74: *Trend of OPD Services (Physiotherapy Unit), 2011-2015*

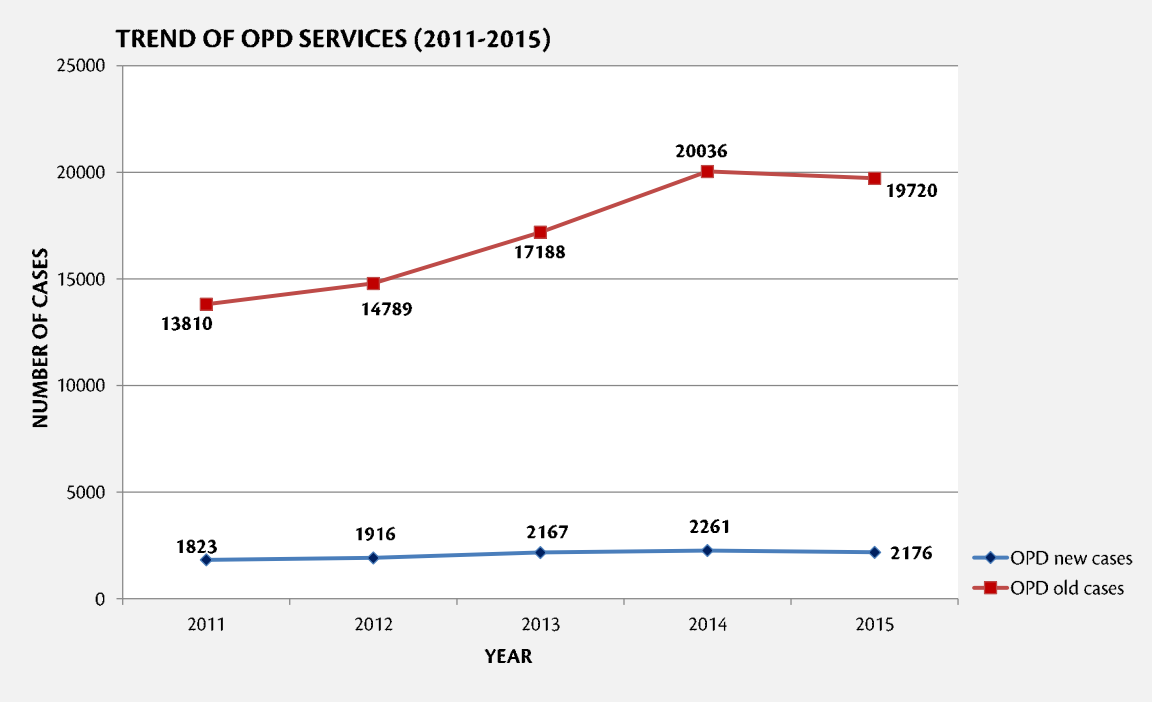
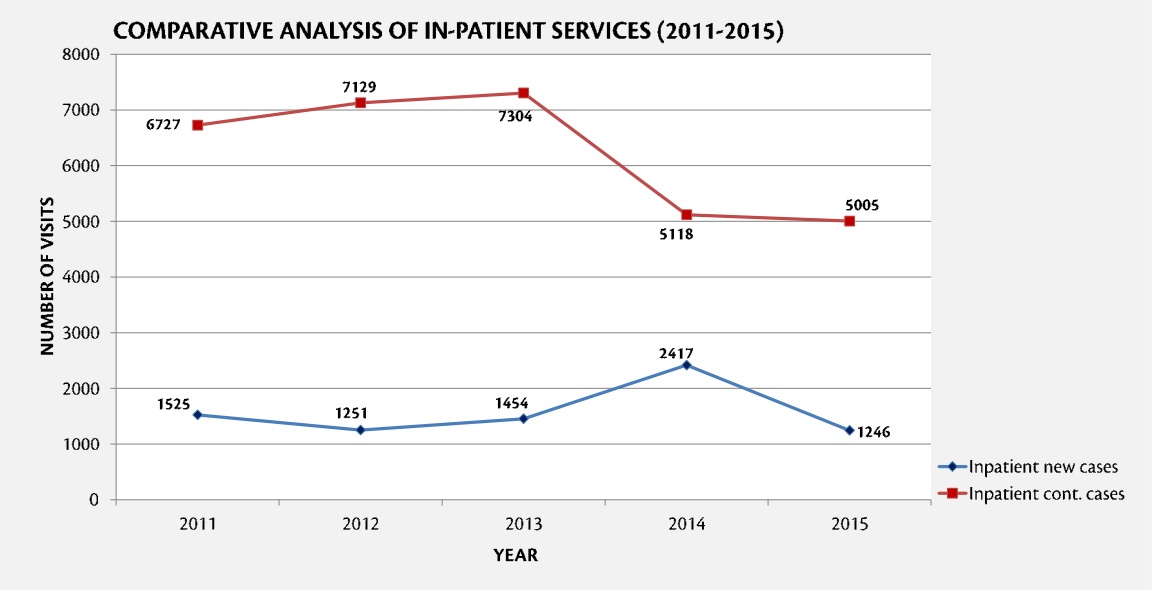


Figure 75: *Comparative Analysis of In-patient Services (Physiotherapy Unit), 2011-2015*



◇ *Priority Activity 5*

CONDUCT OPERATIONAL RESEARCH INTO EMERGING DISEASES

A total of 11 conference abstracts and one peer review paper were published during the year under review

◇ *Priority Activity 13*

SUPPORT TRAINING OF STAFF

The following training programmes were undertaken during the period under review:

- Early diagnosis of Malaria: Triaging and use of Rapid Diagnostic Test Workshop
- Multidisciplinary conference on stroke
- Ebola Management and IPC
- Effective Pain management
- General management of unconscious patient
- Surveillance of epidemic prone diseases and outbreak investigations.
- Management of obstetric emergencies
- Fundamentals of Palliative Care, Share the Care/ KATH, Kumasi, 21-24th Oct 2015
- Three specialist family physicians passed their Membership examinations. Eighteen are in membership training and four in fellowship training (GCPS).

DIAGNOSTICS DIRECTORATE

18

The Diagnostics Directorate is a clinical directorate made up of the following departments;

- Haematology
- Biochemistry
- Pathology
- Microbiology services (Bacteriology, Parasitology & Serology)
- Radiology

In 2015, the directorate worked with a total of one hundred and seventy eight (178) staff at all its service points as against 196 in 2014, representing a decrease of 9.8%.

◇*Priority Activity 4*

CONTINUE THE PROVISION OF ADVANCED DIAGNOSTIC SERVICES

The directorate management team planned to scale up diagnostic services. To achieve this priority, the directorate performed the following activities:

1. Fridge no.6 converted into walk-in-cold room
2. Replacement of obsolete equipment at main x-ray unit
3. Obsolete x-ray replaced at the polyclinic
4. Haematology monthly training of staff was initiated
5. Planned preventive maintenance undertaken for laboratories machines
6. Infection prevention training for mortuary attendants

In 2015, the directorate conducted 315,946 diagnostic services representing a decrease of 30.4% compared to the 2015 target of 454,178. All the activities at the various units and departments decreased during the year under review.

TREND ANALYSIS OF DIAGNOSTIC SERVICES

A five year comparative review of the different diagnostic services in KATH from 2011-2015 is presented on the multiple bar chart below:

OUR DEPARTMENTS

ONE
Haematology

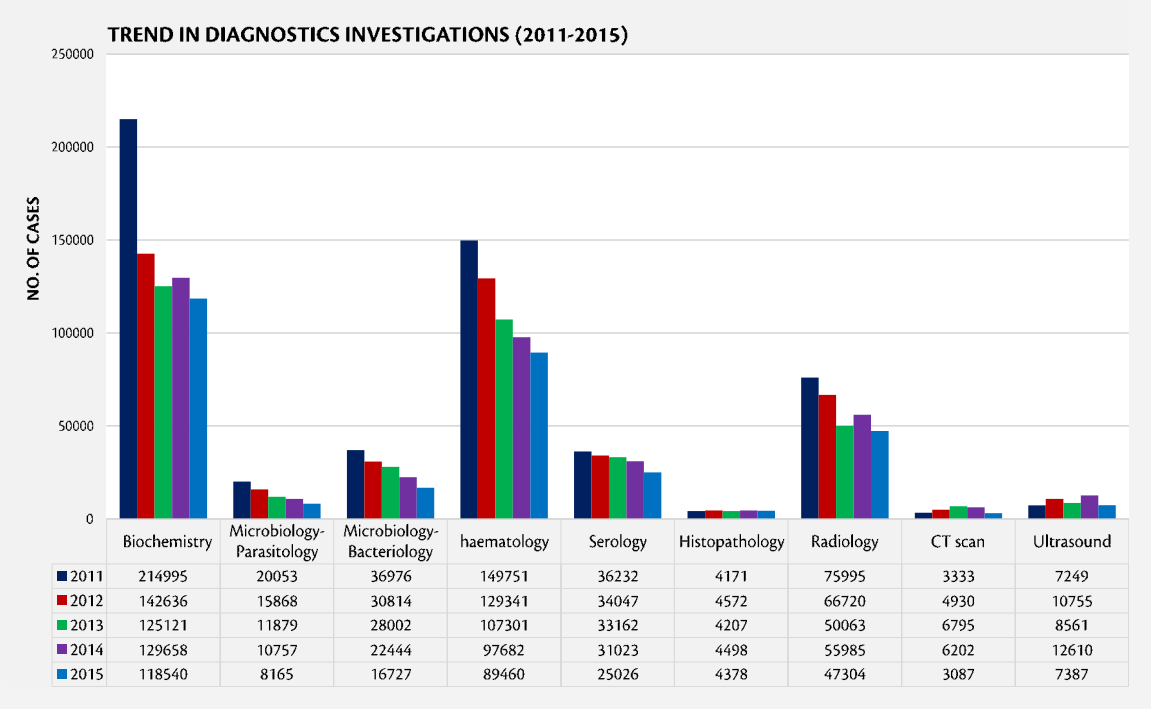
TWO
Biochemistry

THREE
Pathology

FOUR
Microbiology Services

FIVE
Radiology

Figure 76: *Trend in Diagnostics Investigations (2011-2015)*

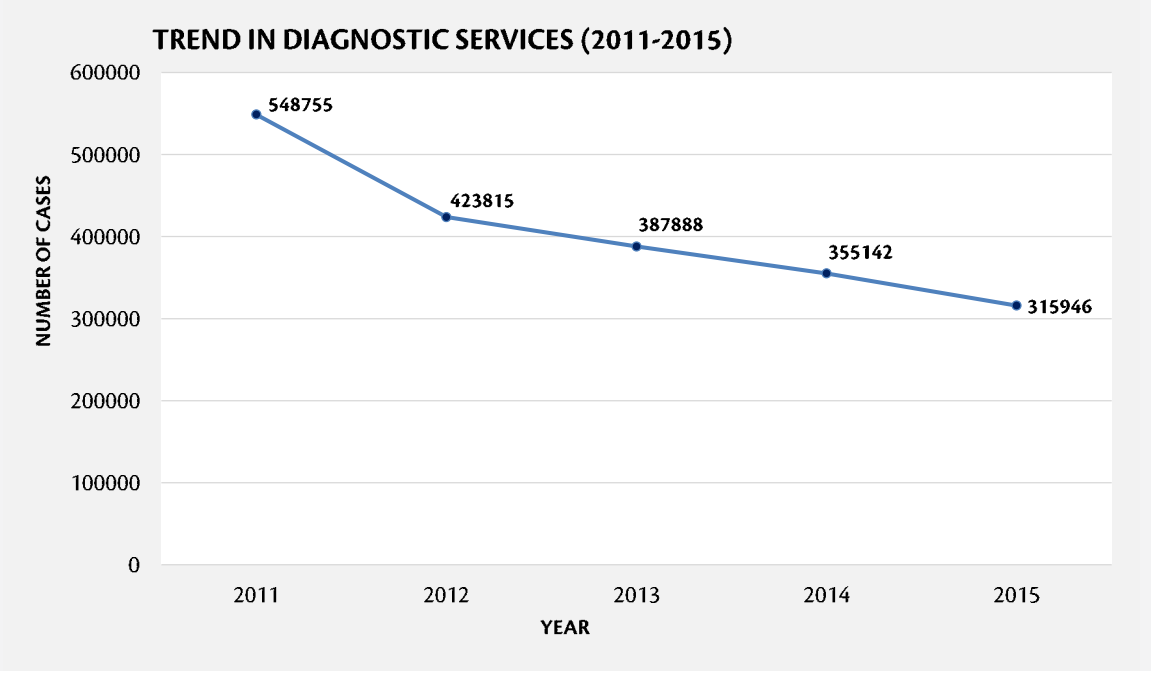


	Biochemistry	Microbiology-Parasitology	Microbiology-Bacteriology	haematology	Serology	Histopathology	Radiology	CT scan	Ultrasound
2011	214995	20053	36976	149751	36232	4171	75995	3333	7249
2012	142636	15868	30814	129341	34047	4572	66720	4930	10755
2013	125121	11879	28002	107301	33162	4207	50063	6795	8561
2014	129658	10757	22444	97682	31023	4498	55985	6202	12610
2015	118540	8165	16727	89460	25026	4378	47304	3087	7387

All the diagnostic services for the year under review fell below the 2014 performance.

TREND ANALYSIS OF DIAGNOSTIC SERVICE

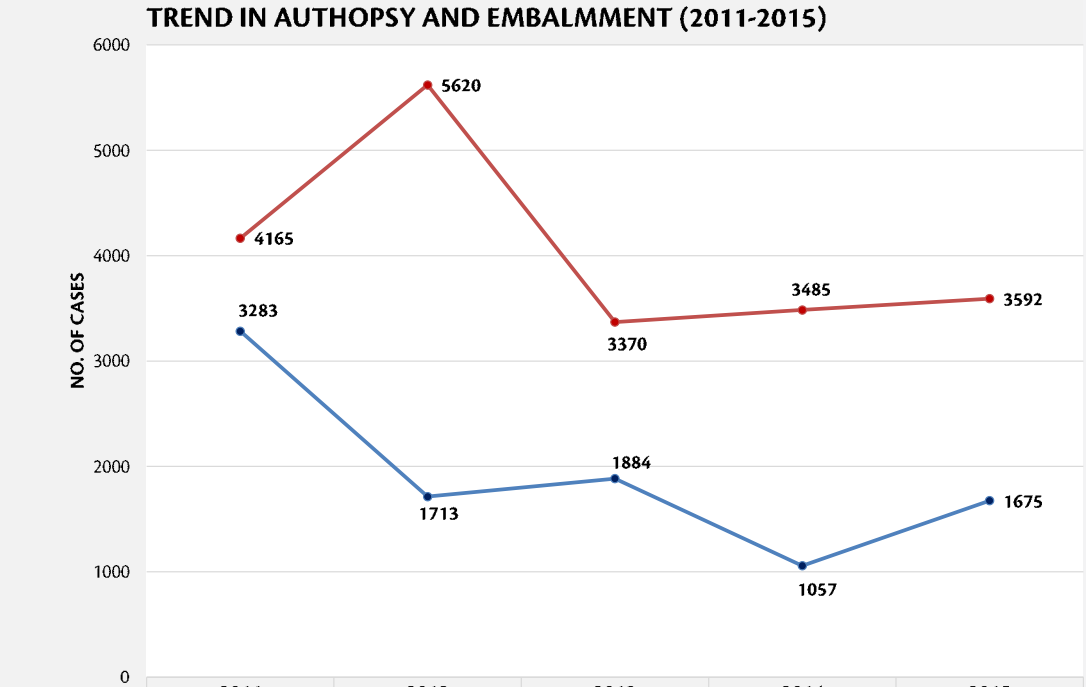
Figure 77: *Trend of Diagnostic Services (2011-2015)*



The general trend in Diagnostic Services has been declining since 2011. There was 11.0% reduction of the 2015 performance compared to 2014 figure.

The chart below gives a summary of other activities that were carried out in the directorate.

Figure 78: *Trend in other Diagnostic Activities (Autopsy and Embalming)*



	2011	2012	2013	2014	2015
Authopsy	3283	1713	1884	1057	1675
Embalming	4165	5620	3370	3485	3592

The trend of both autopsy and embalmment cases performed from 2011 to 2015 have been inconsistent. In 2015, there was 3.1% increase in the number of embalming cases performed compared to 2014 figure. There was also a significant increase of 58.5% compared to the 2014 performance

◇ *Priority Activity 13*

SUPPORT TRAINING OF STAFF

Four (4) radiologists were trained in specialized areas which includes Magnetic Resonance Imaging (MRI), Computerized tomography (CT) Scan and fluoroscopy. There were also ten (10) radiographers and biomedical scientist each who attended Continuous Professional Development (CPD) programmes. One (1) biomedical scientist was sponsored for an exchange programmed at the University of Utah, USA. Update course was also done for all resident doctors. Ultrasound workshop was also organized for peripheral hospitals.

TRAUMA AND ORTHOPAEDICS DIRECTORATE

19

OUR MANDATE

TO PROVIDE SPECIALIST

Out-Patient Services,

Surgical Operative Services,

In-Patient Services

Minor Procedures

This directorate is mandated to provide specialist Out-Patient services, Surgical Operative services, In-Patient services and minor procedures (POP services).

The staff strength of the Directorate is 166 which comprise of 8 Senior Specialists, 5 Senior Residents, 18 Medical/House Officers, 94 Nurses and 15 Health Assistants, 2 Porters, 16 Orderlies and 8 Administrative/Finance Staff.

◇*Priority Activity 1*

INCREASE THE RANGE OF SPECIALIST SERVICES

During the year, the directorate Management team, planned to improve on existing services.

OUT – PATIENT SERVICES

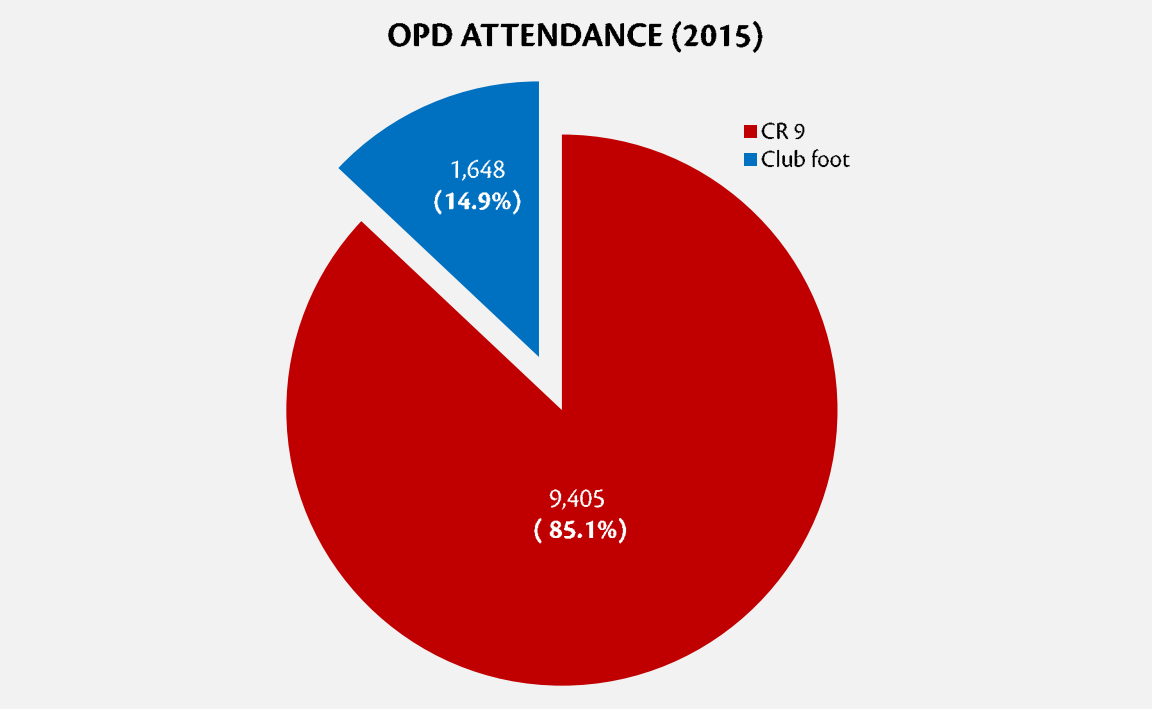
A total of 9,405 cases were seen in Consulting Room 9 (CR9) representing 9.6% decrease over the 2014 performance. This also represents a 1.0% decrease compared to the total target of 9,500 for Trauma OPD cases set for the year 2015.

UTILIZATION OF OUT-PATIENT SERVICES FOR 2015

The outpatient service utilization for 2015 is demonstrated in the figure below.

A total of 11,053 OPD cases were recorded in 2015 with 9,405 seen at consulting room 9 (CR9) and Club foot clinic recording 1,648.

Figure 79: *OPD Attendance in Trauma and Orthopaedics Directorate (2015)*



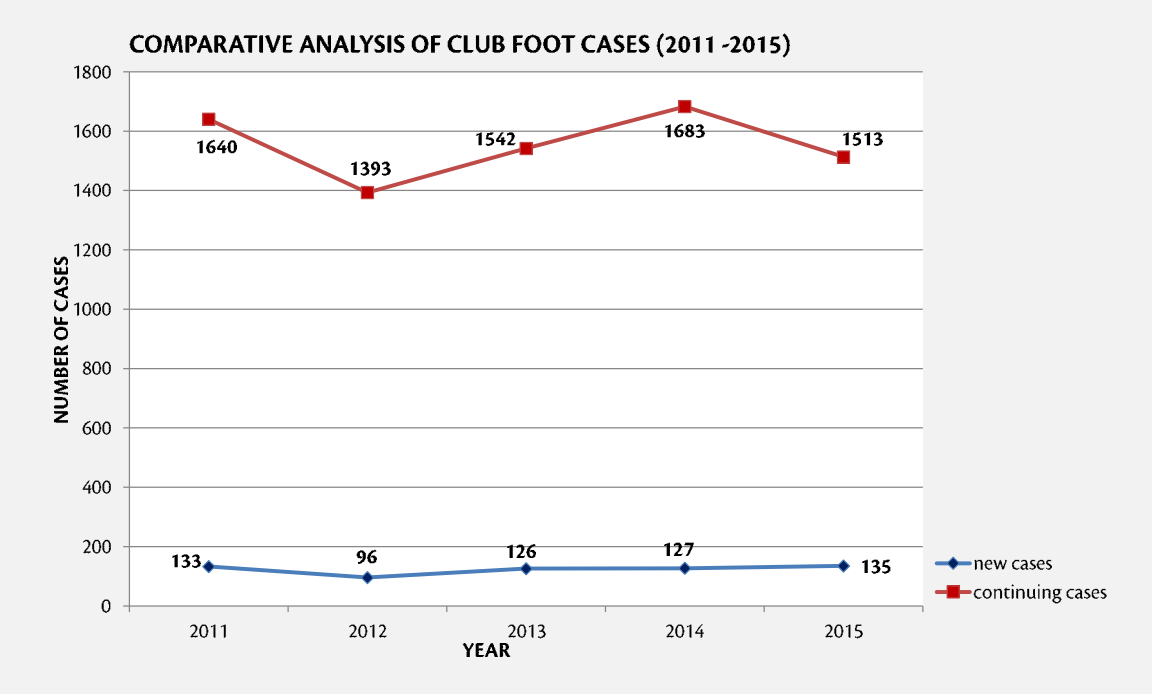
TREND OF CLUB FOOT CASES (2011 AND 2015)

During the year under review, the total number of Club foot cases recorded was 1,648. This comprise of 1,513 continuing cases and 135 new cases.

The figure below demonstrates the trend of clubfoot cases recorded in the hospital.

In 2015, the number of continuing cases decreased by 10.1% in 2014 compared to the 2013 performance. However, new cases increased by 6.3% in the year.

Figure 80: *Comparative Analysis of Club foot Cases (2011-2015)*



The five year trend (2011-2015) in OPD attendance is shown in the chart below.

The trend in OPD attendance has been increasing steadily from 2011 to 2014. The year under review recorded a decrease of 9.5% over the previous year figure.

IN-PATIENT SERVICES

The directorate provided in-patient services for clients at wards C1A, C2A and C2B. The total bed complement for the year was 90. The average length of stay was 20 days with 70.30% bed occupancy. In 2015, the directorate under achieved its target of 1,200 by recording 1161 admissions which represents 96.8%.

TREND ANALYSIS OF ADMISSIONS 2011 – 2015

The figure below shows a trend analysis of admissions at the Directorate for the past five years. The diagram shows a gradual increase from 2011 to 2014. The year under review saw a decrease of 2.2% compared to the 2014 figure.

Considering the trend in admission between 2011-2015, there was a consistent trend from 2011 to 2014 except in 2015 where there was a reduction.

Figure 81: *Trend in OPD Attendance in Trauma and Orthopaedics Directorate*

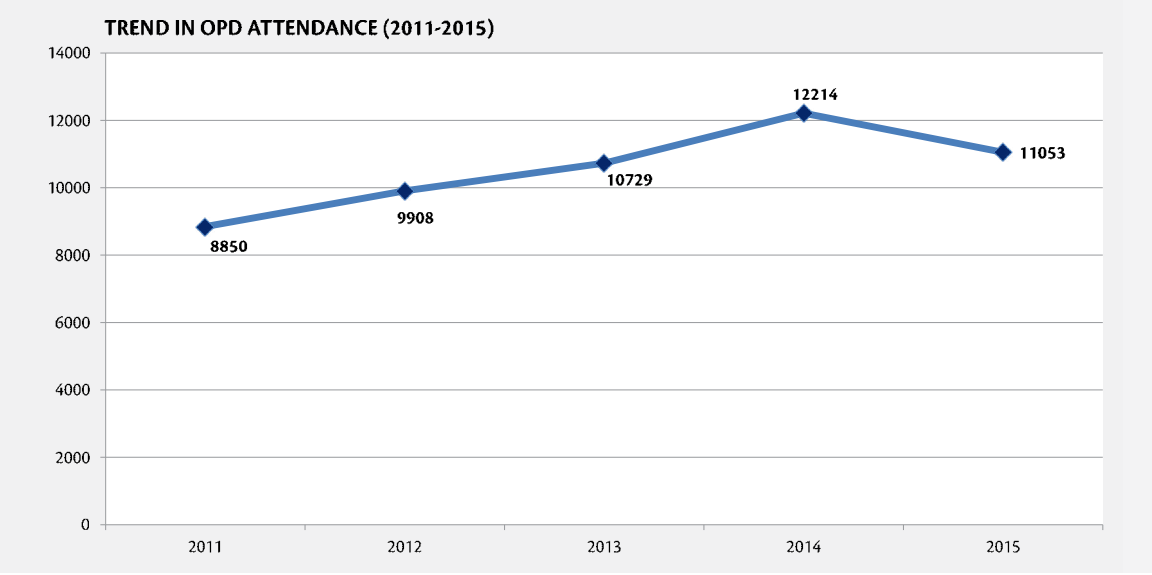
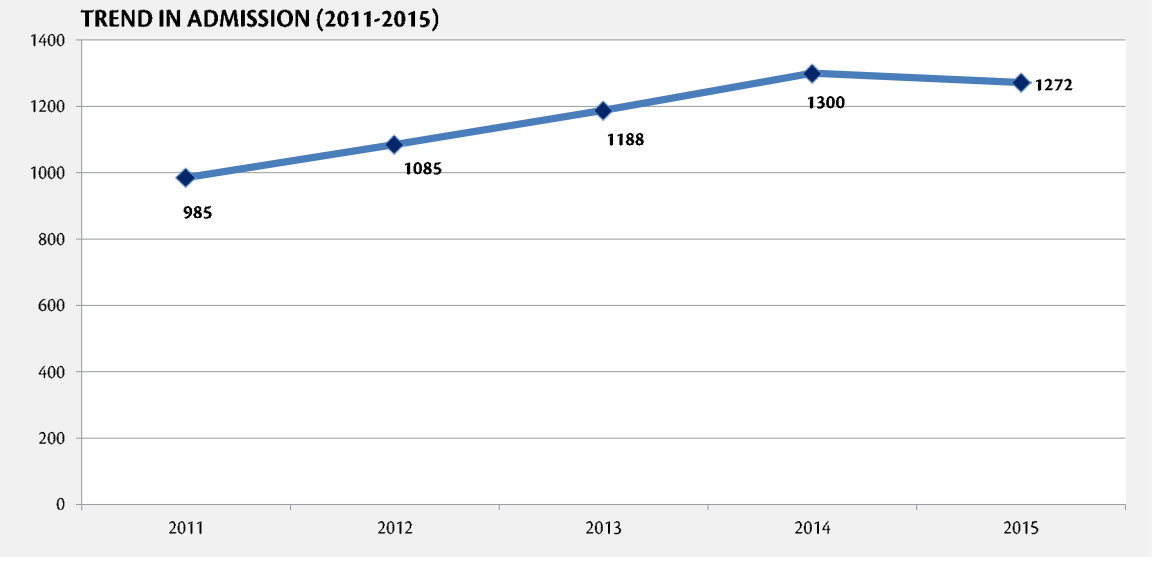


Figure 82: *Trend in Admissions in Trauma and Orthopaedics Directorate*



SURGICAL OPERATIONS

The directorate recorded 6,207 major and minor surgeries in the year 2015. The figure below denotes the breakdown of major surgeries performed in the directorate during the period under review.

A total of 1105 Elective, 401 Emergency and 232 Paediatric trauma surgical cases were recorded in 2015 as shown in figure 83.

TREND IN SURGICAL OPERATIONS

The trend in Surgical operations for five (5) years is presented in figure 84.

There has been a steady increase from 2011 to 2013 but decrease in 2014 and the year under review. In 2014 the directorate saw a decrease of 5.0% over the 2013 performance and a decrease of 12.7% on the expected output of 2,000. There was a decrease of 0.5% over the 2014 performance.

Figure 83: *Distribution of Surgical Operations in Trauma and Orthopaedics Directorate*

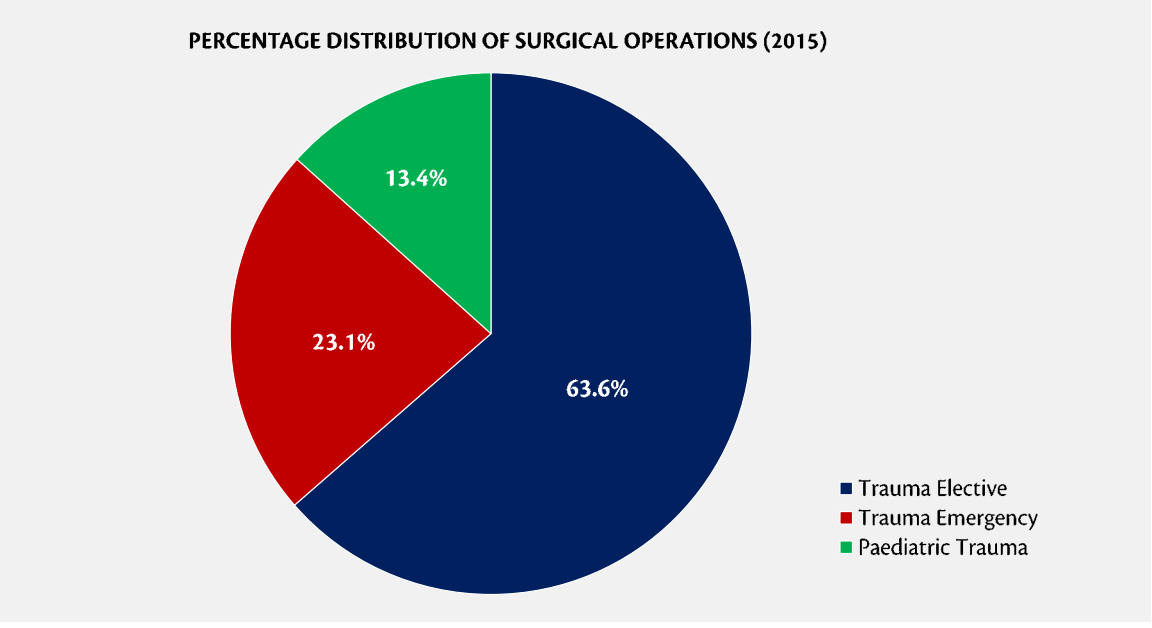
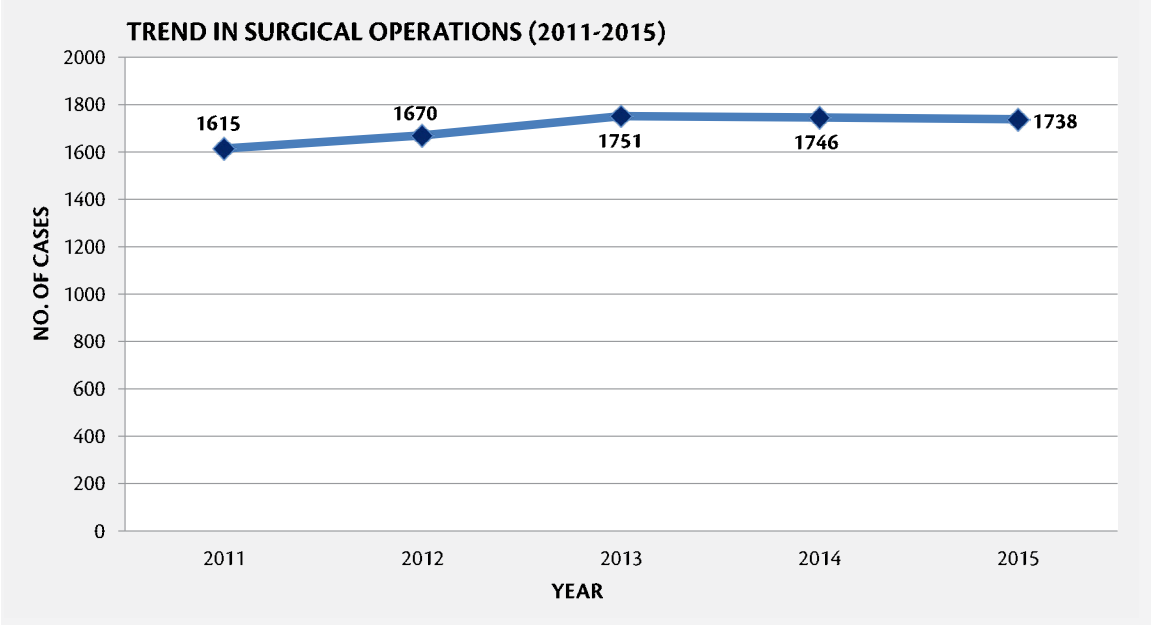


Figure 84: *Trend in Surgical Operations in Trauma and Orthopaedics Directorate (2011-2015)*



◇ *Priority Activity 2*

SUSTAIN ACTIVITIES AIMED AT REDUCING MORTALITY, ESPECIALLY MATERNAL MORTALITY

The directorate continued to put in place measures to strengthen mortality audit. The figure below shows the trend of mortality for the past five years.

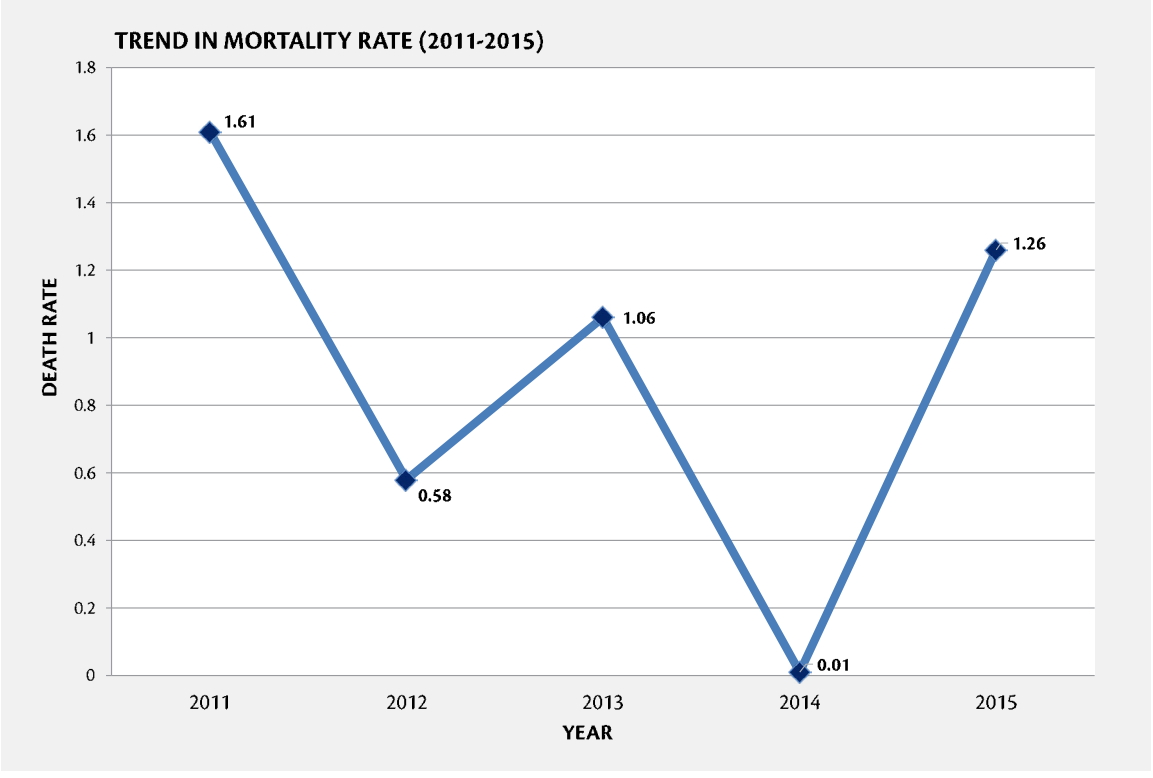
The directorate's mortality rate has fluctuated. It declined in the previous year but increased in the year 2015.

◇ *Priority Activity 13*

SUPPORT TRAINING OF STAFF

In 2015, the directorate collaborated with Academy of American Orthopaedic Surgeons (AAOS), Health Volunteers Overseas (HVO), AO Alliance Foundation, SIGN fracture care international, University of Utah Orthopaedic centre, Institute of Global Orthopaedics and Traumatology (IGOT/UCSF). Six (6) trauma/ orthopaedic doctors and seven (7) nurses are currently under training. Three (3) training programmes were organized in collaboration with AO Alliance Foundation for Doctors, Nurses, Physiotherapists and Physician Assistants at the Regional, District and other government health institutions in non-operative and basic operative surgeries. One hundred and thirty four (134) staff were given training in various areas including application of POP care of patients skin and management of skeletal fractures, management of clients with pelvic injuries, management and leadership skills, general wound management among others.

Figure 85: *Trend in Mortality Rate in Trauma and Orthopaedics Directorate (2011-2015)*



EMERGENCY MEDICINE DIRECTORATE

20

The Emergency Medicine directorate provides emergency medicine services.

The Directorate undertakes the following working fields;

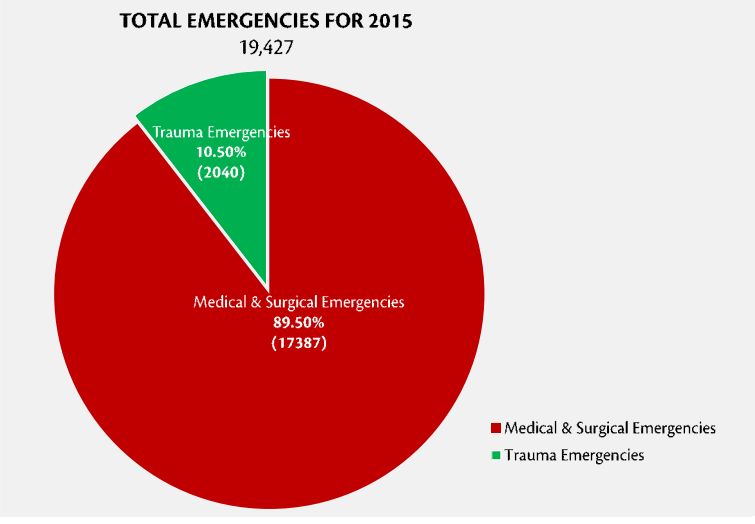
- Triage/Screening room; Red, Orange and Yellow zones
- Clinical Decision Units – Male, Female and Paediatrics.

◇*Priority Activity 3*

CONTINUE TO SUPPORT EMERGENCY SERVICES

The Directorate saw to 19,427 emergency cases which represents 76.0% of the 25,550 target set for the year 2015. The directorate aims to go beyond the target-set in subsequent years.Patients have been staying beyond the twenty-four hours limit at the emergency care unit due to the shortage of patients' beds in the main wards and thus cause congestion within and outside work stations/zones at the Directorate. During the year under review a total of 19,427 Emergency cases were recorded. Majority of the cases which represents 89.5% of the cases were medical and surgical emergencies. The remaining 10.5% were Trauma emergencies. The chart below shows emergency cases recorded in 2015.

Figure 86*: Attendance in Emergency Medicine Directorate (2015)*



PRIORITY ACTIVITIES

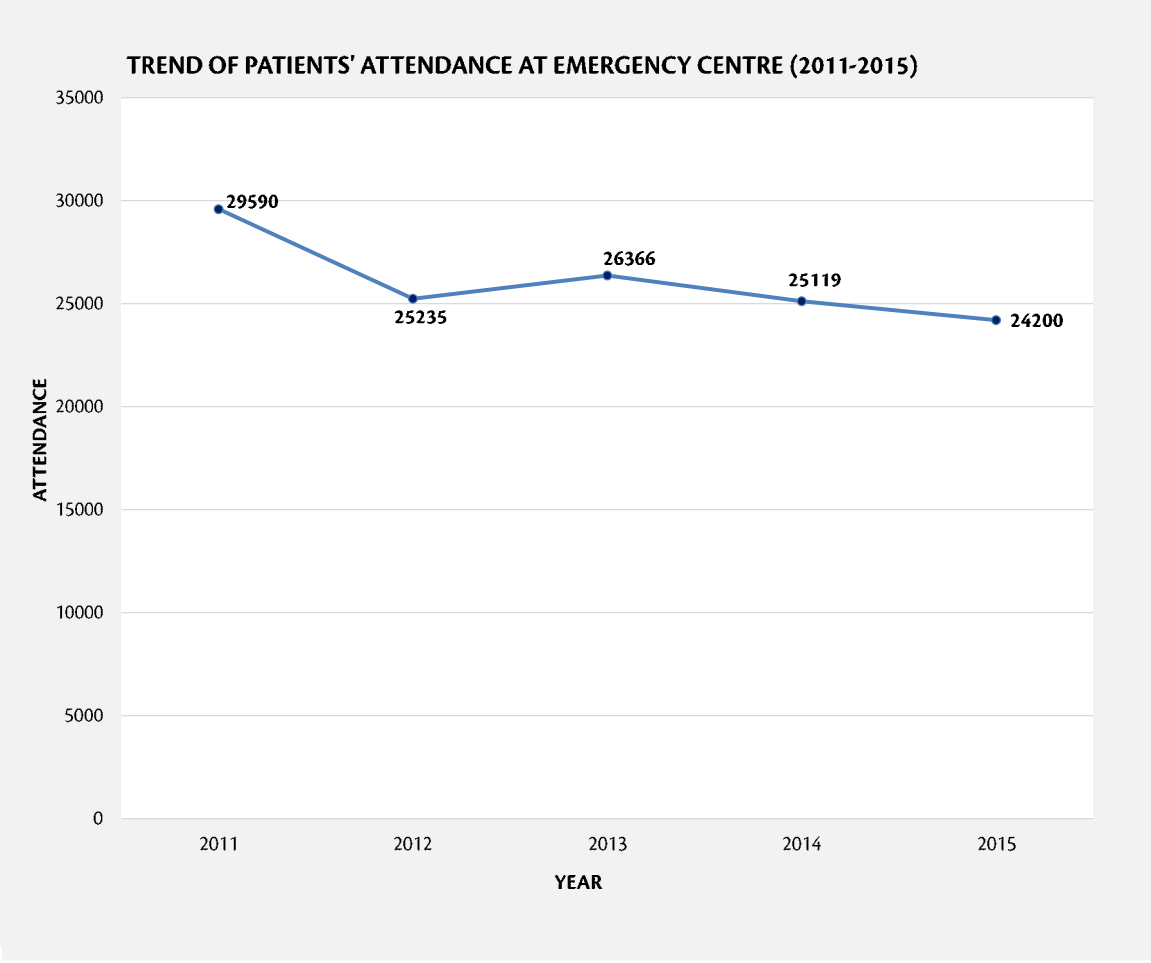
WE CONTINUALLY
Support Emergency Services

ALSO, WE
Continue to Support the Training of Staff

TREND IN EMERGENCY SERVICES UTILIZATION, 2011-2015

The diagram below shows the trend in Patients' Attendance at Emergency Medicine

Figure 87: *Trend of Patients' Attendance at Emergency Medicine*



The trend of Emergency services has been fluctuating. There was a reduction in 2012 but increased in 2013. In 2015, the directorate recorded a decrease of 3.7% compared to the 2014 performance.

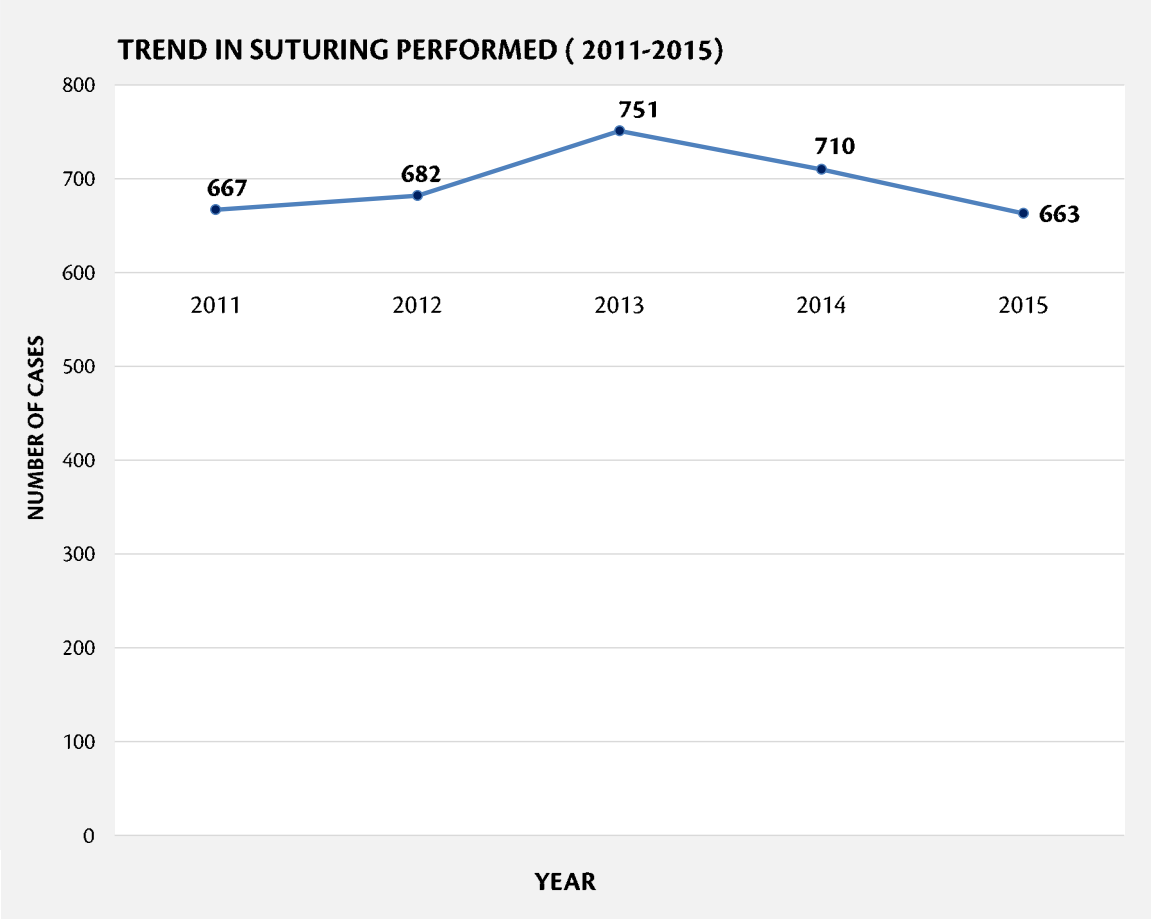
SURGICAL OPERATIONS

During the year under review, there were 663 minor surgical procedures (sutures) out of a targeted figure of 700 were performed representing 5.3% decrease over the set target. The 2015 performance represents 6.6% reduction compared to the 2014 performance.

The graph below shows the trend in minor surgical procedures (suturing) services rendered for the past five (5) years.

The year under review saw a decrease compared to the 2014 performance.

Figure 88: *Trend in Suturing Performed in Emergency Medicine Directorate (2011-2015)*



◇ *Priority Activity 13*

SUPPORT TRAINING OF STAFF

During the year under review, thirty-nine (39) doctors were trained in Advanced Emergency Trauma Course (AETC). Two hundred and forty three (243) nurses received training in fluid and electrolyte balance, nursing management of head injury, triaging, blood transfusion, drug administration and development of drug transfusion checklist. The exchange programme with University of Utah is on-going. Accreditation has been given to the directorate to train Physicians as trainers.

TRANSFUSION MEDICINE UNIT

21

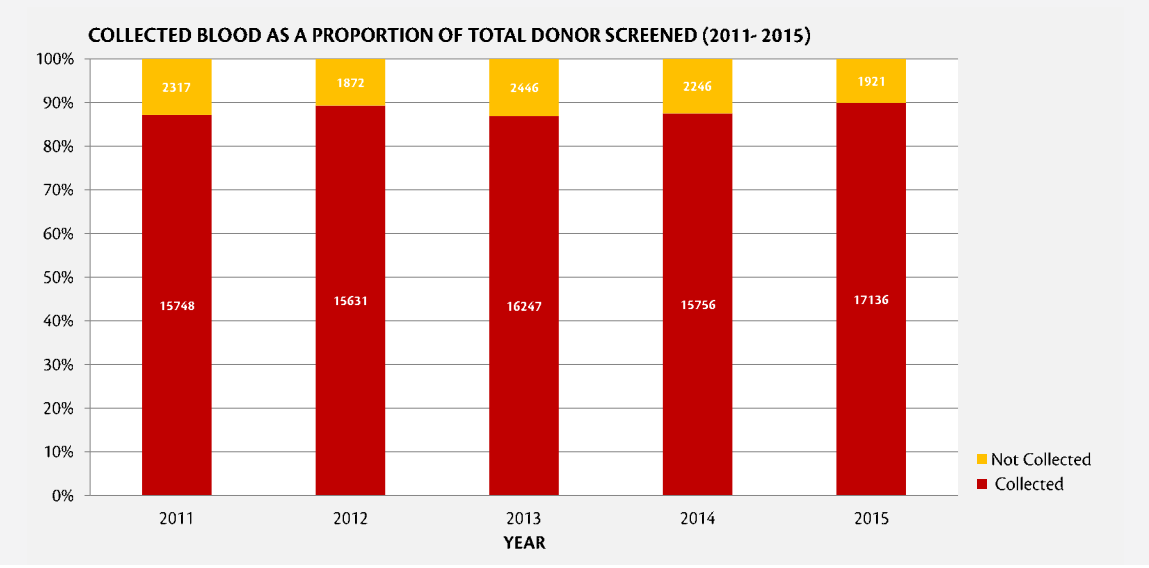
The Transfusion Medicine Unit (TMU) is mandated to provide safe blood and blood components for Clinical use in KATH and other health care facilities within the catchment area of KATH.

The unit planned to carry out the following key activities in 2015;

- Screening 21,000 prospective blood donors
- Ensuring 19,000 units of safe blood collected and supplied for clinical use
- Organize 10 blood donation drives with radio stations
- Process 5000 units of Fresh Frozen Plasma (FFP)
- Process 500 units of Platelet Concentrate
- Celebrate the 2014 world blood donor day
- Achieve 95% of planned mobile sessions
- Achieve 75% voluntary blood units
- Collect an average of 60 blood units/per session
- Provide Donor Care Service – 50% of deferred donors
- Discard less than 5% of blood units collected

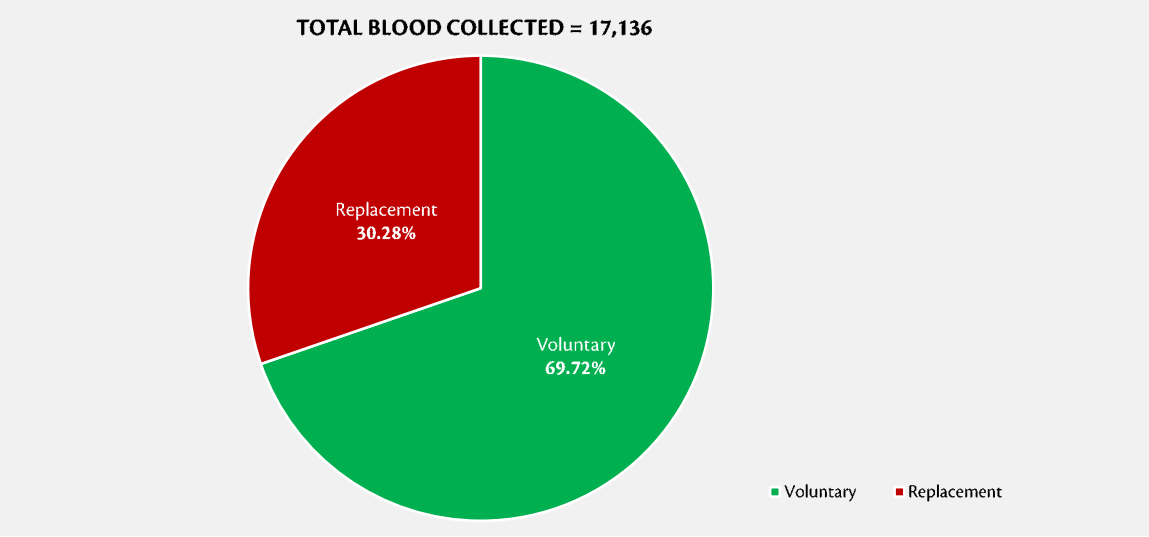
During the year 2015, the TMU screened 19,057. This represents 5.9% increase compared to 2014 performance. 17,136 units of whole blood were collected as against 15,756 units in 2014, out of which 4.0% (685 units) were discarded for various reasons.

Figure 89: ***Donors screened vs. Blood collected in TMU***



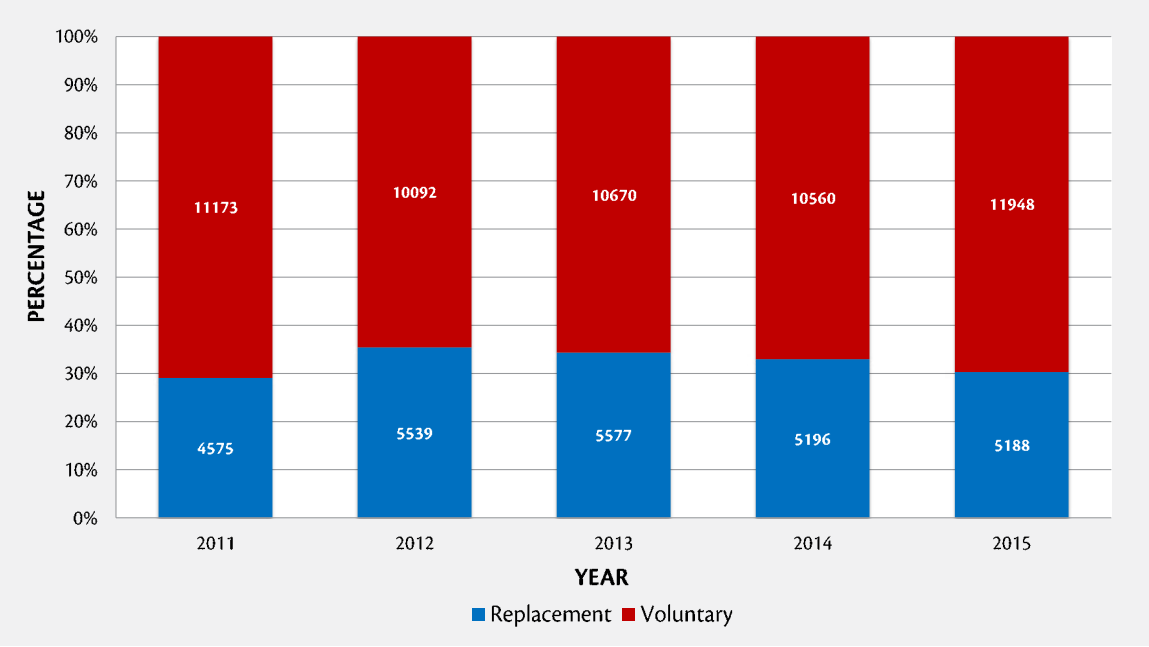
There was an increase of 8.8% of blood collected compared to the 2014 performance. Voluntary donations constituted 69.7% (11,948) of the total blood collected for the year 2015. This is presented in the figure below.

Figure 90: *Blood Collected by TMU (2015)*



TOTAL BLOOD DONATION

Figure 91: *Voluntary and Replacement Blood donations as a proportion of Total Blood Donations (2011-2015)*



From the above figure, Voluntary blood donations increased by 24.2% compared to the 2014 performance. Voluntary blood donations have been the major contributor to the total blood collected by the Unit for the past 5 years. Replacement donations however decreased by 0.2% compared to 2014 performance.

There has been a fluctuating trend in total blood collected over the past 5 years. This is illustrated in the chart above where total blood collections have remained above 15,600 units for 2011, 2012 and 2014 except in 2013 and 2014 where an increase of 16,247 units and 17,136 units were recorded respectively.

CLINICAL USE OF BLOOD

The hospital's clinical use of blood has gone up since the establishment of the Accident and Emergency (A&E) Centre. The A&E Centre continues to be the major clinical use of blood (23.0%) followed by Obstetrics and Gynaecology (19.0%). Surgery and Child Health recorded 13.0% and 12.0% respectively. Blood issued to Non-KATH institutions constituted 17.0% of total blood units. This information is depicted in figure 92.

CLINICAL USE OF FRESH FROZEN PLASMA

The Directorate of Obstetrics and Gynaecology continue to remain the leading user of Fresh Frozen Plasma (FFP), using about (38.0%) of the supply of FFP**.** Surgery, A&E Centre, Medicine, Child Health (Paediatrics) consumed 20.0%, 19.0%, 9.0%, and 8.0% of FFP respectively. The composition of FFP produced was 2,664 (15.5%) out of the total 17,136 units of whole blood collected during the year 2015. The remaining 84.5% of total blood collected was given out essentially as whole blood transfusions. This information is presented in figure 93.

Figure 92: ***Clinical Use of Whole Blood***

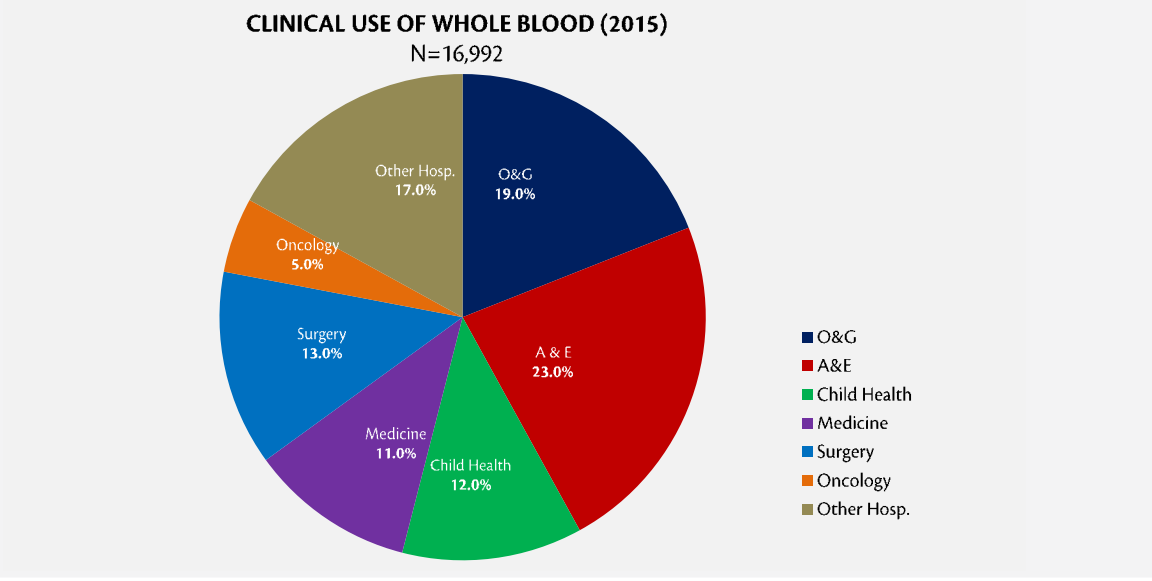
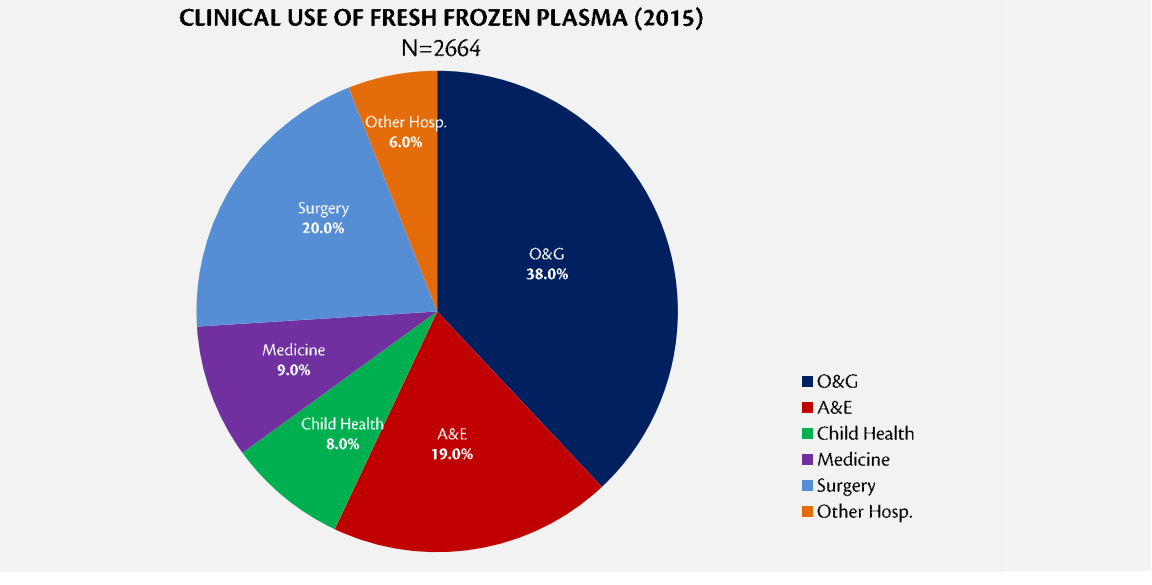


Figure 93: ***Clinical Use of Fresh Frozen Plasma (2015)***



CLINICAL USE OF PLATELETS

Child Health Directorate was the major use of Platelets in 2015, consuming 64.0% of total Platelets in the hospital as can be seen from figure 94. Medicine, O&G, Surgery and A & E used 13.0%, 6.0%, 6.0%, 4.0% respectively. Non-KATH institutions used 4.0% of the platelets during the year under review.

BLOOD DISCARDS

In 2015, a higher percentage of blood that was discarded was from expired units (50.0%), Syphilis (15.0%) and HBV (12.0%). Incomplete units made up 15.0%, HIV 4.0%, HCV 1.0% and Leakage 3.0%. Figure 95 below shows the total number of blood units that were discarded in 2015.

Figure 94: *Clinical Use of Platelets*

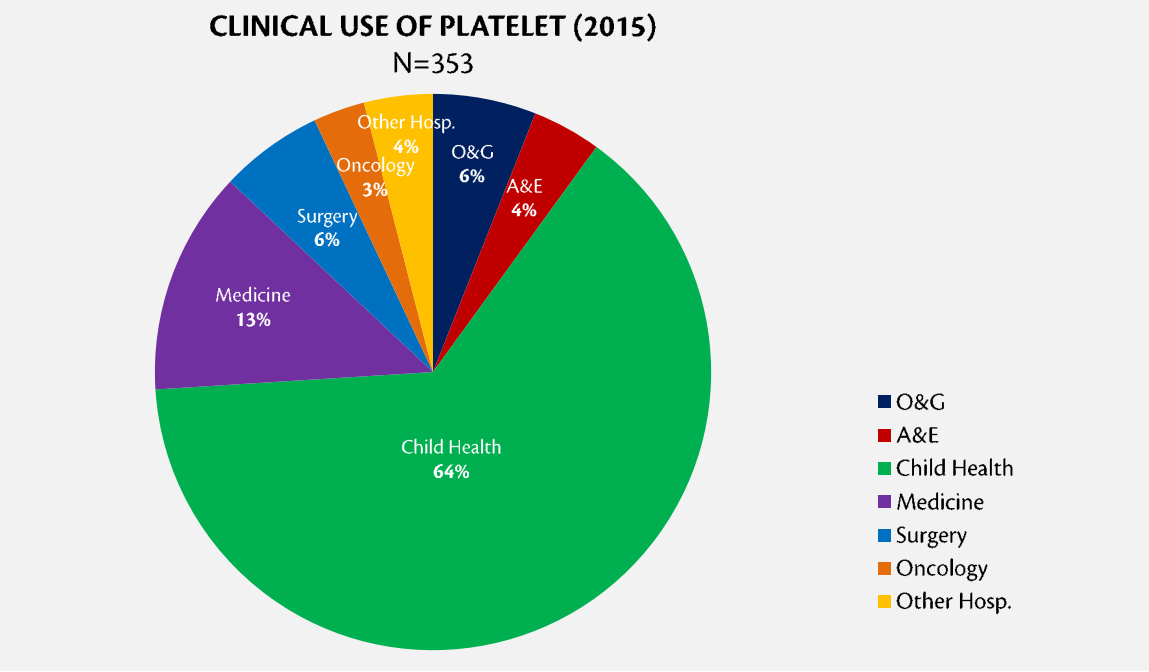
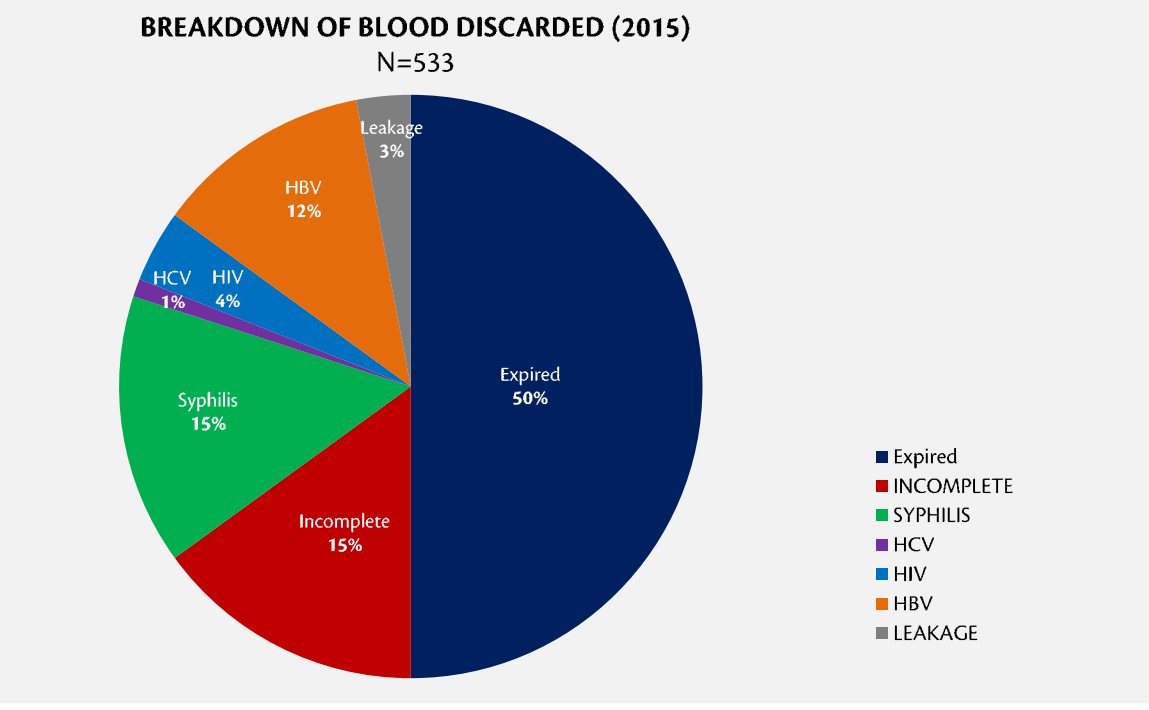


Figure 95: *Breakdown of Blood Discarded*



INTERNAL AUDIT UNIT

22

The Ghana Health Service and Teaching Hospitals' Act, ACT 525 of 1996 and Internal Audit Agency Act, ACT 658 of 2003 make it mandatory for KATH to have an Internal Auditor (Internal Audit Unit).

Activities of the Internal Audit Unit are regulated by Internal Audit Agency Act and Regulations from Internal Audit Agency, as well as Internal Audit Standards.

◇ *Internal Audit*

AN ASSURANCE/ADVISORY SERVICE

The unit provides reasonable assurance to Management on the financial, non-financial and other aspects of the hospital's activities that can be independently reviewed.

The internal audit embarks on the following:

- Designs programmes that would detect fraud
- Gathers evidence to support claims
- Makes recommendations, then follow-up on approved and previous recommendations

The unit focuses on controls; compliance with policy, regulations and laws; value for money and performance.

◇ *The Scope of Internal Audit*

This includes:

- Examination and evaluation of internal controls
- Review of risk management procedures
- Review of risk assessment methodologies
- Review of management and financial information systems
- Review of means of safeguarding assets
- Review of accounting records and financial information
- Testing of transactions and functioning of specific internal controls

It is Mandatory for KATH to have an Internal Auditor (Internal Audit Unit)

ACT 525 (1996)
Ghana Health Service and Teaching Hospital's Act

ACT 658 (2003)
Internal Audit Agency Act

◇ *Audit Needs Assessment Methodology*

The audit approach for the year 2015 was risk based. In order to identify the areas that require Internal Audit coverage, the Unit needed to understand the risks facing the Hospital as a whole and at the individual directorates/units levels. As a result, the Hospital's corporate risk register was used to inform the audit needs assessment.

A comprehensive risk based Internal Audit approach was adopted to ensure that risk is integrated into strategic and operational reviews, processes and practices. A summary of this approach is provided below:

- Identification of risk areas;
- Performance of a risk assessment to gauge the degree of risk or materiality associated with a particular area. Audit areas are classified as high, medium or low priority;
- Internal Audit resources are then focused on the areas of highest risk;
- Cumulative knowledge of the organisation from previous Internal Audit work to identify areas that would benefit from Internal Audit coverage was used;

Notwithstanding, the above Audit Needs Assessment also led to the identification of areas for audit coverage which did not appear as high priority risks, but where Internal Audit can provide tangible inputs to the overall assurance process and its efficiency, for example:

- Requirements of management
- Minimum Internal Audit coverage requirements e.g. key controls audit and documentation of key information flows
- Areas of concern flagged by management or the Audit and Audit Report Implementation Committee (ARIC)
- The requirements of the external auditors
- Emerging issues; and
- Need for on-going assurance in relation to key aspects of internal control

Table 38: ***Achievements, Internal Audit Unit (2015)***

PLANNED ACTIVITIES	OUTPUT
Pre Audit of Revenue: **Task:** • *Audit on receipts* • *Checking of lodgements* **All bank deposits** • *Cash count and other revenue investigations*	• Cash revenues and some other receipts were pre-audited • Reconciliations on all cash deposits done. • Confirmation of lodgement daily.
Stores Verification **Task:** • *Review of contract award letters* • *Verification on SRA* • *Physical inspection of stores.*	• Award letters and SRA were reviewed. • Physically inspected items purchased or donated to KATH • Certification form introduced. • Special follow up review on supplies

Payments Related Audits: **Task:** • *Pre audit of petty cash and all other payments* • *Staff salaries (monthly)* **Post Payment Reviews.**	• Payments Worked on Includes; • Daily pre audit of all payments; • Contracts and KATH projects. IGF Staff salaries and deductions. • Fuel Allowance
Stock Take and Confirmation **Task:** • All Kath Stores Other Confirmations:	• Stock count in all KATH stores (both Pharmacies and other stores) done • Canteen Coupon verifications • Special stock take at MMU • Routine confirmations at MMU and SOPD done • Confirmation of Revenue collection at selected activity centres. • Verification on specialized transactions e.g. Directorate Portions. • Confirmation of stoppage of salaries/Separation system. • Confirmation of examination gloves usage as reported by Stores Unit.
Follow up Audits: **Task:** • To review state of implementation of reports.	All major previous findings followed up. • Rent • Cash/Revenue follow ups • Salary advance • Stores audit
Fifteen (15) Planned Audits: **Task:** • Fifteen (15) Thrust areas identified by risk assessment to be audited.	• Fixed Asset Audit • Transport (Fuel) Audit • MMU • Audit of Residential facilities • Medical Stores Audit • Eye Clinic Audit • Usage of Consumables-Gauze • Oral Health Investigation • IGF head count • Payroll audit • ICT reviews
To organize Stakeholder meetings	16 (sixteen) stakeholder meetings organized

RESEARCH AND DEVELOPMENT UNIT

23

The Komfo Anokye Teaching Hospital's R&D was set up in 2006 with the responsibility to develop and sustain the research capacity of the hospital.

The Unit is to coordinate and monitor research activities going on in the hospital, provide evidence based knowledge that will contribute to the improvement of clinical and non-clinical services in KATH, promote critical review and publication of research work and to attract research partnerships to KATH.

◇Planned Activities for 2015

OPERATIONAL RESEARCH IN KATH

In the year 2015, the priority activities for operational research in KATH were to:

- Build research capacity of the R&D Unit to conduct research
- Prioritization of research areas (identify specific areas of research that are needed to fulfil the above) in collaboration with all HODs and HOUs
- Provide financial and technical support to directorates for operational research on prioritized areas
- Conduct R&D Unit Driven Research

OPERATIONAL RESEARCH IN KATH (ACHIEVEMENTS)

- In a move to improve and build the research capacity of the R&D Unit to conduct research, two (2) in-house training seminars were conducted in the year 2015. These in-house training generally covered research methodologies and data analysis.
- During the year under review, the R&D Unit provided technical capacity for the under-listed directorates for the conduct of the following research study in their respective directorates:

WHAT WE DO

Coordinate and Monitor Research Activities

Provide Evidence Based Knowledge

Provide Critical Review and Publication of Research Works

Attract Research Partners

- ***Accident & Emergency Centre***: The R&D Unit helped establish trauma data repository for the Centre. The Unit continues to provide technical support for data collection and management.
- ***Ghana Access and Affordability Partnership Program (GAAP)***: The R&D Unit provides technical capacity in the area of training of all research assistants involved in the study as well as generation of Research Assistants' Manual. The study is currently on-going at the Directorate of Internal Medicine.
- ***A Multidisciplinary Study of Breast Cancer in Ghana: Ghana Breast Health Study*:** This study is collaboration between R&D Unit, Directorates of Oncology, Surgery, the Pathology Unit and the National Institutes of Health in Bethesda, Maryland, United States. The purpose of the study is to learn more about the causes of breast disease in women in Ghana. The titled of the study is "*A Multidisciplinary Study of Breast Cancer in Ghana: Ghana Breast Health Study*".
- ***Respiratory Data Capturing for Pulmonology unit*:** This study is being conducted in the Child Health directorate of the hospital. This study is trying to generate data on all respiratory admissions to PEU of the Directorate of Child Health. This study which begun in November 2014 is documenting respiratory cases such as pneumonia, bronchopneumonia, Lobar pneumonia, pleural effusion, bronchiolitis among others. As at the time of this report a total of 200 cases have been recorded. The study is currently on-going.
- ***Utilization of Electronic Medical Records (EMR) System and Conversion of Existing Paper-Based Medical Records into Electronic Records at KATH*:** This study started in May, 2014 and it is a collaboration between the R&D units, Biostatistics unit and Georgia Southern University, United States of America. The study is on the "*Utilization of Electronic Medical Records (EMR) System and Conversion of Existing Paper-Based Medical Records into Electronic Records at KATH*".
- ***Intussusception surveillance programme*:** The intussusception surveillance programme is a collaborative study with the Komfo Anokye Teaching Hospital, Kumasi, the Noguchi Memorial Institute of Medical Research, Accra and the Centre for Disease Control and Prevention (CDC), USA. The aim of this study is to describe the epidemiology, economic cost and outcomes of intussusception in Kumasi. Children between the ages of 0-5 years are eligible for this surveillance. This programme which started in February 2012 is scheduled to end in 2017. The R&D unit provides input into this study through data collection and data entry into an EpiInfo database. The study is currently on-going with a total of 45 cases recorded during the period under review.
- ***Profile of patients presenting to Paediatric Emergency Unit of KATH*:** This study aims to profile patients presenting to the Paediatric Emergency Unit (PEU) of the hospital.

DEVELOPMENT AND SUSTENANCE OF THE RESEARCH CAPACITY OF KATH (ACHIEVEMENTS)

- In a move to promote critical review and publication of research work in 2015, a total of four (4) abstracts and two (2) manuscripts were submitted during the period under review. Abstracts were presented in international conferences in Europe and United Kingdom.
- In April 2015, the Research and Development Unit organized workshops in the following areas:

- Principles of Medical Ethics
- Application of the principles of Medical Ethics
- Principles of Good Clinical Practice
- Data generation and Management, etc

The Diploma in Project Design and management (DPDM) admitted a total of 14 students for the year.

- The Research and Development Unit collaborated with the under listed international institutions during the period under review:
  - McGill University Health Center,
  - National Cancer Institute, USA Breast Cancer Study.
  - University of Chicago, MCHH
  - Utah MMS
  - World Health Organisation (WHO).
  - Georgia Southern University.
  - John Hopkins-Medicine
  - Noguchi Memorial Institute of Medical Research, Centre for Disease Control (CDC) and Prevention, USA

PHARMACY UNIT

24

◇Introduction

The unit comprises of Specialist OPD Pharmacy (SOPD), Medicines Management Unit (MMU), Drug Information Service Centre (DISC), Manufacturing Unit (MU) and Pharmacy Accounts.

The core mandate of the Pharmacy Unit is to make available quality medicines for use by patients as well as provide patient centred, outcome oriented pharmaceutical services to patients and other clients. These services are provided through activities of the various Pharmacy Units. The Unit operated with a staff strength of forty (40) during the year under review.

In the year 2015, the Unit activities centered on improving team collaboration with clinicians, answering drug information queries, improving drug availability and revenue generation, attending to all out-patients and offering counselling services to all patients and setting up Quality Control Laboratory.

OUR CORE MANDATE

To make available quality medicines for use by patients as well as provide patient centred, outcome oriented pharmaceutical services to patients and other clients

◇Manufacturing Section

The manufacturing section continues to manufacture the following existing products:

- Morphine sulphate syrup
- Potassium chloride injection
- Caffeine citrate solution
- Electrolyte mineral mix
- Sodium bicarbonate injection
- Magnesium sulphate injection

The following new products were also manufactured during the year under review.

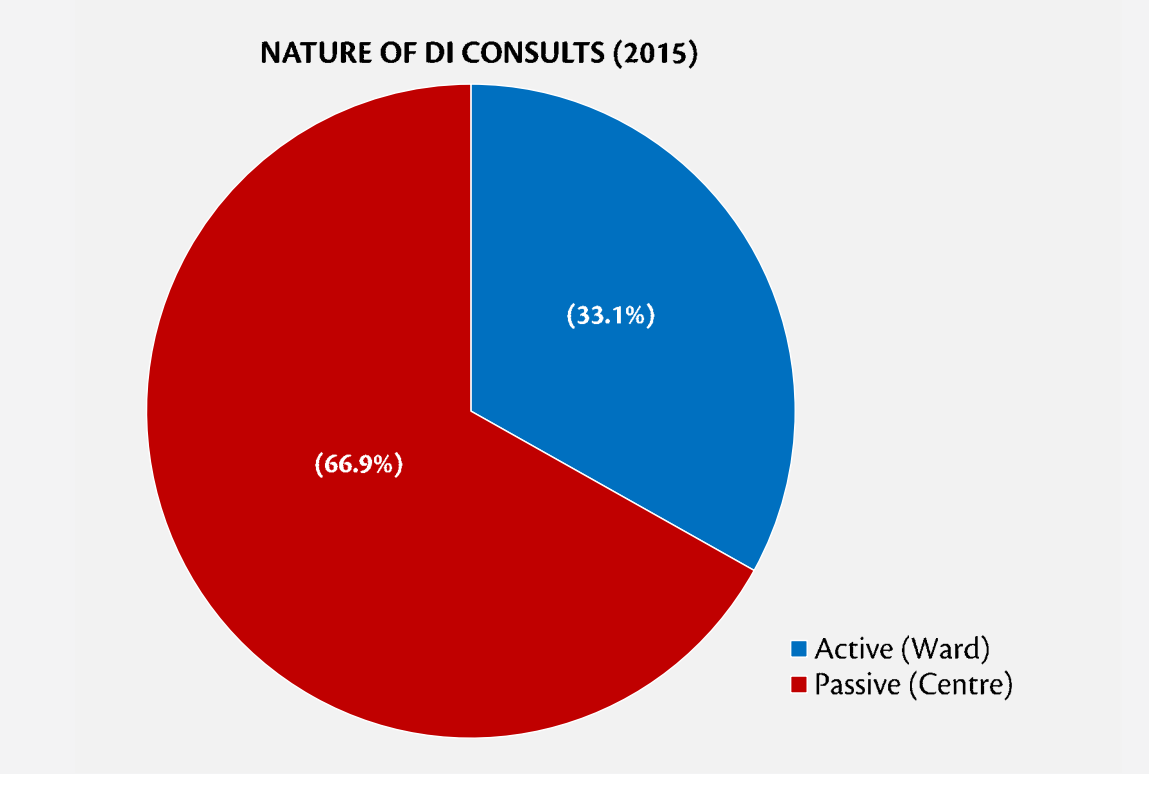
- Atropine sulphate injection
- Itraconazole oral suspension
- Hydroxyurea oral suspension
- Drinking water

A MINI LAB was also set up to assess the quality of some manufactured products at the hospital.

◇ Drug Information Service Centre

In 2015, a total of One hundred and sixty – nine (169) consults were received. 33.1% (56) of the consults were received and answered during general ward rounds and 66.9% (113) received and answered at the centre. This is shown in the figure below. Pharmaceutical care issues that were addressed during the ward rounds were centered on therapeutics and drug availability.

Figure 96: *Distribution of Nature of Drugs Information Consults (2015)*



Majority of the enquiries (consults) were done by doctors (46.2%) and pharmacist (36.1%) during the year under review.

◇ Medicine Management Unit (MMU)

The achievement at MMU was very remarkable, stock value increased about three (3) folds during the year 2015.

SUPPLY CHAIN MANAGEMENT UNIT

25

The Supply Chain Management Unit (SCMU) is responsible for the Procurement of goods & services, Procurement Planning, Contract Award & Management, Maintenance of Procurement database among others (i.e. Consulting, Non-consulting and Technical Services) for the hospital.

By the rating of the Public Procurement Authority from various Supply Chain Management Audits conducted, the SCMU of KATH has graduated from matured to excellence in the practice of Supply Chain Management in the country.

OUR OBLIGATION

Procurement of goods & services, Procurement Planning, Contract Award & Management, Maintenance of Procurement Database among others

◇*Summary of Achievements*

- Twelve (12) National Competitive Tenders (NCTs) were conducted for procurement of: Medicines, Non-medicine consumables, Medical equipment, Works, Services etc. to ensure uninterrupted flow of consumables and services to support healthcare delivery.
- Thirteen (13) sole source applications were approved by PPA for supply of dialysis consumables, supply of reagents and accessories for E411 analyser, and planned preventive maintenance of lifts and generator sets, etc.
- Procurement Plan for 2016 has been prepared and submitted.
- Three (3) ward and user points monitoring exercises were conducted to ensure optimal utilization of consumables, end user satisfaction, improved record keeping and complaints management
- The hospital received donations from some organizations and individuals. The clearing of some of these items were facilitated by the unit through our clearing agent – Ghana Supply Company Limited.
- As a means to ensure quality of consumables delivered, the unit has intensified its sample evaluation and delivery inspection system. All items delivered which does not conform to specifications were rejected and returned to the suppliers who delivered them.
- The Planned Board of survey is still on-going.

◇ Procurement Section

The major activities conducted through National Competitive Tendering (NCT) are as follows:

Table 39: *Tendering Activities, Supply Chain Management Unit (2015)*

#	ACTIVITY	STATUS
1	National Competitive Tendering (NCT) for the supply of non – drug consumables	Completed, Awarded and supplied
2	National Competitive Tendering (NCT) for Outsourcing of Weed Control Services at hospital premises and some selected residence	Awaiting issue of award notification.
3	National Competitive Tendering (NCT) for the provision of cleaning services at Accident &Emergency, Physiotherapy, etc	Awaiting issue of award notification.
4	National Competitive Tendering (NCT) for the provision of Waste Collection Services	Awaiting ETC approval
5	National Competitive Tendering (NCT) for the construction of Housemen Block at Bantama Nurses' Quarters	Opened, Pending Evaluation
6	National Competitive Tendering (NCT) for the Filing of Concrete roof of main Block D	Opened, Pending Evaluation
7	National Competitive Tendering (NCT) for the Maintenance and repair of Glazing Doors and windows within the hospital	Opened, Pending Evaluation
8	National Competitive Tendering (NCT) for the supply and installation of Medical Equipment	Evaluation on-going
9	National Competitive Tendering (NCT) for the supply and installation of Medical Equipment	Opened, Pending Evaluation
10	National Competitive Tendering (NCT) for the supply of Diaries and Calendars	Completed, Awarded and supplied
11	National Competitive Tendering (NCT) for the Construction of Hostel for Patient relatives on Build Operate & Transfer	To be re-tendered
12	National Competitive Tendering (NCT) for the supply of Pharmaceutical items	Evaluation on-going

◇ Five Year Trend Analysis For Achievements

Table 40: *Trend Analysis of Achievement in Supply Chain Management Unit*

#	SERVICE DELIVERY	ACHIEVEMENT FOR 2011	ACHIEVEMENT FOR 2012	ACHIEVEMENT FOR 2013	ACHIEVEMENT FOR 2014	ACHIEVEMENT FOR 2015
1.	Conduct of tender	14 NCTs Conducted	14 NCTs Conducted	14 NCTs Conducted	17 NCTS Conducted	12 NCTS Conducted
2.	Procurement audit / Assessment	Excellent Status	Excellent Status	Excellent Status	Excellent Status	Excellent Status
3.	Board of Survey	1	1	1	1	On-going
4.	Ward Monitoring	3	3	3	3	3

Below are some other major activities conducted through Price Quotation (PQ):

Table 41: *Activities conducted through price quotation in Supply Chain Management Unit*

#	ACTIVITY	STATUS
1	Price Quotation (PQ) for the construction of fence wall at KATH Doctor's flat	Contract has been terminated because of poor performance of the contractor
2	Price Quotation (PQ) for the reconstruction of refurbishment of KATH main entrance	Contract has been awarded, and execution is on-going
3	Price Quotation (PQ) for the repair of fibre glass water tank at Block A-D	Contract has been awarded but yet to be completed
4	Price Quotation (PQ) for the supply and installation of Haematocrit Centrifuge	Contract has been awarded but yet to be supplied
5	Price Quotation (PQ) for drilling of Borehole at Asuoyeboah SSNIT Flat Block7.	Contract has been awarded, drilling and execution been completed
6	Price Quotation (PQ) for supply of iletamin injection, Epicrom 2% eye drop, epicrom 4% eye drop.	Contract has been awarded and items supplied
7	Price Quotation (PQ) for the supply and installation of Sonicaid	Contract has been awarded and items supplied
8	Price Quotation (PQ) for the supply and installation of smoke Detectors at some critical areas within the hospital	Completed and awarded, project execution is on-going

◇ Sole Source and Restrictive Tendering Approvals Obtained from PPA

The Unit has successfully sought for sole source approvals from Public Procurement Authority for the under listed contracts:

SOLE SOURCE

1. Supply of Dialysis medical consumables
2. Supply of Bactec bottles
3. Supply of X-Ray films (Fuji X-Ray films)
4. Supply of reagent accessories and other consumables for Roche analyzer machine & E411 analyzer
5. Extension of the construction of Walk-in-Wooden Rack Cold Room Mortuary System (No.7 area)
6. Supply and Installation of Signal Processor Board
7. Supply, Delivery, Installation and Commission of Biosystem Random Access Analyzer 125 and its reagents.
8. Planned Preventive Maintenance of lifts at A&E
9. Supply and Installation of Aquilion CX (CT) and Vantage (MRI) spare parts
10. Procurement of parts for the maintenance of Anaesthesia equipment
11. Procurement of Two-way Radios (Motorola)
12. Planned Preventive Maintenance of Generator sets within the hospital
13. Planned Preventive Maintenance of lifts at the hospital main Block

RESTRICTIVE TENDERING

Restrictive tendering for the procurement of Auto Hearse

◇ Management services and MIS section

RESEARCH ON CONSUMPTION OF CONSUMABLES:

The Unit embarked on a study into the hospital's consumption of some stock items especially non-drug consumables. It was found that examination gloves, glucometer strips and silicon catheters has a high rate consumption.

The percentage change in consumption of examination gloves from the first half of year 2014 as compared to half year 2015 was found to be 9.07%. Representing an increase in consumption. The hospital consumed 41,790 packs (4,179,000 pieces) of examination gloves for the first half of the year 2015, with an average monthly consumption of 6,965 packs (696,500 pieces). Emergency Medicine, Surgery, Medicine and Child health are among the high consuming directorates.

The hospital also consumed 3,354 packs (167,700 pieces) of Glucometer Strips for the first half of the year 2015, with an average monthly consumption of 559 packs (27,950 pieces). Medicine, Emergency Medicine & Child Health was found to be the high consuming areas. The percentage change in consumption of glucometer strips from the first half of year 2014 compared to half year 2015 was found to be 1.85%. Representing an increase in consumption.

The hospital consumed 7,799 pieces of Silicon Catheters (all sizes) for the first half of the year 2015 with directorates of Surgery, Emergency Medicine, O&G and Child Health being the high consuming areas.

The percentage change in consumption of Silicon Catheters (all sizes) from the first half of year 2014 (16,364 pieces) to half year 2015 (7,799 pieces), was found to be –52.34%, representing a drastic reduction in consumption.

WARD MONITORING REPORT

As part of measures to bring efficiency in the use of Consumable items in the hospital, a monitoring team was constituted to conduct ward stock monitoring on the use of consumable items at the various wards. Three (3) monitoring exercises were conducted for the period under review. The monitoring exercise was conducted at the following directorates of the hospital:

- O&G Directorate
- Child Health Directorate
- Medicine Directorate
- Surgery Directorate
- Family Medicine Directorate
- Emergency Medicine
- Trauma & Orthopedics
- Anesthesia & Intensive Care Directorate

Below are some of the major findings:

Table 42: *Major findings of ward monitoring report*

#	MAJOR FINDINGS	RECOMMENDATIONS/ WAY FORWARD
1	Some of the wards do not keep proper records of items received from stores	Nurse managers and ward in-charges were advised about the need to keep proper records on stock received from stores and the need to account for government stores when they are issued to them.
2	There was difficulty in tracking consumables received from stores to patient folders	Business managers and directorate accountants were advised to check patient folders to ensure that consumables issued to patients are recorded in their folders. The SCMU will liaise with the Internal Audit Unit to check patient folders to trace the supply chain of consumables used for the patient

◇ Stores and Distribution Section

DONATIONS RECEIVED

For the period under review, KATH received donations from seventy-five (75) organizations and individuals. Details are shown below:

Table 43: *Donations Received (2015)*

#	DONOR	DETAILS OF DONATION	ESTIMATED VALUES
1	First Allied Bank (Kumasi)	- Television Set (1 Set) - Decoder (1 Set)	**GH¢420.00**
2	Acare Technology Limited, Taiwan	Anaesthesia Consumables (20Pcs)	**$2,750.00**
3	Orbis International, U.K	- Single use Airway Mask (360Pcs) - Intube Tracheal Tube Uncuffed (570Pcs) - Canon Camera and Memory Card (1 Set)	**€3,979.80**
4	Orbis International, U.K	Suction Machine & its Accessories (67Pcs)	**£21,177.00**
5	Orbis International, U.S.A	Intraocular Lens & Sutures -24pcs	
6	Tecmed PTY Limited, South Africa	Surgical Microscopes – 15 Pcs	**R12,000.00**

7	Herona Company Limited	- Solution Aspirin 75mg Tabs(100's) (2000 Pkts) - Adrenaline Injection 1mg/1ml (500 Amp) - Doxorubicin 50mg Injection (9 Vials) - Vancomycin 500mg Injection (40 Vials) - Vincristine 1ml Injection (8 Vials)	
8	Herona Company Limited	Hydrea 500mg Caps (1000 caps)	**GH¢1,050.00**
9	Women's Health to Wealth	Medicines & Non- Medicines	
10	Women's Health to Wealth	Medical consumables (1,382 Pcs)	
11	Women's Health to Wealth	Medicines & Non- Consumables	
12	Women's health to Wealth	Medicines & Non- Medicines	
13	Women's Health to Wealth	- Drip Drop Hydration Powder (720pcs) - Mauve Mugs (144pcs) - Americares Branded Blanket (100pcs) - Henry Schein Sheer Bandage 1x3 (6000pcs) - Measuring Cylinder 300ml (2pcs) - Tooth Brush	
14	Women's Health to Wealth	- Mucinex 600mg (480 tabs) - Mucinex 1200mg (48 tabs)	
15	Dr Stephen Sarfo	Electroencephalography (ECG) Machine (1 Set)	
16	Fresenius Medical Care, Germany	- Capd 2 Safe 2000ml (52 Pcs) - Capd 3 Safe 2000ml (52 Pcs) - Capd 4 Safe 2000ml (100 Pcs)	**$2,080.00**
17	Central Medical Stores, Tema	Malaria RDT'S (30,000 Pcs)	**GH¢9,000.00**
18	Ihd – Longmeadow National Diabetes Association	- Insulin Premixed30/70 1001U (104 Pcs) - Human Insulin Insulatart 1001U (486 Pcs) - Regular Insulin Soluble 1001U (484 Pcs)	
19	Dr John – Pierre Chanoine, Canada	Florinef 0.1mg-Tablets (Fludrocortsone) (300 Tabs)	**$82.71**
20	Bection Dickinson, S.A.U	Plastic Syringe : 22G*1-1/4", 5ml-394 (500Pcs)	**$2,135.03**
21	Beautiful Creations Company Limited (T.M.U Project Items)	Office Equipment	
22	Beautiful Creations Company Limited	Office Accessories (39pcs)	
23	Beautiful Creations Company Limited	- Flipchart Stand (4pcs) - Donor Bed for Mobile Blood Collection (24pcs)	
24	The Regional Coordinator Vodafone Ghana-- Ashanti	- Non – Medicine Consumables (204pcs)	

25	Africa Must Thrive (NGO)	- Pre-School Books (107pcs) - Lower Primary Books (93pcs) - Upper Primary Books (76pcs) - Dictionary (5pcs) - Work Book 1 (55pcs) - Work Book 2 (60pcs) - Other Children Books (82pcs)	
26	Aurolab	Intraocular Lens & Sutures Aurosphere (330pcs)	**£4,170.80**
27	Aurolab INDIA	SICS – CATARACT Surgery Kits	**$8,050.80**
28	UTI Johannesburg	Medical Consumables (28pcs)	**$24,162.41**
29	Former Theatre Nurses	Zimmer Frames (Walker) (25pcs)	**GH¢1,250.00**
30	Ruma Fertility & Specialist Hospital	Coved Mattresses (65pcs)	**GH¢16,250.00**
31	Direct Relief International, USA	Medicines (drugs)	**$1,805.60**
32	Direct Relief International, USA	Medicines	**$1,541.18**
33	Direct Relief International, USA	Medicines	**$1,591.37**
34	AGVAD (GHS/MOH)	Weyer Neonatal Infant Incubator (2 cases)	
35	Sekaf Ghana Limited	Shea Butter & Baby Oil (119pcs)	**GH¢250.00**
36	Dr Rocky Oteng-Lead Clinician Emergency Medicine	- Dissecting Forceps (380pcs) - Small Scissors (10pcs) - Artery Forceps (80pcs) - Needle Holder (49pcs)	
37	Nana Dwomoh Sarpong	Cloth (Half Piece) (5pcs)	
38	Vision 2020 Low Vision Resource Centre (10 packages)	- Magnifiers (361pcs) - Telescope (110pcs) - Printed Card (14pcs) - Ophthalmic Instrument (21pcs) - Spectacle Glass Lenses (2pcs) - Walking Sticks (20pcs) - School Stationery (40pcs)	**$17,080.00**
39	Regional Medical Stores - Ashanti	Plumpy Nut (25pcs)	
40	Regional Medical Stores - Ashanti	Medical Consumables	
41	Chances & Opportunity Ventures	- 9000-220EW Machine (2pcs) - Trolleys (2pcs) - PSS-UPS (2pcs) - Consumables (HA-112320-1E) (2pcs) - Consumables (HA-426C) (1pc)	
42	Ghana Nurses Association, Dallas, Texas, USA.	Medical Consumables	
43	HCL Infosystems Limited	Numeric 5KVA HP Max Online UPS (2sets)	**$4,396.00**

44	Mrs Comfort Ashuagbor	Nebulizer (1pc)	
45	Atachy Construction (Through Dr Eyeson)	Sphygmomanometers (3no)	
46	Kean Health Medical & Diagnostics Services	Trolleys (1pc)	
47	SAQS Pharmacy (Through Dr Eyeson)	Dressing Tray (1pc) Wheel Chair (1pc)	
48	Unicare Pharmacy (Through Dr Eyeson)	Desktop Computer (1 set)	
49	Staff Association of Access Bank - Kumasi	- Swivel Chairs (3no) - Wheel Chairs (2no) - Sphygmomanometer (1no) - Couch (1no) - Patient Screen (1no) - Visitor's Chair (4no)	
50	Himalayan Cataract Project. - Cureblindness Org.	Medical Equipment	**$18,000.00**
51	Himalayan Cataract Project - Cureblindness Org.	Iridex oculight & its accessories	**$5,000.00**
52	Himalayan Cataract Project - Cureblindness Org.	Alcon Infiniti V3.0 & its accessories	**$16,000.00**
53	Himalayan Cataract Project	Solar Panels (8 packages)	
54	Himalayan Cataract Project	Inverters (out-battery Inverter GGRID Tie) (6 sets)	**$27,878.00**
55	Himalayan Cataract Project	Medical Waste Containers (155pcs)	
56	Himalayan Cataract Project	Medical Equipment (29pcs)	
57	Himalayan Cataract Project	- Outback 2700 AGM 48V Batteries (48 sets) - Racking/Cabinet for Batteries (2 sets)	
58	Himalayan Cataract Project	- Rubbermaid Standard Duty Tilt Truck (1 set) - Hinged black lid for Tilt Truck (1 set)	**$859.46**
59	Acheamfour Group of Companies	- Diapers (930pcs) - Wipes (12pkts) - Omo 5kg (3gals) - Ideal Milk (72 tins) - Milo 400g (24 tins) - Dettol (18pcs) - Key soap (16 bars) - Sugar 25kg (1 bag)	
60	Pelican Cargo Limited (Evans Ofori Twum)	Haemoglobinometer & its accessories	**GH¢14,825.00**
61	Miss Rose Adams - Kitchen Supervisor	Patient Structure (3pcs)	

62	International Diabetes Federation, IDF	- Clover AIC Self-Test Cartridge (150pcs) - Clover AIC Self Monthly Check Cartridge (10pcs)	
63	Justice Funds	Provisions & Kitchen Items	
64	KNUST Students (Somuah Boateng, Ransford Adokoh and Fiifi Baiden)	- Special ice mineral water (110btls) - Milo 400mg (36 tins) - Rush energy drink (43btls) - Peak milk (96btls) - Canned coke (24 tins) - Sugar cubes (10pkts) - Camel antiseptic dettol (18pcs) - Toilet roll (50 rolls)	
65	Boston Children Hospital	Medical Supplies (10 packages)	**$12,801.01**
66	Glaxo Smith Klinapharma	Suction Machines (1 set)	
67	Prof Ralf DE Geest (Best Africa Services)	Dialysis Machine	
68	Mr Osei Owusu Francis	Wheel Chairs (1 set)	
69	USAID/GHANA	Immersion Oil 8CC (1 bottle)	
70	USAID (Mebs)	Microscopic Equipment 57kg (1pc)	
71	Kumasi Asafo Union, U.K	Medical Equipment	
72	Complant International Transportation SZ Company, CHINA	Medical Consumables	
73	Mr Amburah Benjamin Kamiomenye	Provisions	
74	KATH Ex-Nurses Practitioner's Association (U.K)	- Digital Thermometers (72pcs) - Infra-Red Thermometers (1 set) - Dynamap Monitor with Stand (2 sets)	
75	Toyota Ghana Company Limited, Kumasi Branch	Patient Beds (2no)	

BIOSTATISTICS UNIT

26

◇Background Information

The Biostatistics unit historically was among the few Departments set up since the establishment of the hospital in 1955. The unit plays a critical role in the healthcare delivery and is the first point of call for all clients who visit the hospital. It was formerly referred to as the Medical Records and Statistics Department. The unit operates and reports directly to the Chief Executive Officer of the hospital. The Biostatistics unit is responsible for the collection and management of health records in the hospital through traditional and electronic means. The core mandate of the unit is outlined in these five (5) broad areas:

- Register patients into the hospital system.
- Issue cards and folders to patients in the hospital.
- Keep patients' records in the hospital.
- Compile and analyse both clinical and administrative data in the hospital.
- Undertake research activities.

The staff strength of the unit is forty-six (46). The activities of the unit are decentralized into the various clinical and non-clinical directorates. Staff of the unit are distributed among these directorates and are supervised by the management teams of the respective directorates. However, there are Biostatisticians in almost all the directorates as sectional heads/in-charges who are responsible for the day – to-day administration of the unit in the various directorates. The head of the unit is responsible for providing and equipping all staff in the unit with the technical expertise for their respective duties. This is usually done through on-the – job training, in-house and external training workshops, and conferences.

As the main repository of all clinical and administrative data in the hospital, the unit has been very much involved in almost every research activity in the hospital. Also, the strength of being the custodian of patients' information provide an opportunity for the unit to continue to provide research support in the form of data collection, data compilation, analysis and interpretation to both researchers within and outside the hospital.

CORE MANDATE

Register Patients into the Hospital System

Issue Cards and Folders to Patients in the Hospital

Keep Patients' Records in the Hospital

Compile and Analyse both Clinical and Administrative Data in the Hospital

Undertake Research Activities

SOCIAL WELFARE UNIT

27

The Social Welfare Unit of Komfo Anokye Teaching Hospital seeks to improve the psychosocial needs of patients and other health workers in the hospital setting.

◇ Achievements

Table 44: *Achievements in Social Welfare Unit*

NO	ACTIVITY	OUTPUT	RESULTS
1	**Conduct social investigations on the background of patients**	Background information on 1,942 conducted	- Patients received support in the payment of their bills - Patients received free diagnostic services - Patients were given care and protection - Patients neglected or abandoned by their families reunited with them
2	**Contact patients' relatives and trace defaulters**	1,053 patients and relatives contacted	- Patients received assistance from relatives in the payment of their bills. - Defaulters came to settle their bills. - Patients' relatives came to visit them - Patients reunited with relatives whom they had not seen for a long while
3	**Provide assistance to students on attachment and field work**	74 students assisted	- Students gained practical knowledge and experience - Strengthened collaboration between KATH and tertiary institutions
5	**Write social enquiry reports to management to seek approval for waiver and instalment payment of patients bills**	386 reports written	- Approval received from management for patients to be discharged thereby reducing the length of stay - Approval secured for the admission of patients into homes for care and protection.
6	**Provide help to abandoned babies**	29 babies provided with help	- Babies given care and protection at the Kumasi Children's Home and Missionary of Charity Home

7	**Provide counselling services**	1,354 patients counselled	- Patients accepted their medical treatment and agreed to treatment. - Patients rescinded their decision of requesting for discharge against medical advice - Patients agreed to interventions provided for them by the unit - Patients counselled on NHIS went to register
8	**Advocate for financial and material resources for needy patients**	26 patients supported with GH¢21,755.88 donation received from 2 corporate organizations	- Reduction in patients' length of stay - Decrease in number of patients unable to pay their bills

◇ *Categories of Social Issues Handled During the Year 2015*

Table 45: *Social Issues Handled in Social Welfare Unit (2015)*

NO	ISSUE	OUTPUT	INTERVENTION
1	**Inability to pay medical bills**	740 patients	Installment-558 patients Waiver – 54 patients Full payment-105 patients
2	**Inability to afford drugs, diagnostic services or consumables**	258 patients	Requests for free services were written to management
3	**Patients abandoned by their families**	103	29 patients sent to Children's Home 1 patient was sent to Destitute Infirmary 73 patients reunited with their families
4	**Discharge against medical advice**	32 patients	All patients were counselled 15 rescinded their decision 16 patients were discharged 1 was referred to DSW and Attorney General's Department.
5	**Unknown patients/relatives**	46 patients	2 patients were published in the media 42 were reunited with their families 2 died
6	**Victims of abuse/assault**	22 patients	Patients were referred to DOVVSU

7	**Attempted suicide**	2 patients	Patients were counselled One patient was referred to Police for further investigation
8	**Victims of substance abuse**	37 patients	Patients were counselled
9	**Victims of domestic accidents**	124 patients	Patients, parents, caregivers and guardians were counselled
10	**Attempted abortion**	10 patients	Patients were counselled
11	**Chronic/critically ill/ patients with life limiting conditions**	415 patients	Patient and their families were counselled

INFORMATION COMMUNICATION TECHNOLOGY

28

◇Introduction

The vision of the Information Communication Technology (ICT) unit is to maximize the potential for Information Communication Technology in achieving strategic goals of KATH.

The main aim of the unit is to use technology to achieve institutional missions such as measuring patient outcomes, operating efficiently, cutting costs, educating students, and supporting research. The unit has staff strength of fifteen (15).

Table 46: *Hardware Infrastructure (Equipment List)*

SERVER	WORK STATION	PRINTER	SCANNER	UPS	SWITCH	LAPTOP
5	387	142	19	160	63	22

◇Achievements

SYSTEM SECURITY

The following achievements were made under software activities:

- Upgraded and installed security and vulnerable software on KATH IT systems.
- Installation of a new database server which was configured for the HAMS software.
- About 1,102 data were backed up during the period under review.

SOFTWARE

- 15,221 updates done on various Microsoft Operating systems
- 46 installation of operating system on workstations (New installation and reinstallation).
- 73 routine works on the servers

OUR VISION

To Maximize the Potential for Information Communication Technology in Achieving Strategic Goals of KATH

KATH SOFTWARE:

Currently, the HAMS software is being run at the following service points:

- Family Medicine Directorate (Records, consulting rooms, wards, pharmacy and the Accounts)
- Health Insurance Unit
- Specialist OPD area (Records and pharmacy)
- Eye Centre (Records and Pharmacy)
- ENT (Records and Pharmacy)
- Medicine Management Unit
- ICT Unit

The following works on HAMS software were done,

- Reconfiguration of the HAMS database
- Full system upgrade with new features
- Migration from paper based claims submission to Electronic claims submission
- Creation of 476 user accounts (A total of 1,369 accounts)
- Phase 2; 40% completed with the following modules
  - *Asset Registry Module*
  - *Human Resource module*
  - *Laboratory module*

◇ Hardware Support

In 2015, the unit was able to install new equipment, repair and replace faulty equipment in the hospital.

The table below indicates the installations done.

Table 47: *New Installations in ICT Unit*

EQUIPMENT	QUANTITY
System unit	60
Monitor	70
Printer	40
Ups	29
Switches	17

EQUIPMENT REPAIRS

The table below indicates the frequency of maintenance on all equipment. This includes routine maintenance as well.

Table 48: *Equipment Repairs in ICT Unit (2015)*

EQUIPMENT	FREQUENCY
System unit	653
Monitor	39
Printer	268
UPS	153

NETWORKING

The following are the computer network engineering issues during the year under review.

1. ***Network Status***
   336 workstations and 5 servers are connected to the KATH LAN with 246 of computers in the Active Directory.
2. ***Internet Services***
   - A total of 106 computers are connected to the Internet (90% being used at the administrative offices).
   - The internet service was worked on 64 times.
3. ***Network Monitoring***
   - The DNS was pruned 8 times.
   - Active directory related problems were resolved: 5.
   - Network scans using vulnerability security software: 2,577.
4. ***Website***
   - Restructuring of the website is ongoing. Procurement of new management software has delayed.
5. ***Email***
   - User accounts: 545 have been created so far with 209 of them activated.
   - New accounts: 11 were created.
   - Mails: 14,962 were sent.
   - Mails: 15,460 were received.

- Spams: 1,395 were detected.
- Maintenance works: 238 were done on the system.
- Installation of a new server

6. ***Network Engineering***
   - Installation of temporal network connection to the oncology directorate was done.
   - Network points: 45 were added to the existing network.
   - About 148 minor works were undertaken during the period.

OTHERS

- Management of kathsp domain was undertaken by the Unit
- Reconfiguration of the Active Directory
- Installation of new server

TRAINING

- Four hundred and ten (413) staff have been trained on the use of HAMS software
- Three (3) CPD training meetings were held for the Unit staff in the year under review

PUBLIC HEALTH

29

OUR SECTIONS

ONE
Disease Control and Surveillance

TWO
Occupational Health and Preventive medicine

THREE
Public Health Nursing

FOUR
Public Health Research

◇Introduction

The Public Health Unit (PHU) is a unit under the Office of the Medical Director. The PHU currently has the following sections: Disease Control and Surveillance, Occupational Health and Preventive medicine, Public Health Nursing and Public Health Research. The unit currently has staff strength of 58.

◇Disease Surveillance and Control

The following communicable diseases were recorded in KATH during the period under review:

ACUTE FLACCID PARALYSIS

Five (5) suspected cases of AFP were recorded for the period under review. No report was received from the reference laboratory.

CHOLERA

A total of 20 suspected cases of cholera (12 males and 8 females) were recorded. Seventeen patients had rectal swabs sent to the microbiology laboratory for investigation. Seven of the samples had *Vibrio cholerae* isolated from rectal swabs.

The demographic characteristics of the confirmed cases indicated all were from the Ashanti Region. One case fatality was recorded for the period (case fatality rate of 5%). This case was however brought in dead and a post mortem rectal swab confirmed the diagnosis.

DIARRHOEA WITH DEHYDRATION IN CHILDREN UNDER 5

A total of 84 cases of diarrhoea with dehydration in children less than 5 years of age were recorded in KATH in the year 2015. Thirty-four (34) cases representing 40.4% were recorded among children less than twelve (12) months of age. The majority of cases, (60 representing 71.4%) of cases were male. Two deaths were recorded during the period under review giving a case fatality rate (CFR) of 2.3%.

MALARIA

From our laboratory surveillance, for year 2015, the Haematology laboratory received 13,299 requests for microscopic malaria parasite examination out of which 626 (4.7%) were confirmed to have malaria parasites. Of the confirmed cases, 287 (45.8%) were females, 281 (44.9%) were males and as many as 58 laboratory requests (9.3%) did not have the gender of the patient indicated on the request form. Among the microscopically confirmed cases, 216 (34.5%) were in children less than 5 years of age.

MALARIA IN CHILDREN UNDER 5 YEARS

Clinical surveillance of malaria in children under 5 years from January to December 2015, recorded 1,062 cases from Consulting Room (CR) 10, Paediatric wards and Family Medicine Out-patients' Department (OPD). Six hundred and thirty one cases (59.4%) were male and 431 (40.6%) were female. A total of 351 cases (33%) were in-patient. Children aged 0-12 months accounted for the highest proportion (33.4%) of the cases. Eleven deaths occurred among the in-patients giving a case fatality of 3.1%.

MEASLES

Thirteen (13) cases of suspected measles were reported in the year 2015, 7 (53.6%) males and 6 females. Four cases (30.7%) were recorded in children less than 9 months of age (i.e. infants yet to receive measles vaccine). Nine (9) samples tested negative for measles and Rubella. The results for 4 of the samples are yet to be received. No mortality was recorded during the period under review.

MENINGITIS

Laboratory surveillance for meningitis recorded a total of 368 suspected cases with samples sent to the Microbiology laboratory from January to December 2015. The majority of the cases (205 representing 55.7%) were male. The laboratory isolated *Streptococcus pneumoniae* from 4 samples, Cryptococcus from 2 samples, five cases of coagulase negative staphylococcus and one case of *Staphylococcus aureus.*

PNEUMONIA IN CHILDREN UNDER 5 YEARS OF AGE

In the year 2015, a total of 468 children less than 5 years of age were diagnosed with pneumonia. Among all cases, children under 12 months accounted for the highest proportion of admissions with 249 (53.2%) with the number of cases decreasing with increasing age. 278(59.4%) of the recorded cases were males and 190 (40.6%) were females.

Forty (40) deaths were recorded (CFR of 8.4%). The CFR was highest among the age group 24-36 months (12.9%) and lowest among the age group 48-59 months (5.9%).

RABIES

Twelve cases of rabies were recorded during the period under review. The majority of cases (8 representing 66.7%) were males. All the cases died on admission (CFR 100%).

TUBERCULOSIS

A total of 485 TB cases (both adult and paediatric) were reported at the chest clinic during the period under review. A total of 278 cases representing 57.3% were males and 207 (42.7%) were females. The categories of cases included 74 new smear positive cases, 207 new smear negative cases, 118 extra pulmonary, 10 Re-treatment cases, 61 clinically diagnosed cases which were all paediatric cases and 14 others (which included defaulters, relapsed). Forty-six (46) deaths from TB (CFR 9.45%) were recorded during the period under review.

VIRAL HAEMORRHAGIC FEVER

There were three suspected Ebola viral disease (EVD) cases seen within the period under review. All three cases were seen in the first quarter of 2015. All the 3 samples tested negative for EVD and other viral haemorrhagic fevers.

◇ Maternal and Child Health Centre (MCHC)

The Maternal and Child Health Centre is a subunit of the Public Health unit and provides maternal and child health preventive services.

VACCINE HANDLING AND MANAGEMENT

The MCHC is responsible for the management of vaccines for Ghana's Expanded Programme on Immunisation (EPI) in KATH. During the year under review, the unit received a World Health Organisation (WHO) standard vaccine storage fridge (Domestic TCW 3000; registered number 3494-15) on the 2nd March 2015 from the Ghana Health Service Kumasi Metropolitan Directorate Stores. This advanced fridge with its in-built thermometer together with another mobile one has allowed for significant improvement in the monitoring of the temperature in the vaccine storage refrigerator.

ADVERSE EVENTS FOLLOWING IMMUNISATION (AEFI) MONITORING AND REPORTING

Six (6) cases of AEFIs were recorded during the year under review. All affected children were referred for specialist attention. The AEFI reporting form was filled for the respective patients and submitted to the Food and Drugs Authority (FDA) for safety confirmation.

SICKLE CELL SCREENING

Routine screening of eligible children for sickle cell disease was carried out for children less than six (6) months of age. The new born screening unit at A1 screened 5,504 babies for sickle cell.

DAILY HEALTH EDUCATION AND COUNSELLING

Health education sessions were held for clients accessing services at the MCHC. During the period under review, a total of 227 health education sessions were conducted.

The following topics were covered during the period: Importance of Immunization, Respiratory Tract Infections (cough, colds, and pneumonia), Tuberculosis, Malaria, Use of Insecticide Treated Nets (ITN), Diarrhoeal Diseases, Exclusive Breastfeeding and Infant Feeding, Family Planning, Hygiene, Home Accidents, Skin and Eye diseases, HIV/AIDS and Safe Motherhood. Additional information is given on family planning, cervical cancer or any issue of Public Health importance for the period.

IMMUNIZATIONS

Children are given vaccines at the Maternal and Child Health Centre of the unit as per Ghana's EPI schedule. Table 49 gives a summary of the vaccines in the Expanded Program on Immunization and the number of children vaccinated. A dropout rate of 68.4% was recorded in the period under review. The disparities in the oral vaccines (OPV, Rotavirus) and the injections (Pentavalent, PCV) which required concurrent administration was due to the shortage of needles and syringes in other facilities. Some clients visited KATH for those services.

Table 49: *Numbers of Children Receiving the Various Vaccines*

VACCINE	NO OF DOSES ADMINISTERED
BCG	10,190
OPV 0	10,179
OPV 1	3,651
OPV 2	3,264
OPV 3	3,076
DPT/Hib/HepB 1	3,691
DPT/Hib/HepB 2	3,386
DPT/Hib/HepB 3	3,090
PCV – 1	3,686
PCV – 2	3,388
PCV – 3	3,111

Rotavirus – 1	3,651
Rotavirus – 2	3,241
Yellow Fever	2,954
Measles/Rubella	3,221
Measles – 2	2,189

The Tetanus toxoid-containing vaccine currently being administered to pregnant women is Tetanus-Diphtheria (Td). Hitherto, the Tetanus Toxoid (TT) was the vaccine administered. The vaccine is administered both at MCHC and PMTCT clinic. A total of 3,492 pregnant women received the Td vaccine in 2015. Generally, there has been a decline in the number of children receiving vaccines at the KATH – MCHC and other sites within KATH (Figure 97).

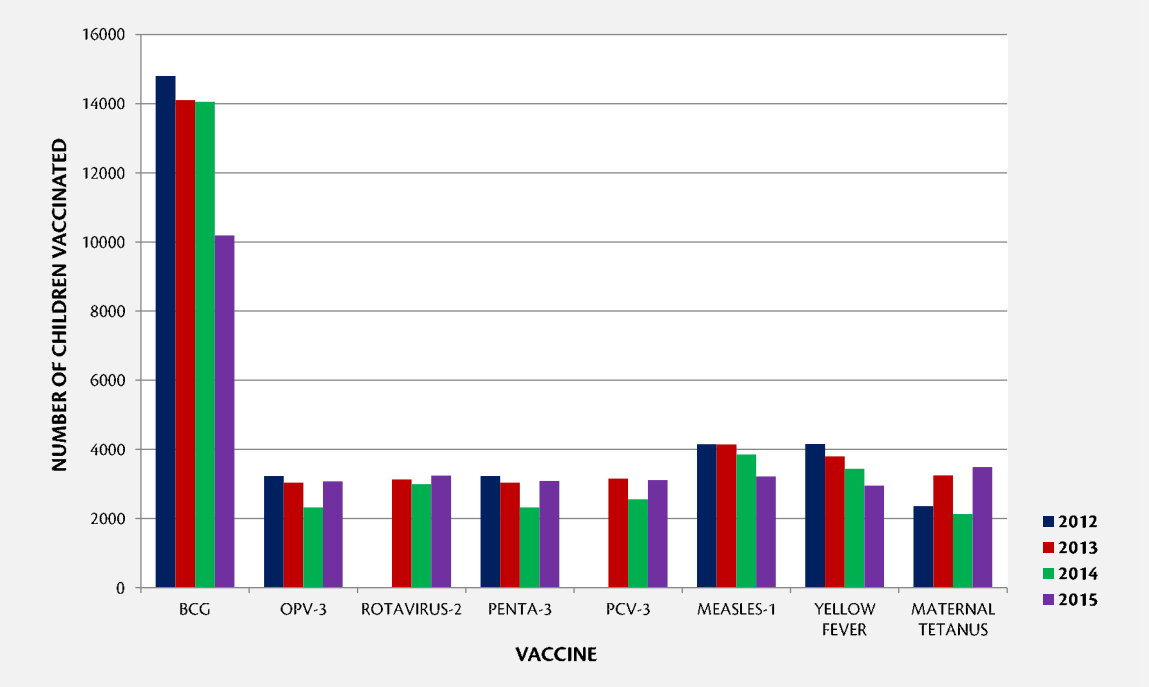
GROWTH MONITORING

A total of forty-two thousand, three hundred and seventy (42,370) episodes of child growth monitoring (weight monitoring) was undertaken during the period under review. The majority (97.9%) of episodes recorded a weight gain compared with 678 (1.5%) who recorded no weight gain and were at risk of malnutrition with (184) 0.4% considered malnourished.

DISTRIBUTION OF INSECTICIDE NETS

The unit distributed a total of 3,929 LLIN to eligible clients of the clinic during the period. Among this number, 1,543 was given to pregnant women with children 18 months of age receiving measles 2 or booster dose receiving 2,386 nets.

Figure 97: *Trends in EPI vaccine uptake in KATH (2012–2015)*



VITAMIN A SUPPLEMENTATION

A total of 6,811 doses of Vitamin A were administered to eligible children during the period under review. The majority (54.5%) of recipients were 12 months of age or older.

◇ Occupational Health and Preventive Medicine

The Occupational Health and Preventive Medicine Section of the unit is responsible for activities aimed at promoting the health and preventing illness among staff.

HEALTH EDUCATION AT SELECTED CLINICS AND OPDS, 2015

Topics treated in the year 2015 included Cholera, Malaria, Hypertension, Rabies and Upper Respiratory Tract Infections (Common cold). Staff from the unit reported at the designated sites for scheduled Health Education sessions. The sites for the health education sessions during the period were the Main OPD, Consulting Room 8, Family Medicine Directorate, Physiotherapy Unit, ENT Department, Cleft clinic - Dental Unit, Club foot clinic, Eye Centre, Maternal and Child Health Clinic and the Chronic Care Clinic of the Family Medicine Directorate. A total of 78 health education sessions were carried out in the year under review.

Two major external Public Health and Clinical outreaches were organized during the year; members of the general public were educated on healthy living. The Team also facilitated occupational health workshops for Fan Milk vendors.

POST EXPOSURE PROPHYLAXIS (PEP) FOR HIV

In the year under review, a total of 70 persons including KATH staff received PEP following occupational exposure to potentially infectious body fluids and tissues. In addition to this number, 14 rape survivors also received PEP during the period under review. The categories of exposure and the staff receiving Antiretroviral (ARV) medicines for PEP during the period are as shown in Table 50.

PREVENTION OF MOTHER TO CHILD TRANSMISSION (PMTCT) OF HIV AND SYPHILIS

In the year under review, the total ANC registrants were 1,545. The trend in PMTCT from 2012 to 2015 is as shown in the table.

Table 51: *Trends in PMTCT for HIV in KATH, 2012 to 2015*

INDICATORS/ YEAR	2012	2013	2014	2015
# of ANC Registrants	2,044	2,455	1,897	1,545
# Tested & received post-test counselling	1,992	2,257	1,916*	2,102*
% Tested	97.5%	91.9%	90.9%	100%
# Positive (%)	105 (5.3)	94 (4.2)	87 (4.5)	62 (2.9)
# Given ARVs	95	89	87	67*
% Given ARVs	90.4%	94.6%	100%	100%

***Includes** *referrals from other health facilities*

SYPHILIS SCREENING

Syphilis screening was undertaken for 1,046 pregnant women accessing ANC services in KATH. Four (0.4%) tested positive and were given the recommended treatment. The number tested represents 67.7% of all ANC registrants (1,545) in KATH.

Table 50: *Categories of Exposure and Occupational Category for Persons Receiving PEP for HIV in KATH (Jan-Dec 2015)*

EXPOSURE CATEGORY	DOCTORS	NURSES	OTHER STAFF	NON STAFF	TOTAL
Splash of body fluids on intact skin	4	3	0	0	7 (10.0)
Muco-cutaneous exposure	2	3	1	0	6 (8.6)
Injury with solid needle	11	7	7	0	25 (35.7)
Superficial injury	0	1	0	0	1 (1.4)
Injury with hollow needle	5	14	10	1	30 (42.9)
Deep and extensive injury	1	0	0	0	1 (1.4)
TOTAL	23 (32.9)	28 (40.0)	18 (25.7)	1 (1.4)	70 (100.0)

EARLY INFANT DIAGNOSIS (EID)

EID is done for infants born to HIV positive women ideally at 6 weeks after delivery to assess their HIV status. During the period, a total of 91 results for infants born to HIV positive mothers were received from the laboratory with 5 (5.5%) testing positive.

HIV TESTING AND COUNSELLING (HTC)

In the year under review, a total of 3,053 clients reported at the HTC centre of the Public Health Unit. Females constituted the majority with 1,850 (60.6%). The categories of clients accessing HTC services during the period are as shown in the table below.

Table 52: *Categories of clients accessing HTC services in KATH, Jan – Dec 2015*

TYPE OF CLIENTS	FREQUENCY	PERCENTAGE (%)
Requested by a clinician	1,554	50.9
Walk-in	862	28.2
Confirmation of a positive result	540	17.7
ANC	39	1.3
Post Exposure prophylaxis	27	0.9
ANC & Confirmation of a positive result	14	0.5
Rape/Defilements	5	0.2
Not indicated	12	0.4
TOTAL	**3,053**	**100.0**

There has generally been a decline in services uptake at the KATH – HTC centre over the last few years.

PUBLIC HEALTH RESEARCH

During the year under review, the unit supported some staff of the hospital to conduct desk reviews and produce abstracts for local and international conferences. The unit also led in conducting some research. A total of ten (10) abstracts were presented at both local and international conferences. There were three (3) publications by the staff of the unit during the year under review.

TRAININGS

Pre-service Training

The unit is involved in pre-service training of various categories of health staff. During the year under review, 25 pre-service trainees (Nurses, Midwives and foreign trained doctors) in addition to 2nd year clinical students of the Kwame Nkrumah University of Science and Technology (KNUST) underwent various forms of training during the period.

In-service Trainings (Internal and External)

- Training on Surveillance and case management of cholera, meningitis and Ebola sponsored by the National Surveillance Unit, GHS and Ashanti Regional Health directorate
- Malaria prevention and case management trainings: This was sponsored by the NMCP. Nine (9) sessions were held and 356 staff were trained.
- One week training on Sickle Cell Disease for a community health Nurse in Accra
- Training on the insertion of Family Planning Implants by the GHS – A community Health Nurse from the Unit participated in the training
- Seminars for Public Health staff to update knowledge on specific public health issues were organised during the year. The following topics were covered: Disease surveillance, Immunization schedule, Cold chain management, Introduction of fridge tag, etc.

SECURITY UNIT

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◇Background

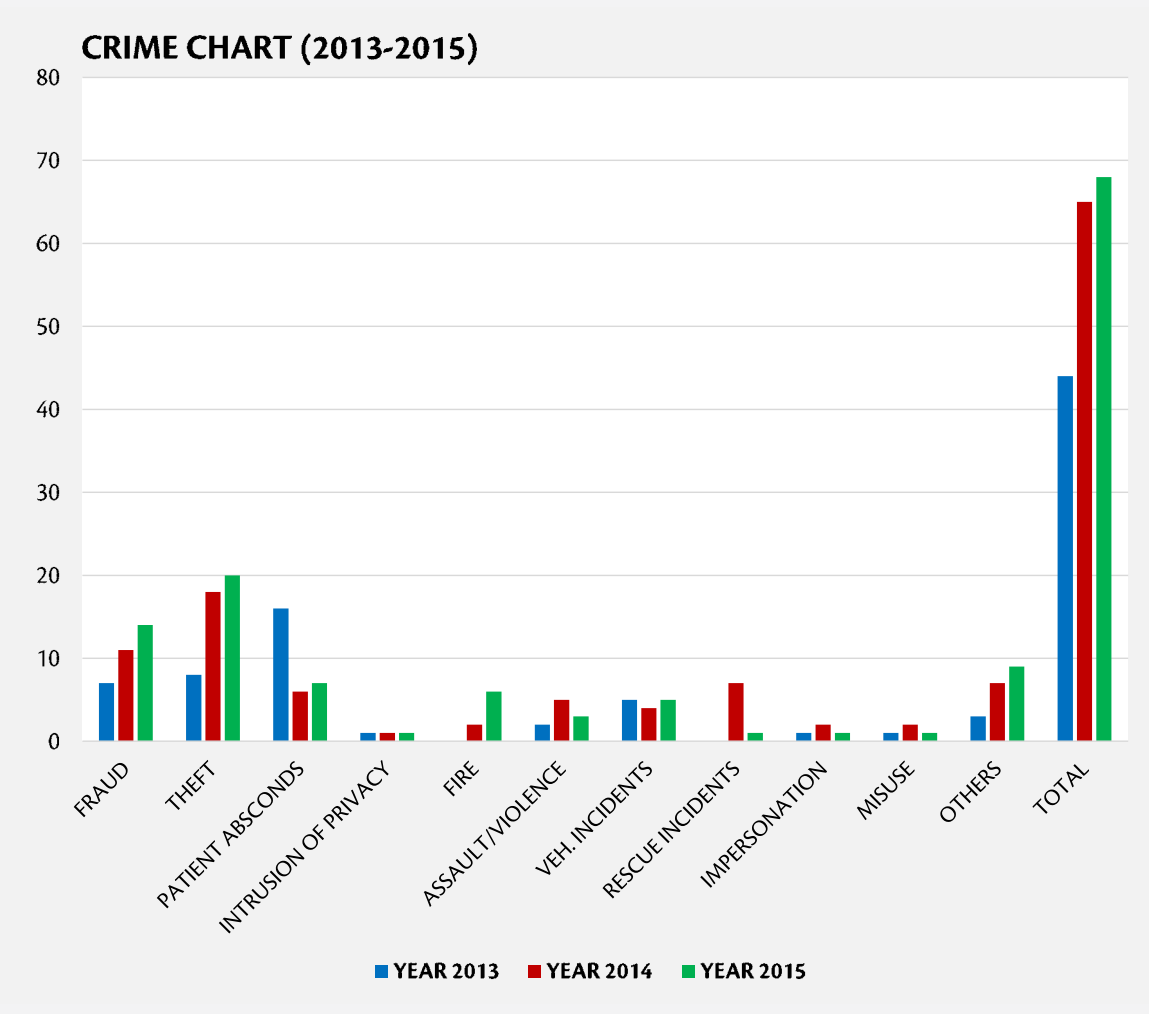
The security Unit is mandated to provide safety and security for staff, patient, visitors and properties of KATH. The vision of the Unit is to become a professional security provider comparable to international standards and the mission is to provide excellent safety and security for personnel and property in a hospital setting.

Security Management is the whole process of design and implementation of an Asser Protection Program of an enterprise through the application of risk management, information gathering and analysis (intelligence), strong control measures, effective standards, policies and procedures, critical incident management and investigations.

Other threats to corporate stability include financial mismanagement violation of established business standards, conflict of interest, etc. these are managed by security expert as they constitute security threat to any enterprise such as KATH.

More and More Staff are Cooperating with Security and Playing Vigilante Roles by Reporting Cases and Suspicious Activities Due to New Approaches Adopted.

Figure 98: *Comparable Statistics of Cases Recorded and Tackled by Security Unit (2015)*



From the chart above, most crime cases recorded in the year under review have seen marginal increases over the previous years' cases except, intrusion of privacy, rescue incidents, impersonation, misuse and others. Theft and fraud cases have increased by about 11% and 27% respectively over the previous year. The difference is that most of the theft cases recorded in 2015 were from staff residences. The fraud cases were mainly financial (extortion, understatement of bills/receipts, etc). Stronger security countermeasures in fighting same have been put in place.

The overall increase in the number of cases recorded over 2015 half-year was partly due to increased security alertness, activity and reporting. Additionally, more and more staff are cooperating with Security and playing vigilante roles by reporting cases and suspicious activities due to new approaches adopted.

CHALLENGES AND MITIGATION STRATEGIES

LATE REFERRALS OF PATIENTS FROM LOWER LEVEL INSTITUTIONS

- Undertaking of Outreach support programmes
- Improving communication systems b/n KATH and Peripheral Institutions

CONGESTION, ESPECIALLY AT MATERNAL & CHILDREN'S WARDS

- Completion of the maternal and children's block (Level of completion – 65% – civil works)
- Maternal and Child Health Outreach programmes

ACCOMMODATION FOR HOUSE OFFICERS AND RESIDENTS (HIGH COST OF RENT)

- Construction of new housemen's' flats

TRAINING OF MEDICAL STUDENTS & OTHER HEALTH TRAINEES AND ASSOCIATED COST

DELAYS IN THE PAYMENT OF HEALTH INSURANCE CLAIMS AND UNREALISTIC TARIFFS

- Continuous Dialogue with National Health Insurance Authority

PROLONGED DOWN TIME OF MRI AND CT-SCAN MACHINES & IMPLICATIONS ON QUALITY OF CARE

- Involvement of the hospital in the development and management of maintenance contract of critical equipment

INADEQUATE CLINICAL STAFF, PARTICULARLY SPECIALIZED NURSES

- Train more nurses in the various sub-specialties

AGEING VEHICLES

- The hospital requires additional vehicles to operate efficiently

◇ Summary Activities/ Projects for the Year 2016

- Quality health care delivery, leading to better health outcomes, especially in maternal and child health.
- Establishment of Nuclear Medicine treatment and diagnostic centre.
- Rehabilitate the Old Hospital Block (A-D).
- Provide infrastructure for clinical training of students from KNUST.
- Intensify planned preventive maintenance activities.
- Provide outreach services.
- Strengthen collaboration with other Institutions.
- Continue efforts in securing the necessary funds for the completion of the children and maternity block
- Provide Support to the Peripheral facilities within our catchment area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