

ANNUAL REPORT 2010

Private Bag 1
Namtete
Lilongwe
Malawi

International Telephone Number: + (265) 1 205 920/1 205 922
+ (265) 1 923 432
International Fax Number: + (265) 1 274 263
Email: kiromera@gmail.com
administrator@stgarbrielsmw.org

EXECUTIVE SUMMARY

There were several accomplishments for St Gabriel's Hospital in 2010 which included: Successful end implementation of the **2006-2010 strategic plan** with the construction of the tarmac road joining the hospital to the main road and the hospital security fence; The Official opening of the **Family Centered Care Unit (FCCU) facility** for intermediate and terminal care of those needing intensive family education or rehabilitation exercises before discharge or team-supported end-of-life care; Extension of **bed-nets distribution** to more than ten thousand families for prevention of malaria; The **opening of new and fully equipped theater and acquisition of new digitalized x-ray**; and equipping of **the ART clinic** with touch screen computers for **electronic medical records**.

St Gabriel's maintains a commitment to providing best quality and affordable care to anyone seeking care at the institution. Despite challenges related to staffing, hospital staff was able to provide care to Fifty five thousand one hundred and four (55104) people; assist in safe delivery to Two thousand nine hundred ninety seven (2997) mothers; initiate Four hundred and fifty nine (459) new patients on ART and maintain One thousand seven hundred and eighty four (1784) on treatment. Major surgical interventions were provided for 287 patients.

Malaria continues to account for the greatest number of admissions eight thousand three hundred and eighty nine (8389) and deaths one hundred and ninety seven (197) at the Hospital. Children paid the highest price in terms of morbidity and mortality caused by malaria, while bacterial meningitis carried the highest fatality rate. Where curative services are not attainable, the hospital recently opened the Family Centered care Unit to care for chronically and terminally ill patients and support and their families.

St Gabriel's Hospital was not spared of the country wide measles epidemic and registered four hundred twelve (412) of OPD measles cases and two hundred and ten (210) admissions.

Preventive Services were provided with community participation and included education, immunization, hygiene and sanitation strengthening, as well as early nutrition supplementation to underweight children.

Supportive Services included the pharmacy, which was able to secure essential drugs throughout the year. The laboratory supported diagnostic services, in addition to endoscopy of the upper and lower digestive system, and radio-imaging (i.e. x-ray and ultrasound. Emphasis on professional and staff development remained a primary focus of hospital management. Four eligible candidates were able to further their studies and training in healthcare resulting in a better trained staff on-site.

The hospital was able to facilitate and host more than seventy seven (77) students, volunteers and professionals interested in furthering the hospital mission and expanding their exposure to tropical medicine, public health, and palliative care issues in a rural setting. Ties with those who receive such training have a everlasting value in terms of future relationship for sustainability of service delivery at St Gabriel's Hospital.

ABBREVIATIONS

APGAR	Appearance, Pulse, Grimace, Activity, Respiration (Score for Babies at time of birth)
AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral Therapy
ARV	Antiretroviral
BS	Blood Smear (malaria)
CHAM	Christian Health Association of Malawi
DHO	District Health Office
EGD	Esophago-gastro-duodenoscopy
FBC	Full Blood Count
GoM	Government of Malawi
HBPC	Home-Based and Palliative Care
HBV	Hepatitis B Virus
HIV	Human Immunodeficiency Virus
HSA	Health Surveillance Assistant
HTC	HIV Testing and Counseling

TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
ABBREVIATIONS	ii
TABLE OF CONTENTS	iii - v
ACKNOWLEDGEMENTS	vi
BACKGROUND	vii
HOSPITAL ACTIVITIES	1
1. Clinical Medicine	
1.1 Outpatient Department	1
1.1.1 Outpatient Care	1-2
1.1.2 HIV Testing and Counseling Services	2
1.1.3 HIV Testing and Counseling for Inpatients and Outpatients	2- 3
1.1.4 Antiretroviral Therapy	3
1.1.5 ART in Pediatric	3-4
1.1.6 HIV Testing in Antenatal Clinics	4
1.2. Inpatient	4
1.2.1 Female Ward	5
1.2.2 Male Ward	5
1.2.3 Pediatric Ward	5
1.2.4 Private Wing	5
1.2.5 Maternity	5
1.2.6 Family Centered Care Unit (FCCU)	6
2. Surgery	6-7
2.1 Operations / theatre procedure	8
2.1.1 General Surgery	8
2.1.2 Urology	8
2.1.3 Trauma / Orthopedics	9
3. Home Based Care Services and Palliative Care Medicine	10
3.1. Inpatient unit	10
3.2 Home care	11 - 13
3.3 Provision of Transport	13
3.4 Challenges and opportunities	14
4. Nursing	15
4.1 Quality improvement	15

4.2 Neonatal care	16 -17
4.3 Measles	18
4.4 Staffing	18
4.4 In service training	18
5. Support Services	18
5.1 Laboratory	18- 20
5.2 Radiology	20
5.3 Endoscopy	20- 21
5.4 Pharmacy	21
6. Public Health	22
6.1 Immunization	22
6.2 Growth monitoring	22
6.3. Nutrition	23
6.4 Prevention of communicable diseases	23
7. Mortality and Fatality	23
7.1. Leading causes of fatality	23-24
7.2 Maternal deaths	24-25
8. Development projects	25
8.1 Strategic Implementation	25
8.2 Land Demarcation	26
8.3 Security fence	26
8.4 Tarmac Road	26
8.5 OPD expansion	26
8.6 Guardian Shelter	26
8.7 Community Empowerment	26
8.8 Family Centered Care Unit	26-27
8.9 Construction of Staff Houses	27
9. Previous funded projects	27
9.1 Incinerator	27
9.2 Water Tank Storage, Sewer, and Water Reticulation	27- 28
9.3 Storm Drainage	28
9.4 Construction of New Pediatric (Children's) Ward	28
9.5 Construction of Kitchen for Malnourished and TB patients	28
9.6 Mobile HIV and CD4 Count Testing	28-29
9.7 Prevention of Mother to Child HIV Transmission (PMTCT)	29
10. Administration and Human Resources	30
10.1 Staffing Establishment	30
10.2. Academic Staff Development	31
11. Finances and Accounting	32

11.1 Notes to the Accounts	32-34
11.2 Income and Expenditure as at 31 st December 2009	2 of 35
11.3 Balance Sheet	36
11.4. Cash flow Statement	37
11.5 Inventory	38
11.6 Donations	3 of 39
11.7 Deferred Income	40
11.8 St Zithe Foundation	41
11.8 TB Programme	42
11.9 Professor Redfield	43
11.10 Home Based Care	44
11.11 Stitching St Gabriel's Hospital Rotterdam	45
11.12 HIV/AIDS Program	46
11.12 Food Aid	47
12. Appendices Summary	
Outpatient Department (Appendix 1)	
Female Ward (Appendix 2)	
Male Ward (Appendix 3)	
Pediatric Ward (Appendix 4)	
Total Death (Appendix 5a – 5 f)	

ACKNOWLEDGEMENTS

We are most appreciative of **more than a half a century** of committed and unwavering support from the **Foundation Ste Zithe (Congregation of Carmelite Sisters of Luxembourg) and Open Hand Fir Malawi, Luxembourg.**

The hospital is indebted to the **Government of Malawi (GoM)** for paying staff salaries, in-service training, assistance with healthcare guidelines, provision of free HIV Tests, Antiretroviral (ARV), tuberculosis (TB) anti-malaria treatments and mosquito nets for pregnant mothers and under five children

As a hospital in the Diocese of Lilongwe, we are grateful for support and guidance offered particularly through the **Diocesan Catholic Health Commission and the Christian Health Association of Malawi (CHAM)** especially for its role in coordinating with the Government of Malawi.

Our partnership with **Lilongwe DHO** and **Mchinji DHO** has allowed extension of the *Service Level Agreements (SLAs)*. These agreements allow continued offering of free maternal and child health care within the immediate twenty-one (21) villages surrounding the hospital.

Families, friends, individuals and organizations too numerous to list all them here have contributed in many ways to improving St Gabriel's Hospital services to the rural community in Malawi; could every one find here the expression of our deep gratitude

Our sincerest thanks go to **St Gabriel's Hospital Staff**, without whom nothing could have been achieved. .

BACKGROUND

St Gabriel's hospital is a Catholic mission and a member of the Christian Health Association of Malawi (CHAM). It was established in 1959 by the Congregation of the Carmelite Sisters from Luxembourg. It is owned by Diocese of Lilongwe, advised by the Board of Governors and operated by the management team.

The mission statement of St. Gabriel's Hospital states:

“To provide excellent services to the poor rural community and all those in need, in a transparent and accountable manner.”

As a not-for-profit facility, and in accordance with ethical principles of the Catholic Church, St Gabriel's Hospital provides curative, preventive, supportive and palliative health care services in both hospital and the community for a population estimated to be approximately Two hundred and five thousand (205,000).

The Hospital has two hundred and sixty seven (267) bed capacity composed of general male and female wards, a surgical ward since August 2009, a labor ward, maternity ward, children's ward, Nutritional Rehabilitation Unit (NRU), a private wing and a Family Centered Care with inpatients palliative care Unit (FCCU).

The Outpatient Department (OPD) offers services from Monday through Saturday. Maternal and Child Health Services are provided through both static and outreach clinics. The hospital functions as a referral institution for six health centers operating in the catchment area.

Support from donors and partnership with local, national and international organizations has allowed St Gabriel's to expand its scope of work within the hospital and in the community; resulting in overall improved care for the central regions of Malawi.

HOSPITAL ACTIVITIES

1. CLINICAL MEDICINE (appendix 1)

1.1 OUTPATIENT DEPARTMENT

1.1.1 Outpatient Care

Cases managed in Outpatient Department (OPD) in 2010 numbered thirty seven thousand five hundred sixty eight (37,568), a figure comparable to last year. Activities and practices instituted by the hospital to lessen the burden on OPD capacity, as well as naturally occurring changes in incidence and attendance fluctuations were sustained. These activities mainly included dispensing antiretroviral drugs (ARVs) up to three months to patients who displayed one hundred percent (100%) ART Adherence for six (6) to twelve (12) months.

Malaria remained by far the primary cause of OPD consultations. The total number of malaria cases treated numbered ten thousand two hundred and ten cases (10,210). Continued efforts to reduce the burden of malaria are focused on ensuring availability of anti-malaria drugs throughout the year and on-going health education, both at community and hospital level. **In anticipation of scaling up prevention efforts at the community level the hospital was able to secure treated mosquito nets for all inpatients beds in 2009 and ten thousand two hundred and ninety six (10,296) treated mosquito nets were distributed to the community. Most of the beneficiaries were pregnant, lactating mothers and their families.**

HIV/AIDS was once again the second cause of OPD consultations with ten thousand and fifteen (10,015) visits. Most of the patients attended to at OPD were follow ups. A gradual decline of new HIV/AIDS patients is being observed over the last two years. Improved community awareness about HIV/AIDS, combined with demonstrated successful treatment for those on ART and prevention may have contributed to this trend.

Respiratory tract infections were reported as the third cause of OPD consultations and consumption of antibiotics, followed by musculoskeletal and Non-communicable diseases.

Outpatient Department (O.P.D)

Month	2008	2009	2010	% Difference from 2009
January	4121	3144	2807	-11
February	4072	3977	3197	-20
March	3823	3802	3657	- 4
April	3273	3678	3530	- 4
May	2782	3057	3640	+19
June	2807	3463	3675	+6
July	2544	3446	4373	+27
August	3272	2792	2688	- 4
September	3598	3069	2545	- 17
October	3430	2895	2668	-8
November	2938	2754	2389	-13
December	2475	2829	2399	-15
Total	39,135	38,906	37,568	-3

The average number of patients seen per month was about three thousand (3,000) ranging from two thousand five hundred and forty five to four thousand three hundred and seventy three (2545 – 4373). 2010 OPD attendance presented a very unusual pattern with highest attendance during the cold season (May – July) as opposed to previous years, where attendance was highest during the rainy season (January – April).

1.1.2 HIV Testing and Counseling (HTC) Services

The hospital has been working with the community to increase awareness and encourage people to know their HIV status. Selected members of the *Community Volunteers Network* and People Living with HIV/AIDS (PLWHA) were trained in *Antiretroviral Therapy (ART) Adherence* and assisted the hospital in sustaining high *ART Adherence* (96%). Community volunteers' involvement in adherence monitoring also helped the hospital to provide Antiretroviral (ARV) drugs for two or three months in selected patients who have demonstrated consistent one hundred percent (100%) adherence for six months to one year, respectively. This effort helped to reduce unnecessary travel burdens on PLWHA who are receiving ART and decreased congestion in the OPD ART, resulting in more time for other activities.

1.1.3 HIV Testing and Counseling (HTC) for Inpatients and Outpatients

Year	2008	2009	2010
Clients Counseled	7735	6750	5099
Clients Tested	7735	6750	5099
HIV Positive	787	617	470
HIV Negative	6948	6133	4629
Discordant	15	20	17
Prevalence	10%	9%	9%

HIV Testing and Counseling (HTC) is well integrated in clinical practice and the hospital continues to realize strong community support in terms of sensitization for HIV testing.

The Family Centered Care Unit offered comfortable space for education in HIV Prevention, Testing, and management of opportunistic infections as well as follow up of AIDS patients on antiretroviral therapy.

The Family Centered Care unit was the first unit to be equipped with electronic medical data records and should the experience be successful, expansion of the system to the whole hospital should be considered.

The prevalence of HIV infection in the tested population stands at 9% below the national average reported between 12 – 14%. While this figure is encouraging, there is no room for complaisance because the numbers remain alarmingly high and continue to be a public health concern. Sustained efforts in coordination with the community to strengthen education are pursued.

1.1.4 Antiretroviral Therapy (ART)

St Gabriel’s Hospital applies National Guidelines for Antiretroviral Therapy. Thanks to the efforts invested in the community over the past ten years on HIV, education, testing and treatment adherence; stigma has significantly been reduced and treatment outcomes are encouraging.

Antiretroviral Therapy Table

Status	2008	2009	2010
Ever started on ART	340	545	423
Alive	307	462	350
Dead	23(7%)	39 (7%)	27(6%)
Defaulted	0	-	19
Stopped	2	4	5
Transferred out	8	32	22

In adults, the number of new patients started on ART was slightly lower as compared to 2009 but the adherence rate remained high (96%) and the mortality stable at 6%.

1.1.5 ART in Pediatrics Table

Year	2008	2009	2010
Ever Started on ART	37	71	36
Alive	27	60	35
Died	6 (16%)	2(3%)	1(2.7%)
Stopped	1	0	0
Defaulted	2	2	0
Transferred out	1	7	0

The number of new children started on ART dropped by 50% as compared to 2009. Whether this reflect a reduction in the number of HIV infected children in need of ARVs or a reduced uptake due to other reasons needs to be confirmed in the future.

1.1.6 HIV Testing in Ante-natal Clinics

Year	2008	2009	2010
First Ante-natal Visit	3553	3062	2810
HIV Tests (primary, subsequent, and labor ward visits)	3743	2943	2708
Positive Results	105	66	45
Negative Results	3638	2877	2663
% Positive	2.8%	2,2%	1.6%

The HIV prevalence in expecting mothers tested at St. Gabriel’s Hospital (1.6%) has been gradually declining for the last four consecutive years .This is in sharp contrast with stable prevalence in adult population at 9% for the last two years.

1.2 INPATIENT DEPARTMENT

Inpatient Department Table

WARD	BED CAPACITY	ADMISSIONS			BED OCCUPANCY RATE		
		2008	2009	2010	2008	2009	2010
Male	35	1445	1719	1347	91	92	61
Female	35	2289	2678	2648	96	105	76
Pediatric	100	6949	8524	9238	190	68	82
Maternity	42	2772	2850	2850	62	56	58
Private	13	148	165	157	5	13	12
Surgical	24	-	304	867		59	63
FCCU	16	-		198			
TOTAL	265	13603	16240	17536			

Over the last three years the hospital bed capacity increased by around 60%. During the same period the number of patients admitted increased by 30%

The relative reduction in bed occupancy rate in Male and Female wards is a consequence of a shift of surgical patients from these wards to the new surgical ward.

General Wards

The number of admissions were eight percent (8%) higher in 2010 compared to 2009 mainly due to increase in pediatric, surgical and Family Centered Care Unit admissions.

1.2.1 Female Ward (appendix 2)

The leading causes of admissions in female ward were malaria followed by complications from abortions. Non communicable diseases were third followed by respiratory tract infections and anemia.

1.2.2 Male Ward (appendix3)

Malaria was the leading cause of admissions followed by non communicable disease, pneumonia, Tuberculosis and cardiovascular diseases.

1.2.3 Pediatric Ward (appendix 4)

Pediatric admissions accounted for 53% of the total hospitalizations mainly due to malaria. Anemia, pneumonia, gastroenteritis and malnutrition were among the other top five causes of admissions.

1.2.4 Private Wing

As the number of new, well equipped and well staffed private clinics are opening in Lilongwe, private patients coming from the Capital city remains limited to those seeking special services. The bed occupancy rate in private wing stagnated at 12% in 2010.

1.2.5 Maternity

There were two thousand nine hundred ninety seven (2997) deliveries with five hundred seventy five (575) by caesarian section (19%). The substantial increase in caesarian sections in 2010 was due to the increase of the number of health centers eight (8) instead of previously six (6) referring complicated cases to this hospital. The hospital continued providing free maternal and neonatal care to those residing in the twenty-one (21) immediate catchment area villages.

This was possible with the signing of the *Service Level Agreement* with Lilongwe and Mchinji District Health Office (DHOs). There were fifty-two (52) neonatal deaths in 2010 compared to sixty six (66) in 2009 (21.2% decrease). Most of the neonatal deaths had an unspecified cause; however, there was a decrease of neonatal deaths due to asphyxia. Most of the deaths (56%) occurred in four months (March, May, June, July,).

Allocation of hospital maids trained in Kangaroo Mother Care to the unit result in significant reduction in neonatal deaths in premature babies.

Maternity Table

Mode of Delivery	2008	2009	2010
Spontaneous Vertex Delivery	2088	2058	2206
Breech	66	56	101
Vacuum Extraction	81	104	115
Caesarean section	474	576	575
Total	2712	2794	2997

1.2.6 Family Centered Care Unit

Year one (1) of inpatient admission in Family Centered Care Unit confirmed that needs for palliative care services were indeed unmet. What has been very encouraging for the FCCU staff is the expression of gratitude from patients and families who have spent sometimes in the unit. Often families have travelled back from their homes just to thank the FCCU team for their loving care.

Admissions

Months	Diagnosis			Total
	Cancer	Cardiovascular disease	other	
January	13	1	2	16
February	7	4	1	12
March	7	6	3	16
April	5	3	3	11
May	8	4	2	14
June	5	8	2	15
July	14	3		17
August	9	5	7	21
September	9	14	5	28
October	4	3	1	8
November	8	4	8	20
December	9	8	3	20
			TOTAL	198

The number of admissions in the FCCU was higher in the second semester except in the month of October. Most of the patients were admitted for pain management due to cancer and supportive and symptomatic management for heart diseases and strokes.

2. SURGERY

During the year 2010 several goals which were delayed in 2009 were achieved. The old x-ray room was renovated to the current new theater which was put in use since 7-7-2010. The room is air-conditioned and big enough for orthopedic procedures. In this theater the new donated operating table including an orthopedic extension set was put in place together with lamps, electrosurgical equipment, anesthesia vaporizer, multi-purpose monitor and a standby lamp in case of electricity breakdown.

The new automatic autoclave for horizontal sterilization came with false adjustments and failed to do reliable sterilization until the end of the year and was repaired by the manufacturer in the second week of January 2011.

OPD treatment room, which used both for in and outpatients kept the staff busy. Compared to 2009, more cases for wound management / dressing were registered in 2010. The number of patients coming for trauma, especially for fracture treatment increased while those reporting too late with septic conditions such as abscesses, wounds and advanced tumors remained unchanged

Eight hundred seventy (870) patients were admitted. The main leading causes of admission were traumas, septic conditions, elective operations and abdominal surgical emergencies.

There were 16 deaths and 17 absconders. The causes of death were septic conditions including peritonitis, very old age together with major trauma and advanced cancer.

There were 287 major operations in general and abdominal surgery, urology, trauma and orthopedics.

Thirteen (13) adults were put on skeleton traction, 2 on skin traction because of fractures of the lower extremities, 22 children were treated for the same reason with skin traction, 2 with skeleton traction.

Training of the clinicians was an important topic; due to lack of staff only 2 intern clinical officers did 3-months rotation in surgery. The nursing attendants working in theater / sterilization and treatment rooms were very busy, their work can still be improved by better organization and supervision. There is a great need for a nurse with experience in theater to be in charge of the organization / supervision there.

Future projects include improving of orthopedic and trauma services by increasing the storage facilities in the theater and sterilization room for sterile equipment what will make it easy when required.

More space will be required for surgical cleaning and drying of surgical instruments. An instrument cleaning machine should be considered in order to avoid damage to instruments and implants that occur from soaking them too long in disinfectant solutions.

The old theater should be equipped with a better operating table, theater ceiling lights; emergency battery operated standby lamp, anesthesia machine and suction apparatus.

Picture of the new surgery room



2.1 Operations / Theatre Procedures

2.1.1 General Surgery

Inguinal / Femoral Hernia Repair	45
Reconstr. Abdominal wall / incis. Hernia	20
Adhesiolysis	4
Gastrectomy subtotals	2
Gastrojejunostomy	3
Colostomy	3
Ileum /jejunum / ileocolic resection	6
Sigma resection / volvulus	4

Lower arm	5
Distal radius	4
Hand / fingers	2
Distal femur	2
Ext. fixator tibia	4
Neuroma excis.	2
Split skin graft	12
Burn contr. release	2
Achilles tendon repair / lengthening	2
Correction syndactylia fingers	3
Bone debridement osteomyelitis	6
Amput. thigh / lower leg	4
arm	1

3. HOME-BASED AND PALLIATIVE CARE SERVICES

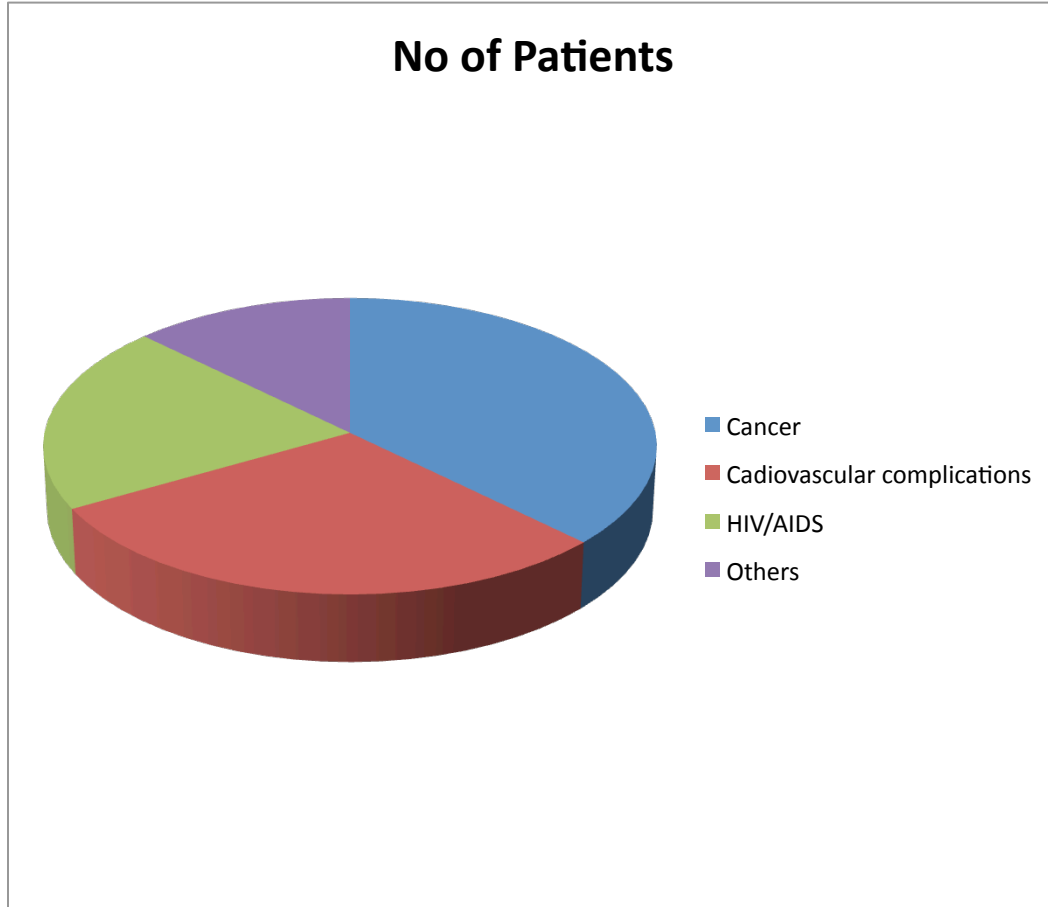
The program has made significant progress in providing care and support to the chronically and terminally ill patients and their families both at the hospital and community level. The program core activities for 2010 included;

- Training in Palliative Care for both volunteers and health staff
- Providing Palliative care services to all the needy
- Monitoring and evaluation of the program
- Management of Home Based Care kits

3.1 Inpatient Unit

One hundred ninety six (198) patients were admitted in the Hospice. Ninety six (96) Cancer, sixty six (66) cardiovascular complications, eleven (11) HIV/AIDS and twenty three (23) others.

Figure 1. Diseases in Palliative care patients in in-patient unit



Patients were nursed at different levels of care using the Palliative Performance Scale (PPS). Apart from pain, nausea and vomiting, constipation, edema, ascitis, skin breakdown, bleeding, coughing and shortness of breath, extreme fatigue and loss of autonomy were some of the other symptoms managed in the hospice. Prior to discharge family meetings were organized and whenever possible the community volunteers from the patient's community (villages) were invited to participate in the discussions on discharge plans in order to coordinate care at home. Bereavement meetings were conducted following the death of the patients who were cared for at the hospice.

Recreation activities at the Hospice

In order to keep patients and their family active, several games have been provided at the Hospice and the nurse assistants often participate in those activities.

Figure 2: Nurse Assistant's playing cards with the patient.



3.2 Home Care

Number of patients registered

Three hundred seventy (370) patients were registered. One hundred thirty eight (138) Cancers, one hundred and nine (109) cardiovascular complications, seventy six (76) HIV/AIDS and forty seven (47) with other conditions.

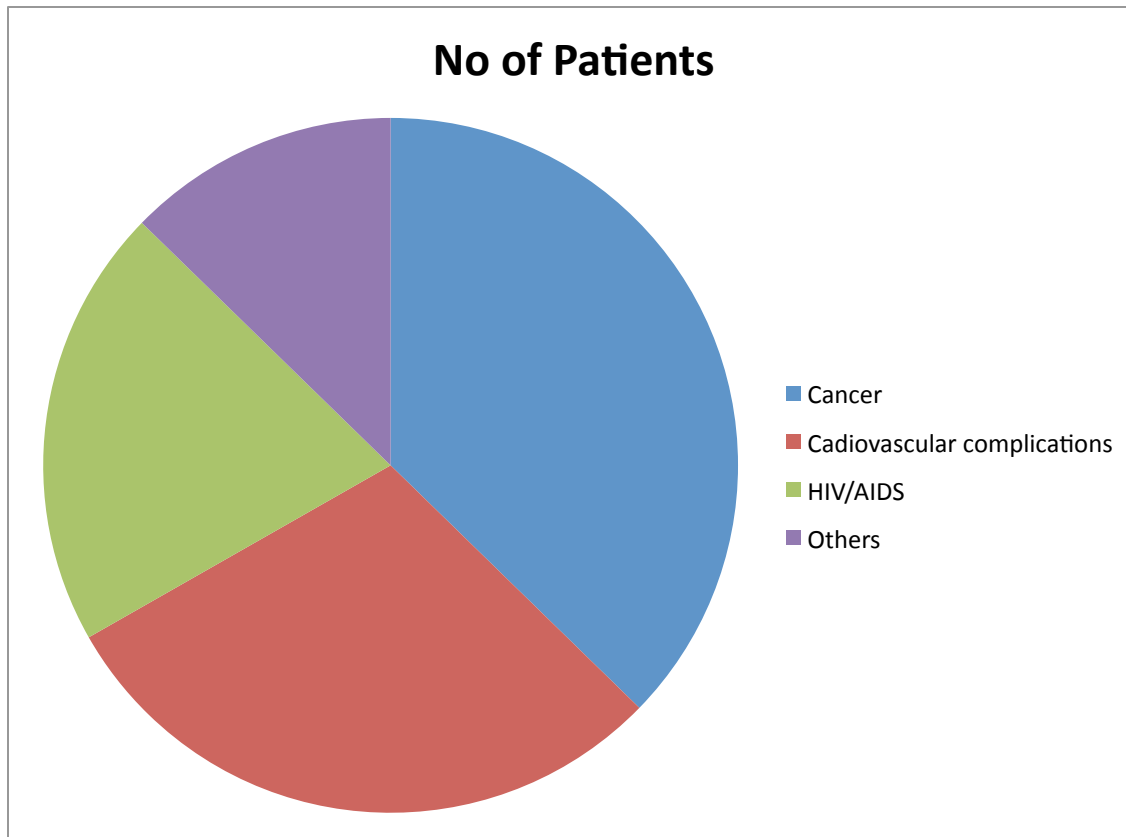


Table 1. Summaries number of new patients who registered from 2007 - 2010

CONDITION	2007	2008	2009	2010
HIV/AIDS	106 (53%)	140 (32%)	124 (32%)	76 (21%)
Cancer	31 (15%)	123 (28%)	149 (38%)	138 (37%)
CVS	43 (22%)	128 (29%)	92 (23%)	109 (29%)
Others	18 (9%)	45 (10%)	27 (7%)	47 (13%)
TOTAL	198	436	397	370
Registered on morphine	26 (13%)	67 (15%)	89 (23%)	87 (24%)
Died	76 (38%)	132 (30%)	77 (20%)	40 (11%)

Seven hundred and five patients (705) were cared for within their homes. Most of the patients were visited twice a month by the Palliative Care Nurses but those with conditions that required more attention were visited as many times as required. In addition, the nurses' visits were supplemented by the volunteers who were able to conduct daily / alternate visits or weekly visits.

Figure 3 A picture of one of the patients on Home Based Care with her guardians



3.3 Provision of transport

The acquisition of the ambulance motor bikes was a milestone for the support of the patients and their families. In the past, patients have been rushed home before they were stabilized to take advantage of any means of transportation, if the patient lived far away from the hospital in particular. Today, the patients and their families has less concern on the transportation and can take the care offered as long as it requires if they have enough food supply. Transportation is not offered to every patient and the hospice team had to establish eligibility criteria for free transportation to or from home. These criteria are communicated to the community.

Figure 4: Driver transporting a patient to the Hospice



3.4 Challenges and Opportunities

- Exposure of the hospital nurses and clinicians to Palliative Care has improved the early identification, referral and quality of care.
- Use of SMS frontline text messages from the hospital to the community volunteers keeps good communication and coordination between the Hospice, and community.
- Usage of motorbike ambulances in transferring patients have lifted the agony and discomfort which patient were experiencing when being transported by an ox – cart or push bike.
- Family and bereavement meetings proved to be essential in team work because patients, guardians and palliative team share very critical information that are vital to improving care to both the patients and the families.
- Visitors from different institutions have often given constructive observations that have helped the team improve the management of the Hospice unit, the care of patients, families as well as the carers.

Challenges

- The scarcity of well trained clinicians in Palliative Care hampered our ability to hire full time clinician.
- The biggest challenge for the program is that Diana Memorial Funding will end in August 2012 and will not be extended because the foundation is phasing out.

4. NURSING

Nursing care was not limited to inpatient clients but also extended to outpatient, Home Based Palliative Care, HIV/AIDS Outpatient Care, Prenatal and Postnatal Care. Despite the critical shortage of manpower in the nursing department, the nurses managed to provide standard nursing care to all inpatient and outpatient.

4.1 Quality Improvement

In 2010 the nursing department focused on maternal and neonatal health improvement. This area was selected based on experience the hospital has had in the past years. On average eight (8) deaths occur every year among women due to child birth complications and the hospital registers about sixty (60) neonatal deaths.

The quality improvement team worked tirelessly in auditing each maternal death to ascertain causes and find future solution through use of Plan Do Action (PDA) cycles. Although there was no remarkable reduction in the numbers of maternal deaths, management of critical and emergency cases improved in the maternity wing. This was noted in the care rendered to both the near missed and the actual maternal death.

In total, the hospital had eleven (11) maternal deaths; six (6) were due to direct maternal conditions and five (5) indirect. Three quarters of the indirect maternal deaths occurred in female ward and were secondary to complicated abortions.

Figure 5: Part of Quality Improvement team conducting neonatal resuscitation drills



4.2 Neonatal Care

The three leading cause of neonatal deaths are asphyxia, sepsis and prematurity. In 2010 the Quality Improvement Team focused its efforts on improving neonatal resuscitation and kangaroo mother care. Weekly resuscitation drills were organized and are still ongoing. Impact evaluation of those drills will be done next year.

Two hospital maids were sent to Queens Elizabeth Central Hospital for two week training in Kangaroo Mother Care. Since April 2010, the maids have been deployed in the Kangaroo Mother Care Unit.

Overall, quality of care for the premature babies, data collection and teaching of the mothers has greatly improved. For the first time the unit has documented a number of mothers coming back for follow up after discharge.

Figure 6: Kangaroo Mother Care Outcome

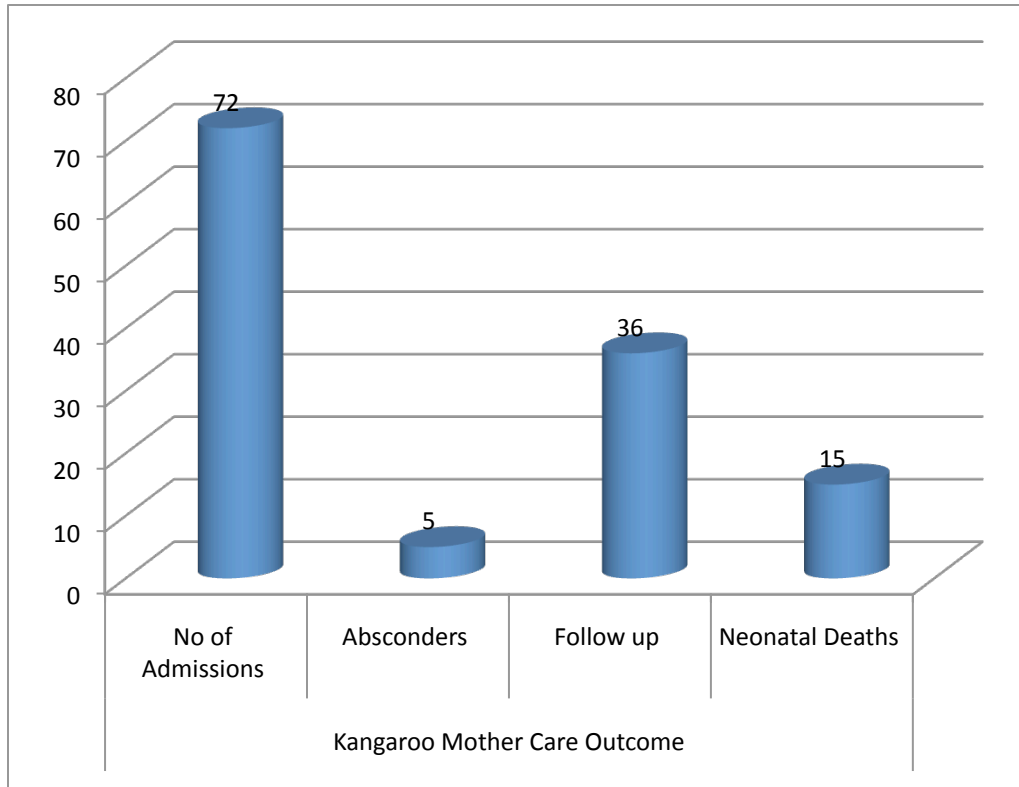


Figure 7: A nursing mother in a Kangaroo Unit



4.3 Measles

The outbreak of measles covering the period from April to October 2010 caused a lot of havoc among nurses as they were taken unprepared. The most affected population was children under the age of five. There was no appropriate isolation for inpatient especially in pediatric ward where children were admitted during the outbreak period. A briefing session on measles helped the nurses to quickly identify suspected measles cases in the ward and initiate treatment.

4.4 Staffing

During 2010 nursing department maintained a steady number of nurses, the lowest being 24 and the highest 27. The stability of nursing personnel team helped to maintain some of the good practices.

In total 5 nurses left the institution and 7 joined. On average the department operated with 26 nurses. This was much better as compared with 2010 where the hospital had 16 nurses on average.

4.5 In-service Training

Continuing Professional Development (CPD)

While many institutions are failing to initiate CPD, St Gabriel's was among the few hospitals that are running the program quite smoothly. Apart from being a recommendation from Nurses Council, nurses have welcomed the idea as it helps to update their knowledge and improve skills.

5. SUPPORTIVE SERVICES

5.1. Laboratory

The three most requested lab procedures for clinical investigations were Full Blood Count (FBC), blood smear (BS) for malaria parasites, and biochemistry tests. Full Blood Count (FBC) and blood smear for malaria (BS) requests resulted from the most frequent causes of OPD consultation and admissions; which are malaria and anemia. Biochemistry tests were needed to investigate liver, kidney and pancreas diseases, among other metabolic and physiological conditions.

Laboratory Procedure Table

Type of Test	2008	2009	2010
Hematology	15683	12740	9383
• FBC		12165	9069
• CD4 Count		583	250
Biochemistry	5962	2433	3270
• Liver		1518	1525
• Renal		530	1245
• Pancreas		385	459
Parasitology	9320	10047	9466
• Malaria parasites		10034	9459
• Schistosoma Ovas		13	7
Microbiology	1093	2590	2628
• AAFB		1399	873
• Gram stains		567	768
• Stool		199	134
• India Ink		425	185
Serology	1250	1223	2255
• HIV		220	720
• Syphilis		468	418
• HBsAg		327	475
• Cryptococcal Ag		208	60
Pregnancy Tests	571	656	582
Urinalysis	1501	1099	776

The workload in the laboratory procedures remained high for only three laboratory technicians in the rainy season in particular when there is a lot of anemia's that requires blood donor screening. There was a dramatic increase in biochemistry analysis for the kidneys function. Microscopy for TB exams declined significantly because the National TB Control program has equipped three surrounding health centers to perform TB microscopy.

Picture of the State President of Malawi, Dr. Bingu Wamutharika looking at the new fluorescent microscope



The donation of a new Fluorescent microscope by Foundation Ste Zithe through his excellence the President of Malawi should reduce the time needed for microscopy processing in 2011.

Status of Laboratory Instruments & Reagents Supply

Type of Instrument	Non-Operational Breakdown /	Reagents Out of Stock
Full Blood Count (FBC) - Coulter <i>Humacount</i>	Non -operational <i>2 months breakdown</i>	One month
Biochemistry - Vitro DT 60 <i>Humalyser 3000</i>	Repaired but not in use <i>No breakdown</i>	<i>Regular supply</i>
BD Facs Count	No breakdown	February to June
<i>Cryptococcal Antigen Test</i>	N/A	Regular supply
Viral Load Test (VLT) – Tecan	Non operational	N/A

The laboratory experienced problems with the Humacount breakdown for two months and since it was repaired it has been running smoothly. The DTE Chemistry instrument was repaired but has not yet been in use due to reagents supply problem.

5.2 Radiology

The new digitalized x-ray was installed in a radiation-protected room in OPD. The main advantages of the new equipment are the high quality of images on the monitor and the absence of environment-polluting chemicals.

The Laser Printer gives out documents whose quality needs to be improved by change of the image compressing software. Future is to equip all wards and OPD working places with monitors connected to the x-ray server.

Pictures of the new X- Ray Equipment



In the first 6 months of 2010, one thousand three hundred and sixteen (1,316) x-ray-pictures were taken by conventional x – ray from one thousand two hundred and thirty three (1,233) patients. In

the last six months (6) months of 2010, two thousand four hundred ninety one (2,491) digital exposures in two thousand three hundred and thirty four (2,334) patients were performed.

5.3 Endoscopy

Endoscopy explorations were reduced to one session a week due to limited staffing. In 2010, three hundred thirty two (332) procedures were performed. There were a 27% fewer procedures performed. Daeyang Luke Hospital is now offering endoscopies with start of the art video endoscope and Kamuzu Central Hospital has resumed offering free endoscopy services. St Gabriel’s Hospital finds itself in a very weak competitive position since these hospitals are better equipped and located either in town or within its vicinity.

Esopha-gastro-duodenoscopy (EGD)

Procedure Outcome	2008	2009	2010
Normal	272	246	170
Peptic Ulcer Disease	97	88	55
Esophageal Cancer	49	44	30
Other Cancer	42	11	13
Others	107	68	64
Non-Conclusive	8		
TOTAL	575	457	332

Colonoscopy

Year	2008	2009	2010
Number of Procedures	27	24	18

The most common diagnosis included; peptic ulcer diseases, esophageal varices, candidiasis, idiopathic HIV associated esophageal ulcers and gastric kaposi sarcomas.

The proportion of peptic ulcers and cancers remained similar to the previous year. Patient with advanced cancers were referred to Home-Based and Palliative Care for symptom management

5.4 Pharmacy

The head of nursing department and her deputy managed the pharmacy. The pharmacy work comprises (but is not limited to) drugs and supplies forecasting, procurement, stock updating and dispensing to both inpatients and outpatient.

The expansion of the hospital with the newly Family Centered Care Unit that encompasses pharmacy managers who were already strained. This is not likely to improve unless the hospital finds either a pharmacist or a pharmacy technician since the cumulative number of patients attended at the ART clinic increases over time.

Most of the drugs and supplies were provided by the NGO (Open Hand Fir Malawi) that has been supporting the hospital over the last twenty (20) years.

6. Public Health

Primary Health Care (PHC) Services consisted of, immunization, nutrition, environment health and prevention of communicable diseases.

6.1 Immunization

Vaccines	Coverage 2008	Coverage 2009	Coverage 2010
BCG	216%	1091 (153%)	1807
Pentavalent	161%	595 (83%)	567
Polio	149%	663 (93%)	618
Measles	142%	751 (105%)	538
Vitamin A	788%	3983 (557%)	3907

In 2010 the number of children immunized was similar to the previous years Discussion on the St Gabriel's immediate catchment population has not been finalized reason why it is has been difficult to estimate the immunization coverage rate.

6.2 Growth Monitoring

Growth Monitoring	2008	2009	2010
Number of weighed under 5	10569	8388	6418
Under 5 with normal weight	6858	3120	6029
Severe malnutrition admitted	261	262	234
Cured	185 (71%)	194 (74%)	201(85%)
Death	35 (13%)	34 (11%)	23(10%)
Absconders	14 (5%)	10 (4%)	10(4)
Still under treatment	27 (10%)	24 (9%)	0

The total number of severe malnutrition was slightly lower in 2010 with a better cure rate but absconders remained high.

There has been a decrease in the number of children weighed since 2007 due to new demarcation of St Gabriel's immediate catchment area. As a result, St Gabriel's is operating only two under five outreach clinics as opposed to ten (10) in 2006 but continues with Antenatal care services in all but one where services were temporary suspended due to low attendance.

6.3 Nutrition and Rehabilitation Unit (NRU)

Nutrition and rehabilitation has three components namely; Nutrition and rehabilitation unit for severe malnourished children, Outpatient Therapeutic Program (OTP) for malnourished children with good appetite and Supplementary Feeding Program (SFP) provided for children discharged from OTP/NRU, moderately malnourished children, pregnant and lactating women up to six months after delivery who have a middle upper arm circumference below 22cm.

With the introduction of ready for use therapeutic food (RUTF) locally known as chiponde the number of severely malnourished children who died or absconded has declined. Those who died mostly came from outside our catchment area. It was observed that absconders mostly happen during the rainy season when people are busy in the gardens.

6.4 Prevention of Communicable Diseases

Prevention of communicable diseases is done through community information, education and communication at OPD, outreach clinics, static clinics and in the villages. In 2010 there was an outbreak of measles country wide and St Gabriel's hospital registered four hundred and twelve(412) OPD measles cases and two hundred and ten(210) admissions with two(2) deaths A new measles vaccination champagne was implemented and the outbreak was contained

The measles epidemic reminded the institution that more effort are needed to have a isolation structure ready in case of new epidemics.

7. MORTALITY AND FATALITY

7.1 Leading Causes of Fatality

Disease	Total number of cases			No. Died			Fatality rate (%)		
	2008	2009	2010	2008	2009	2010	2008	2009	2010
HIV/AIDS	196	142	63	59	22	12	30	15%	19%
Sepsis	50			11			22		
Meningitis	140	96	105	29	25	21	21	26%	20%
Malnutrition	229	272	212	38	37	31	17	14%	15%
TB	362	368	308	24	15	12	9	4%	4%
Heart Disease	220	297	373	15	28	19	7	9%	5%
Pneumonia	905	1135	1808	52	73	79	6	5%	4%
Anemia	2021	2287	2561	63	78	98	3	3%	4%
Diarrhea	321	474	462	-		17	-		4%
Non Communicable	1665	897	2485	54	48	83	3	5%	3%
Malaria	6128	7147	8389	111	123	197	2	1.7%	2%
Surgical	442	500	752	-	22	17	-	3%	2%

Bacterial meningitis reemerged as the number one cause with highest fatality (20%) while HIV/AIDS related conditions comes second with (19%) followed by malnutrition (15%), heart diseases (5%) and TB, pneumonia, anemia and diarrhea (4%)

7.2 Maternal Deaths

Case	Patient stay in hospital	Diagnosis	Management	Comments
Case 1: 20yrs - parity 1	16 hours	Post partum Hemorrhage (PPH) due to Placenta accrete	IV fluids Evacuation Blood transfusion Total abdominal hysterectomy (TAH) in progress pt died	Home delivery complicated with retained placenta. Admission to the hospital two days later.
Case 2: 27yrs -parity 2	2 hours	Post partum Hemorrhage (PPH) due to retained placenta	IV fluid Manual removal of placenta Oxygen therapy Blood transfusion	Home delivery. Arrived in very critical condition.
Case 3: 21 yrs parity 2	25 minutes	Severe post- abortal sepsis	IV fluids	Delayed reporting to hospital. Arrived gasping.
Case 4: 39yrs Gravida 6 parity 4	3hours 40 minutes	Very severe pneumonia in immune-	Oxygen therapy IV antibiotics IV fluids	Delayed referral from health centre.

		compromised patient	Salbutamol nebulizer	
Case 5: ?yrs Parity 4	1 hr	Hypovolemic shock due to severe hemorrhage secondary to incomplete abortion.	Evacuation IV fluids Oxygen therapy	Resuscitation was ineffective.
Case 6: 29 yrs Parity 5	30 mins	Post partum hemorrhage secondary to RU /DIC	Blood transfusion Oxygen therapy	Ineffective resuscitation in a patient in severe shock.
Case 7: 24yrs Parity 2	7 days	Ruptured uterus, ruptured bladder, and septicemia.	TAH Bladder repair, IV antibiotics , Blood transfusion, IV fluids	Very bad case due to extremely delayed referral from TBA to .
Case	Patient stay in hospital	Diagnosis	Management	Comments
				Community hospital, district hospital and then to St Gabriel's.
Case 8: 20yrs Primgravida	5 hours	Post partum hemorrhage.	Blood transfusion Oxygen therapy Antibiotics Evacuation following delivery of SB at home.	Delayed referral and ineffective resuscitation.
Case 9: 35yrs Parity 3	2 weeks	Severe anemia in pregnancy in immune compromised patient, sepsis.	Antibiotics Blood transfusion Oxygen therapy	Refractory anemia due to ineffective bone marrow
Case 10: 36yrs parity 5	4 hours	Shock secondary to PPH due to retained placenta.	Evacuation Blood transfusion IV fluids Oxygen therapy	Delayed at community level. Placenta cord not tied. Resuscitation was ineffective.
Case 11	Brought dead		Confirmed death	Arrived dead.

Two main factors contributed to most of the maternal deaths. The first one was delayed referrals from the TBA and transportation problems from the health centers to the hospital. The second m was the ineffective resuscitation of severe shock cases. There is an opportunity for improving the referral network but at present the transportation seems to be the major bottleneck to improve the system.

8. DEVELOPMENT PROJECTS

8.1 Strategic Plan Implementation

The hospital's development has been guided by a *Five Year Strategic Plan* to initiate in 2006 to end this year (2010). The two last activities that were remaining were the tarmac road that has been generously donated by his Excellence the President of the Republic of Malawi and the security fence around the hospital granted by Foundation St Zithe.

As much as the five years strategic plan was a big challenge, the hospital management can be proud to have achieved its objectives

8.2 Land demarcation:

The hospital was recently granted land by Lilongwe Diocese to respond to the hospital future development. The process of demarcation of the hospital land with a new master plan under was done and included the land of the Carmelite sisters.

8.3 Security Fence:

The security fence funding by Foundation Ste Foundation Zithe was realized by the end of 2010 and its completion is expected in the first quarter 2011

8.4 Tarmac Road from Namitete Trading Centre to St Gabriel's Hospital:

The construction of the tarmac road started in the last second quarter of 2010 and is still on going

8.5 Emergency Department / OPD Expansion:

The construction of an upgraded OPD with an emergency department is at present the biggest infrastructure development underway. It is co-funded by Foundation Ste Zithe, the NGO (Open Hand Fir Malawi) and the Government of Luxembourg

8.6 Guardian Shelter

The Guardian shelter upgrade project aims at increasing sleeping space for guardians and antenatal mothers, reducing smoke inside the cooking area, improving hygiene and sanitation. The project is co - funded by Cordaid from Netherlands, Foundation St Zithe and Dr. Jacob Van Wijk. The project started in the last quarter in 2010 and is expected to finish in 2011.

8.7 Community Empowerment

St Gabriel's Hospital strived to strengthen community empowerment in supporting and following up projects funded in 2009 for community support groups. Out of different projects, Namitete Support Group has successfully multiplied the pigs donated and re- distributed some to eight (8) families. Some of the pigs were sold to buy goats that were distributed to Muslim members of the support group.

In Msundwe, Mafuta and Mapuyu pigs have also been distributed to other fellow support group members. In Chawantha where they are rearing goats, they are waiting for the number to grow before sharing with other members.

8.8 Family Centered Care Unit

The inpatient admission started in January 2010. At the beginning of the year, the unit was blessed by the visiting of Dr. Carla Alexander, Assistant Professor In – Charge of Palliative Care at University of Maryland with her nurse to help put in place the functional structure of the unit. Soon after, Dr. Eileen Nicole from University of Toronto contributed immensely to the definition of eligibility criteria for patients to be admitted in FCCU and flow of admission and put lot of effort and dedication in teaching

In October 2010 the unit was officially opened by Honorable Minister of Health accompanied by the Principal Secretary of HIV/AIDS and Nutrition. The ceremony was uplifted by the presence of the Mother General of the Congregation of Carmelite Sisters and several local and international partners. The ceremony brought with it significant publicity for the unit and since the unit has been welcoming patients coming as far as Northern (Karonga) and Southern (Thyolo).

The unit has attracted visitors from Tanzania and several nursing schools tutors from CHAM and representative from Palliative Care Association of Malawi (PACAM).

8.9 Construction of Staff Houses

The Foundation Ste Zithe of Luxembourg has been assisting with improvements of staff housing. In 2010 two semi detached houses funded in 2009 were completed.

8.10 New X- ray and new Theatre

The digital x – ray was donated by a generous donor from Luxembourg, a Dutch Foundation and Foundation Ste Zithe. The new theatre was realized with funds from Australia and Luxembourg.

9. PREVIOUSLY FUNDED PROJECTS

9.1 Incinerator

The incinerator donated by Foundation Ste. Zithe was commissioned in November 2007 and the system has been operating well since installation. The installation was in response to the hospital need for safely processing hospital biohazardous wastes while protecting the environment. Its acquisition and operation have since been paired with significant improvement in hospital infection control.

The hospital has contacted potential users that are sensitive to the issue of environmental protection and biohazard waste management to share in the use of the systems great capacity. To date, two institutions including ABC Clinic and the US Embassy are utilizing the facility. Cooperative users are requested to pay a fee to cover part of the operational overhead of the incinerator (e.g. diesel costs, etc.). Increased usage of the incinerator may be limited by the fact that institutions have not made budget allocations for enhanced waste processing services. St Gabriel's hospital has set a good example in the area of hospital waste management and environment protection. Kamuzu Central Hospital management team was inspired by St Gabriel's incinerator plant facility and has since installed their incineration unit.

9.2 Water Tank Storage, Sewer, and Water Reticulation

With the gradual expansion of the hospital, the water reservoir built several years ago was no longer able to meet the needs of the new buildings and infrastructure. Upgrades were instituted and also extended to the sewage and the water reticulation systems that were no longer suitable for the growing institutional needs. Open Hand Fir Malawi, based in Luxembourg, donated the funds required to increase the water tank capacity to sixty thousand liters (60,000 L) and upgrade the water reticulation and sewage systems. The new structures securely provide enough water for general usage and no problems of sewage blockage have been reported since the upgrades were carried out.

9.3 Storm Drainage

The Storm Drain Upgrade Project was a response to the problem of recurrent flooding of the pediatric ward during the rainy seasons. The upgrades corrected the deficiencies and no flooding has occurred since the upgrades were instituted.

9.4 Construction of New Pediatric (Children's) Ward

The previous pediatric ward built in 1975 had a capacity of twenty-seven (27) beds. During the rainy season, at the peak of malaria outbreak in the region, pediatric ward was forced to house around 200 children under stressful conditions.

Thanks to the combined generosity of the Raymond Ruddy Family through the Gerald Health Foundation, the European Union (EU) Delegation in Malawi, and the Foundation Ste. Zithe based in Luxembourg a new facility was constructed. The new facility offers improved lighting and ventilation, significantly improved space for one hundred children's beds at any given time, isolation bays to separate infectious cases from others cases, partitioned rooms for procedures, treatment, pharmacy and a welcoming admissions counter and waiting area that has stemmed crowded conditions apparent in the former ward. The new unit is a well-planned and welcoming structure that is celebrated by patients and staff alike.

9.5 Construction of Kitchen for Malnourished and TB patients

The construction of a decent cooking facility to prepare food for malnourished, Family Centred Care Unit (FCCU) and TB patients was very much needed. The previous cooking area was inadequate and very poorly ventilated. The new kitchen was constructed with a grant provided by the Foundation Ste. Zithe of Luxembourg. The facility is equipped with all the required utility of a modern community kitchen. .

9.6 Mobile HIV and CD4 Count Testing

The major problem encountered in the implementation of HIV/AIDS activities has been the inability to reach all of the extended family members of the infected individuals to provide them with comprehensive HIV/AIDS services. The primary factor reported to contribute to the inadequate access to services aimed at stemming the HIV pandemic is the problem of distance and / or lack of money for transportation to treatment and service locations.

To respond to this challenge the hospital embarked on a pilot project on mobile CD4 Count Testing in partnership with Pointcare after winning a World Bank Award. The hospital was to provide the technical part of the project and Pointcare was responsible for the Finance Administration of the World Bank grant.

Due to internal problem of Point Care, the project s so much appreciated by the communities was abruptly interrupted. The hospital has not yet secured another donor to support the continuation of the project that was consider to be one of its kind in Africa

9.7 Prevention of Mother to Child Transmission (PMTCT) of HIV Program

The Prevention of Mother To Child Transmission (PMTCT) Program was instituted in 2002 with a grant from Glaxo Smith Kline (GSK) through the *Children AIDS Fund USA*. The program also greatly benefited from the technical, as well as financial support from The Institute of Human Virology (IHV) in Baltimore, Maryland, USA. The program helped to establish and build Village AIDS Committees (VACS), as well as educate and mobilize volunteers to assist in the community support efforts.

The PMTCT Program is now integrated into routine hospital activities with one hundred percent (100%) of pregnant mothers accepting HIV testing in Ante-natal Clinics (ANC) or in labor wards.

GSK also generously provided a grant to build a guest house for GSK staff and other visitors who visit the hospital on a regular basis to follow up the progress of the HIV /AIDS programs.

10. ADMINISTRATION AND HUMAN RESOURCES

10.1 Staffing in 2010

Staff recruitment and filling of vacant posts remained the biggest challenge. The exercise was hampered by scarcity of qualified health worker professionals at national and lack of accommodation at the institution level.

Below is a table of summary of this year 2010

Cadre	No of employees Jan – DEC 2010	No left Jan – DEC 2010	Total in DECE '10	Establishment
		-		
Hospital Director	1		1	
		-		
Medical Officers	3	-	3	2
Surgeon	2	-	2	-
Anesthetic Clinical Therapist	2	-	2	
Clinical Officers	7	5	8	5
Medical Assistants	4	-	4	4
P. Nursing Officer	1	-	1	1
Nursing Officer	1	-	1	4
Senior Nursing Tech	9	-	-	10
Nursing Tech	15	3	12	15
Radiographers	-	-	-	
Environmental HO	1	Died	1	1
Lab Technician	3	-	3	3
Administrator	1	1	1	1
Senior Administrative officer	1	-	1	1
Accountant	1	-	1	1
Senior Ass. Accountant	1	1	1	1
Ass. Accountant	1	-	1	1
Senior Accounts Ass	1	-	1	1
Accounts Assistant	1	-	1	1
Other Support Staff	120	11	117	
Totals	176	21	162	

Overall there was an improvement in staff retention especially in Administration and Nursing departments. Most of the workers who left were from the support services like Hospital Maids and Ground labourers. The turnover rate was 12% slightly lower than last year which was at 16%.

10.2 Academic Staff development

i. Masters in Surgery

The Principal Medical Officer successfully completed his training in Surgery at the University of Malawi (College of Medicine) and he graduated in August 2010. He is now working in the hospital as a full time Surgeon. The training was sponsored by Open Hand Fir Malawi of Luxembourg.

ii. Diploma in Nursing and Midwifery

One hospital attendant has completed his first year of a three year course in nursing at St Joseph College of Nursing.

iii. Diploma in Midwifery

One nurse technician was enrolled for a certificate in Midwifery and is expected to complete his training in April 2011.

iv. Initiators course in Home Based Palliative Care

One Medical Doctor and a Home Based Palliative Care Nurse successfully completed a five week initiators course in Palliative Care at Hospice Uganda.