Ndala Hospital

Annual Report 2013

Archdiocese of Tabora, Tanzania

Ndala Hospital

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Table of contents

General overview of 2013

Jubilee:

This year the Hospital cerebrated its Golden Jubilee of fifty years since started providing services in the year 1963, the event took place on 26th January 2013. There were several activities done to make it fruitful, two weeks before there were different open games competition including football for Primary school children as well as for youth, bicycle race, traditional dances, etc. Further more, the hospital offered free medical services to all children under fives for two weeks. To make the year more remarkable renovations of some old hospital buildings were done. The main hospital entrance gate reconstructed in a new appearance with decoration paint of golden colour.

Staff:

The number of management team remained the same, Sr. Georgetha Paul (CB) took over the responsibility of the Hospital Administrator to replace Sr. Reni who has finished her period of stay in Ndala. Sr. Ester Muharami (CB) left in between the year for other activities in other place within CB convent.

Board of Governors met twice for its regular meeting and the third meeting was special for review of new employment contract for Tanzanian workers.

Some qualified staff left the hospital and get employed in government sector with the expectations of getting higher allowances and terminal benefits.

Patients:

In general the number of admissions relatively increased compared to last year but new outpatient attendances decreased.

The number of caesarean sections slightly increased. There were 6 maternal deaths. Two of them caused by eclampsia, one uterine rupture at home, one PPH and two sudden deaths from unknown causes.

There is slight an increase of minor surgical procedures in the theatre due to increase of motor vehicle accidents.

The number of Hypertension, Anaemia and Moderate Malnutrition in children under five years of age is not clear due to poor documentation at the RCH services. Total vaccinations increased compared to last year.

The number of HIV tests has increased about six times more than last year due to public awareness of HIV/AIDS and active PITC and VCT services in the hospital.

Top-Ten of In-patients (ADULTS):

1. Malaria
2. Anaemia
3. HIV/Aids
4. Diarrhoea
5. Pneumonia
6. Urinary Tract Infections (UTI)
7. (Minor) complications of pregnancy (abortion)
8. Hypertension
9. Diabetes mellitus
10. Fractures/wounds

Top-Ten of Out-Patients (ADULTS):

1. Malaria
2. Peptic Ulcer
3. Urinary Tract Infections (UTI)
4. Diarrhoea
5. Pelvic Inflammatory Diseases (PID)
6. Hypertension
7. Acute Respiratory Infections (ARI)
8. Diabetes Mellitus
9. HIV/Aids
10. Intestinal worms.

Building/Installation

The hospital was connected to the national electricity grid, solar system still useful in case of national grid goes off temporarily, new theatre is on finishing expected to be used in the first half of 2014.

Finance

This year the financial situation remained steady, but the hospital faces a great challenge on getting supplies for essential medicines and other consumables for medical material/items of which the price was raised from time to time. The hospital as a whole is still remaining dependant on funds from abroad and government supports.

The petrol station is almost completed, it will serve as an income generating project of the hospital and trying to boost the hospital income, although it is purely counted as non medical related activity.

On behalf of the hospital management team,

…….

Dr. Joseph Lugumila (AMO)

Doctor In-charge

Background

The Hospital was founded on the large highland plateau of Tanzania in Tabora region in the early 1930s by the Missionary Sisters of Our Lady of Africa "The White Sisters". At this site, in the village of Uhemeli, Ndala Hospital was built in 1965. It is a voluntary agency hospital. Under the auspices of the Archdiocese of Tabora, the Sisters of Charity of St. Charles Borromeo are responsible for its management.

This hospitals vision:

The sick cared, saved and liberated in the wholeness of God's kingdom.

The environment

Ndala Hospital is situated in Nzega district, near the border with Ujui district. The hospital lies 8 km off halfway the main road between the district capital town Nzega and the regional capital town Tabora. Ndala is mostly relying on these towns, both approximately 70 km away, for supplies. This road is still an unpaved road, in poor condition during the wet season, but construction of a new bitumen standard (tarmac) road is well underway.

The area around Ndala is arid and during the long dry season collected rainwater and water collected from one of the wells is used. The local government is presently building a new water distribution system with multiple taps in the village to replace the 1 shallow well that is currently used by the whole village. For electricity the hospital relies on solar panels and a generator. Soon the village and hospital are getting connected to the national TANESCO power grid. Besides the aforementioned developments the hospital has also benefited with the arrival of a mobile telecommunication network (starting with telephone in 2003) and large scale introduction of motorcycles, which enables patients to reach the hospital earlier.

Community and Health status

Demographic and economic data

Tanzania had an estimate population is 43 million in 2010, with more than 2 million living in Tabora region (population density of 31/sq km). Tanzania is one of the poorest countries of the world and ranks 152nd country on the world Human Development Index. The Gross Domestic Product per capita is USD 553. Most people in rural areas (90% in Ndala catchment area) are involved in peasant farming and animal husbandry.

Health Indicators

Overall Tanzania health indicators remain poor, although figures are improving. The life expectancy on the mainland is 55 years. Per 1000 live births 51 infants and 81 under-fives die. There are 454 maternal deaths per 100,000 live births. Incidental cases of rabies and tetanus occur, as well as epidemics of measles, which shows there are still major public health problems.
The total fertility rate of rural mainland Tanzania is still high; 6.1 children per woman. Only 27% of all Tanzanians use modern family planning methods.

AIDS pandemic

The effects of the HIV/AIDS pandemic contribute to the poor health indicators. Mainland Tanzania's overall prevalence is 5.8 percent, among women and men 6.8 and 4.8 percent respectively. Unprotected heterosexual intercourse is responsible for 80% of all new infections, mother-to-child transmission accounts for 18%. The prevalence in Tabora region is estimated at 6.1% in 2007/2008.

Community

Ndala ward consists of 4 villages: Uhemeli, Kampala, Wita and Mabisilo. The approximately 20,000 people in these villages are for their primary care dependent on Ndala Hospital, this year district counsel built two primary healthy facilities (dispensary) in Wita and Uhemeli villages which are expected to provide services at primary level anytime when qualified staff are available, but the catchment area for second line treatment is much bigger, up to 7500 sq. km, inhabited by 300.000 people. The majority of these people are of Nyamwezi and Sukuma tribes. It is a rural area with arid land at an altitude of 1100 meters. 15% of the land is cultivated. Main products are maize, rice and groundnuts. Tabora region is also known for tobacco and honey.

Health infrastructure and external relations

Health infrastructure

Ndala hospital is situated at the border of Nzega and Uyui districts. Nzega district has a government hospital, but Uyui district has no hospital. About 55 kilometers to the Northeast, in Igunga district is Nkinga Mission Hospital, which is a referral hospital and offers good referral options for ophthalmological and orthopaedic patients. Another official referral hospital is Kitete Regional hospital in Tabora, but does not function as such. In reality, Ndala Hospital functions often as a referral hospital for government hospitals, especially for surgical patients. The main referral option is Bugando Medical Centre in Mwanza, about 330 kilometers north, and Dar es Salaam for oncological patients. Referral this far is often not an option, so most acute problems need to be solved in Ndala.

The Archdiocese of Tabora

The Catholic Archdiocese of Tabora owns the hospital. The Administrator and Medical Officer in Charge (MOiC) are members of the Archdiocesan Health Board (AHB), in which all health facilities under the Catholic Archdiocese are represented. Ndala is the only hospital, furthermore there are three catholic health centres (Ussongo, Ipuli and Kaliua) and five dispensaries (Kipalapala, Igoko, Lububu, Mwanzugi, Sikonge and Bukene). The AHB convened 4 times in 2013. The AHB gets structural report from Japanese Overseas Christian Medical Cooperative Service (JOCS). The current secretary is Fr. Alex Nduwayo.

Christian Social Services Commission

The Christian Social Services Commission (CSSC) is the joined body for all Christian related institutions in Tanzania, both for health and education. The CSSC should function as a link

between government and mission institutions and formulation of joint policies. There is a CSSC zonal office in Tabora. The CSSC assists Ndala Hospital with sponsorship of staff, administrative issues and has been working on building a new theatre complex.

Government

Ndala Hospital participates in the health activities of Nzega district. The District Health Management Team (DHMT) visits regularly for supervision. The district relies on the hospital for 1st line care in Ndala village and supplies the hospital with vaccinations. Ndala Hospital receives a share of the district Basket Fund and the Ministry of Health (MoH) provides staff grants for 38 qualified workers but the procedure to register new staffs – after a staff-member has left – has become very lengthy and complicated. The actual number is lower. (22)
The MOic of Ndala Hospital is a member of the District Health Board (DHB) and involved in compiling the Comprehensive Council Health Plan (CCHP).Both the District Medical Officer (DMO) and Regional Medical Officer (RMO) are members of the Board of Governors (BoG) of Ndala Hospital.

Technical Assistance

Ndala Hospital participates in the AMREF flying doctor outreach program of Tabora Region. In 2013 6 visits of 4 days were made by the following specia~~x~~lists: ~~2 a~~ two gynaecologists, once an urologist, a general surgeon and a physician. The Belgian organization Medics without Vacation also regularly sends medical teams and equipment. The team of Spanish maxillofacial surgeons from Fundación Españiola de Cooperación Sanitaria didn't come in 2013 but are expected in the beginning of 2014 to operate again on cleft lips etc. Management assistance is given by a group of Dutch doctors. Three of them (Dr. Gerard Haverkamp, Dr. Adriaan Groen and Dr. George Joosten) visited Ndala in 2013. Dr. Herman Drewes had made his farewell in 2012. The Japanese surgeon Dr. Yoichi Miyao from JOCS who had not been able to visit Ndala in 2012, came again for a some weeks.

Donors

Ndala is still relying on friends and donors to help with projects and activities. Donations can be send to the euro account of the hospital or through the Tabora Foundation. In this report many donors are mentioned in the section regarding their help. A complete list of names is given in appendix 6. In this section we would like to mention Pius XII Foundation, which helps in construction and renovation of hospital buildings, Nolet Foundation for educational sponsorships and sponsoring of the Puge petrol station and Porticus, which has given grants for the renovation of the Reproductive and Child Health clinic (RCH) and the completion of the petrol station.

Management

The Hospital Management Team (HMT) manages the hospital. The HMT is responsible for the day-to-day management and consists of 5 members (see appendix 2 for more details). Through the Board of Governors (BoG) the Catholic Archdiocese of Tabora appoints new members. The Board of Governors regularly meets twice per year, but in 2013 it met three

times to discuss several problems concerning staffs. The Board sets policies, approves budgets and supervise the activities of the HMT.

Human Resources

The Human Resource officer is responsible for human resource management. Ndala Hospital follows the Catholic Archdiocesan Conditions of Service and employs staff on a contracts for a period of 2 years. This is done to increase flexibility.
Retention of staff is difficult, which is seen when comparing the current hospital staff to the government establishment (see appendix 5). With local developments regarding road pavement and electricity the Ndala hopes to retain workers better. Other measures to improve retention are letting staff houses at favourable prices and a revolving fund for loans. An educational fund for children of hospital workers is supplied by the Tabora Foundation.

Training and upgrading

It is hospital policy to send staff for upgrading whenever possible to improve educational levels of staff. A bondage contract ensures the trainee will use new skills in favour of the hospital. Appendix 4 shows staff in training in 2013.

Staffs also get the opportunity to go to seminars and trainings in their field of expertise. On Wednesdays clinical lessons, given by staff or visiting specialists, are organized.

Ndala Hospital participates in the training of Dutch medical students from Groningen and Rotterdam for Tropical Medicine, Public Health and elective internships. In 2013 ~~5~~ five student-doctors stayed in Ndala Hospital for periods of one till three months.

Finances

The administrative and accounts department is headed by the hospital administrator. Here an overview is given. Although the hospital income is almost enough for running costs, deficits remain and for investments and expensive maintenance the hospital is depending on donations. The contributions of the government are insufficient and the patients too poor to be able to pay higher prices.

Trend income/expenditure (Tanzanian Shillings)

Income	**2013**	**2012**	**2011**	**2010**
Hospital (own income)	**549,757,000**	442,912,695	381,647,938	354,300,760
Government	**114,000,000**	48,258,180	101,827,898	90,581,261
Donations	**76,448.741**	98,847,399	137,004,962	68,008,300
Study sponsors	**11,347,850**	12,528,000	8,722,500	35,980,044
Bank		-	700,000	28,189,686
Total income	**763,553,591**	600,546,274	**629,903,298**	**577,060,051**
Expenditure				
Medicines and new office block (from Pius XII)	**30,286.400**	29,826,237	61,801,150	76,779,840
TB ward (from Sonnevanck)	**14,894,000**	14,204,863	10,737,750	11,980,755
Study/training	**12,302,850**	18,530,000	43,986,100	47,118,344
Basket fund	**105,808,940**	65,713,540	63,768,940	42,207,234
Running costs (administrative)	**594,983,329**	486,671,882	445,235,850	387,707,337
Total expenditure	**758,275,429**	614,946,522	**620,810,040**	**565,703,510**
Balance				
Hospital own income vs	**549,757,000**	442,912,695	381,647,938	354,300,760
Running costs	**594,983,000**	486,672,882	445,235,850	387,707,337
Balance	**- 45,226,239**	*-43,760,187*	*-63,605,912*	*-33,406,413*
Hospital own income vs	**549,757,000**	442,912,695	381,647,938	354,300,760
Total expenditure	**758,275,429**	614,946,522	620,810,040	565,703,510
Balance	**- 208,518,429**	*-172,033,827*	*-239,162,102*	*-211,402,450*
Addendum				
NSSF sharing (income)	**3,899,478**	2,133,000	2,820,000	2,652,000
EGPAF (income)	**720,000**	855,800	945,473	3,567,830
Treatment employees (expenditure)	**0**	0	3,307,650	40,000
Unpaid patient fees (expenditure)	**532,500**	522,000	375,700	251,400

Curative services

Out-patient department (OPD)

Trend OPD

General OPD	2013	2012	2011	2010	2009
New cases	**11,671**	15,961	8,418	9,633	10,721
Re-attendances	**20,556**	12,021	14,045	17,036	
Re-attendances (dressing)	**2,172**	1,935	2,559	4,557	2,935
Total OPD	**34,399**	**38,917**	**25,022**	**31,226**	**25,609**
Special clinics					
TB/leprosy (registered)	**157/3**	138/4	139/20	136/20	148/8
Epilepsy/Mental health (attendances)	**149**	2014????	201	274	954
Eye-clinic (attendances)	**239**	359	414	391	287
Dental clinic (extractions)	**125**	118	124	126	144

TB and Leprosy clinic

All TB activities and treatment costs are sponsored by the Sonnevanck foundation, so we can provide free services to all patients. The new TB ward will be put in permanent use shortly. The TB clinics are run by 2 Clinical Officers.

Trend tuberculosis

	2013	2012	2011	2010	2009
Patients on January 1st	**33**	45	51	43	66
New patients	**107**	86	80	88	72
Re-treatment	**6**	5	1	2	7
Transferred –in	**10**	2	5	3	3
Transferred –out	**1**	0	2	0	0
Total registered	**157**	138	**139**	**136**	**148**
Pulmonary (sputum-pos)	**53**	69	70	79	74
Pulmonary (sputum-neg)	**20**	15	24	22	40
Extra-pulmonary	**33**	54	45	35	44
HIV-pos	**34**	23	54	43	42
Treatment results:					
Completed	**16**	46	39	37	35
Cured	**12**	32	47	42	48
Failed	**2**	0	1	0	0
Transferred	**11**	21	2	12	2
Died	**8**	7	11	3	1
Defaulted	**2**	2	5	10	23

Trend leprosy

	2013	2012	2011	2010	2009
Pauci-bacillary	**0**	**0**	0	0	0
Multi-bacillary	**3**	**4**	20	20	8
Total registered	**3**	**4**	**20**	**20**	**8**

Epilepsy and mental health clinic

Once weekly a specialized nurse runs the epilepsy and mental health clinic. The treatment is free and sponsored by the Tabora Foundation.

Eye clinic

A specialized nurse runs the weekly eye clinic. Patients can be referred to Nkinga hospital for refraction tests and cataract surgery.

Most common eye diseases

Eye disease	2013	2012
Conjunctivitis	**54**	72
Cataract	**46**	51
Trauma	**16**	36
Refraction	**20**	58
Presbyopia	**24**	44
Others	**79**	98
total:	**239**	359

Dental clinic

In the dental clinic currently only extractions are done, 125 in 2013. There are plans to train new staff for this clinic.

In-patients

Patients are admitted in one of the four wards: Male, Female, Children and Maternity ward. There is private ward, but also every regular ward has a semi-private room. All the rooms have isolation rooms; the children ward has five of these and an extension which can be used in case of epidemics. In 2013 a start has been made with the renovation of the male ward. Completely new units have replaced two dilapidated toilet/washing units.

Trend on-patients (total beds: 146)

	2013	**2012**	**2011**	**2010**	**2009**
General admissions	**8,133**	**5,060 #**	5,255	5,425	6,959
Admissions for delivery (+ BBA)	**2265**	2,280	2,129	2,228	2,218
Total admissions	**10398**	7,340 #	**7,384**	**7,653**	**9,177**
Number of deaths	**360**	268	373	297	443
Overall death rate (per 1000 admissions)	**35**	36,5	70	55	63

In-patients per ward 2013

	Beds		**Admissions**		**Deaths**		**Death rate %**	
	2013	'12	**2013**	'12	**2013**	'12	**2013**	'12
Male	**28**	28	**1,210**	927 #	**57**	71	4,7	7,6
Female	**28**	28	**2,192**	1,644	**61**	75	2,8	4,6
Children	**51**	45	**4,362**	2,226	**210**	107	4,8	4,8
Deaths in Maternity	**32**	20	**2,592***	2,503	**23****	11	-	-
Premature (in Mat.)	**(4)**	4	**42**	35	**9**	3	-	-
Private	**5**	3	**0**	5	**0**	1	-	-
Total	**144**	128	**10,398**	7,340 #	**360**	268	**3,5**	**3,6**

These data have been corrected after re-counting the number of admissions in the male ward in 2012.

* The total of women that came for delivery + sick neonates coming from elsewhere.

** See next paragraph for maternal mortality. This figure includes neonates that died.

NB. The increase in admissions in 2013 seems somehow unbelievable, but all the admission books have been counted again. The increase in the CW is striking.

Obstetric department

Figures of this department remain stable throughout the years.

Trend obstetric department

	2013	**2012**	**2011**	**2010**	**2009**
Deliveries	**2,248**	2,260	2,107	2,195	2,209
BBA	**17**	20	22	33	9
Total deliveries	**2,265**	2,280	2,129	2,228	2,218
Spontaneous vertex delivery	**1,960**	1,919	1,746	1,910	1,936
Breech delivery	**60**	35	69	57	56
Vacuum (ventous) extraction	**17**	69	46	15	11
Multiple pregnancies: 2x 3x	**55** **0**	53 0	73 0	100 3	69 1
Caesarean sections*	**278** **(12,4%)**	254 (11.2%)	246 (11.7%)	256 (11.7%)	215 (10%)
Maternal deaths	**6**	11	14	13	10

*This number is derived from the theatre register and differs from the delivery book (228).

Complications 2013

	2013	**2012**
Uterine rupture	**7**	11
Placenta praevia / APH	**17**	13
Post-partum hemorrhage (PPH)	**17**	9
Abruptio of placenta	**5**	3
Eclampsia	**13**	29

Trend neonatal outcome

Births	**2013**	**2012**	**2011**	**2010**	**2009**
In hospital deliveries	**2,248**	2,260	2,107	2,295	2,275
Before arrival	**17**	20	22	33	9
Extra babies of multiple pregnancies	**55**	52	73	106	53
Total babies	**2320**	2,332	**2,195**	**2,328**	**2,284**
Macerated stillbirths	**65**	76	47	48	58
Fresh stillbirths (per 1000 newborns)	**79** **34‰**	85 (36‰)	74 33‰	73 31‰	77 34‰

Maternal deaths 2013

Maternal deaths 2013

	Diagnosis & cause 2013	**Diagnosis & cause 2012 (9)**
1.	**Ecclampsia. Pte was brought from home in a poor state. She died before anything could have been done.**	- PPH caused by retained placenta - Ruptured uterus - Ruptured uterus - Perforated uterus with septic shock (after criminal abortion) - Hypovolemic shock in incomplete (criminal?) abortion -PPH - Abruptio of placenta - Ruptured uterus - Anesthetic complication in Caesarean Section -Sudden death short after delivery, unknown cause Eclampsia
2.	**Ecclampsia. Pte came from a remote dispensary. Had been started on magnesium and died during delivery.**	
3.	**Ruptured uterus. Patient referred from dispensary. Died while preparing for emergency caesarean section.**	
4.	**PPH. Pte had delivered at home in shock and died while receiving BT.**	
5.	**Sudden death. Patient died just after arrival lying on the delivery bed.**	
6.	**Sudden death. Died unexpectedly while being assessed.**	

Theatre

Trend surgery and anaesthesia

	2013	**2012**	**2011**	**2010**	**2009**
Major procedures	**671**	643	686	697	634
Minor procedures	**± 2500**	2,473	2,089	2,728	1,694
Anaesthesia (general/local or regional)	**1321** **536/785**	1,318 (798/520)	1,504 (747/757)	1,728 (893/835)	1,595 (756/839)

Major procedures 2013

General		**Genito/urinary**	
Bowel perforation	**0**	Prostatectomy (open, transvesical)	**26**
Bowel resection and anastomosis	**37**	Prostatectomy (TURP, transurethral)	**12**
Colostomy	**5**	Urethral/bladder stones removal	**3**
Adhesiolysis	**0**	Orchidectomy	**4**
Cleaning abdomen (abscess I&D)	**-**	Hydrocelectomy	**12**
Appendectomy	**9**	Urethro-cystoscopy	**2**
Diagnostic laparotomy	**38**	Other genito/urinary	**4**
Cholecystectomy	**0**		
Inguinal hernia	**35**	**Obstetrical/gynaecological**	
Other hernia	**0**	Caesarean section	**278**
Splenectomy	**0**	CS which with tube ligation	**-**
Volvulus (sigmoid/intestinal)	**-**		
Mastectomy/breast lump	**-**	Ectopic pregnancy	**63**
Hemorrhoidectomy	**-**	Bilateral tube ligation	**68**
Excision tumor	**12**	Ovariectomy/cystectomy/myomectomy	**6**
Sequestrectomy	**2**	Total abdominal hysterectomy	**27**
Perforated peptic ulcer	**-**	Subtotal hysterectomy	**3**
Contracture release	**-**	Repair 3rd degree tear	**2**
Amputation (of limb)	**1**	Pelvic abscess/pyosalpinx	**-**
Re-laparotomy (exploratory)	**2**	Colporraphy	**-**
Skin grafting	**-**	Other Obst./Gyn.	**4**
Other general			
Thyroidectomy	8	**Other specialties**	
		Nasal polyp/adenoid hypertrophy	**4**
		Tonsillectomy/adenoidectomy	**5**
		Cleft lip/palate repair	**-**
		total	**671**

Minor procedures 2013

General		**Orthopaedic**	
I&D abscess or arthritis	**79**	Reduction dislocation (joint/fracture)	**79**
Exploration/aspiration	**13**	Tibial pin traction	**5**
Cut wound, suturing	**212**	Amputation finger/toe	**-**
Woundtoilet/necrotectomy	**35**	Back slab POP	**67**
Suture removal	**452**	Circular POP	**35**
Foreign body removal	**34**	Arm sling	**35**
Bandaging	**28**	Clubfoot POP reduction	**11**
Excision tumo~~ur~~	**16**		
Tongue tie	**2**	**Obstetrical/gynaecological**	
Ascites aspiration/tap	**2**	Speculum examination	**40**
Pleural aspiration/tap	**-**	Evacuation/D&C	**125**
Thorax drainage	**-**	Manual removal retained placenta	**8**
Anal fissure, proctoscopy	**-**	Repair perineal or cervical tear	**11**
Reduction rectal prolapse	**2**		
Ear syringing/otoscopy	**20**	**Genito-urinary**	
Wound dressings	**505**	Bugination	**1**
Other procedures	**3**	Supra-pubic catheterization	**40**
		Urinary catheterization	**65**
		Circumcision	**30**
		Reduction paraphimosis	**4**
		Total	**1959**

Anaesthesia

Specialized nurses are responsible for giving anaesthesia and assist in resuscitation in all the wards. In the major theatre spinal regional anaesthesia is most frequently used, in the minor theatre most often ketamine.

2013	**Major procedures**		**Minor procedures**	
General :	**Adult**	**Child**	**Adult**	**Child**
Halothane + intubation	**31**	**20**	**0**	**?**
Ketamine only	**200**		**235**	**?**
Local/regional :	**10**		**402**	
Spinal anaesthesia	**313**		**0**	**-**
Saddle block	**-**		**0**	**-**
Nerve/biers block	**-**		**0**	
Infiltration lignocaine	**-**			**-**
total	**544**	**20**	**637**	**110**
	Total : 564		**Total : 747**	

Prevention and health promotion

Public health care / Tabora Foundation

Besides the RCH activities Ndala hospital has other programs focused on public health care, such as malnutrition program and several HIV/AIDS related services that are conducted at the Care and Treatment Center (CTC).

The Stichting Tabora (Foundation)
Ndala hospital lacks a large-scale primary health care department but fortunately the Tabora Foundation has some community-based public health and charitable programs. The Stichting is founded by a former MOiC, Dr George Joosten and his wife Gon. They are run by a local committee. Some of their activities:

- A reproductive HIV/AIDS awareness educational program for primary and secondary schools. **2013 has been the 14th and last year of this program.**
- Support of poor households in the area.
- Educational support of poor children.
- Support of small projects in Ndala hospital.

Reproductive and Child Care

Last year the RCH has moved from the very old building to a new spacious and modern building with many rooms for seeing patients and a large hall.
The preventive clinics of the RCH are responsible for the ward Ndala with a total population of approximately 20.000 people. During the dry season a mobile RCH clinic visited the villages of Kigandu, Mitundu and Mabisilo.

Trend total RCH attendances

	2013	**2012**	**2011**	**2010**	**2009**
Under-5 and ANC	**21,186**	26,413	25,195	27,444	23,354

Trend under-5 RCH attendances (1st and re-attendance)

Ndala	**2013**	**2012**	**2011**	**2010**	**2009**
Children < 12 months	**11,411**	14,174	11,025	13,612	10,230
Children > 12 months	**4,616**	1,429	1,260	2,779	2,865
Subtotal Ndala	***16,027***	*15,603*	*12,285*	*16,391*	*13,095*
Mobile clinics					
Children < 12 months	**931**	629	1,166	1,106	992
Children > 12 months	**457**	403	447		195
Subtotal mobiles	***1388***	*1,032*	*1,613*		*1,187*
Total under-5	**17,415**	**16,636**	**15,601**	**17,908**	**14,282**

Antenatal attendances

	2013	**2012**	**2011**	**2010**	**2009**
Ndala	**3676***	9,546	9,188	9,269	8,483
Mobile clinics	**95**	231	406	267	281
Total antenatal *	**3771***	**9777**	**9,594**	**9,536**	**9,072**

Footnote concerning the reduction in Antenatal Attendances!

Trend risk factors seen at RCH

Malnutrition Under-5 1st attend.	**2013 (tot: 2722)**	**2012**	**2011**	**2010**	**2009**
BWT 60-80 percentile	**2673 (98%)????**	**Unknown**	9.8%	13.2%	9.8%
BWT below 60 percentile	**49 (1,8%)**	**Unknown**	9%	0.2%	0.8%
Risk factors Antenatal 1st attend.	**(total:2828)**	(total: 3655)			
Age < 16 years	**23 (0,8%)**	**16.2%**	22.4%	12.8%	10.4%
Age > 35 years	**240 (8,5%)**	**7.3%**	8.6%	7.3%	6.1%
Parity > 4	**1065 (37%**	**19.8%**	24.2%	21.9%	18.3%
Hypertension (>140/90)	**1 ????**	**2.3%**	1.5%	2.9%	2.8%
Anaemia (Hb <6g/dL)	**1 ????**	**3.5%**	3.0%	3.8%	1.9%

Vaccines given

Tetanus toxoid (antenatal)	**2013**	**2012**	**2011**	**2010**	**2009**
I	**2,478**	2,103	2,146	2,026	2,561
II	**2,422**	1,065	1,169	1,180	1,425
III	**985**	309	278	163	188
IV	**612**	165	163	104	111
V	**420**	81	124	48	88
BCG					
At birth	**1506**	499	1,054	1,358	981
At later time	**210**	512	954	754	1,226
Polio					
0 (at birth)	**1,116**	445	1,254	1,370	1,132
I	**1,261**	634	1,437	1,666	1,861
II	**1,081**	745	1,211	1,839	1,741
III	**1,032**	605	1,051	1,429	1,212
DTP					
I	**1,409**	762	1,833	1,577	1,739
II	**1,135**	874	1,723	1,323	1,551
III	**997**	773	1,551	1,090	1,268
Measles	**1,033**	710	1,400	1,014	1,381
Total vaccinations	**17,697**	**10,282**	**17,348**	**16,941**	**18,465**
Vitamin A supplement	**1033**	**710**	1,400	708	
Vaccinations of children allocated outside Ndala ward in MTUHA system	**are not being recorded any longer separately.**		59%	48%	51%

Family planning

	2013	2012	2011	2010	2009
New attendees	**37**	88	138	155	105
Total visits*	**65**	416	797	540	450

* This number represents only the counselled people who received specific materials and not the number of clients that were advised to go to health facilties of the governement that have more and free contraceptive drugs.

HIV/AIDS programs

HIV/AIDS programs consist of various forms of testing and treatment aimed at early detection, increase health and prevention of transmission. Different departments are involved and in this report all these activities will be discussed in this section. The programs fall under the National AIDS control program and in Tabora region are sponsored by Elizabeth Glazer Paediatric AIDS Foundation (EGPAF). Due to national shortage of HIV test kits testing was not done in the VCT and PITC programs in the months of April, May, June and July.

Voluntary counselling and testing (VCT)

Voluntary counselling and testing increases awareness and promotes prevention by means of early detection.

Trend patients tested

	2013	2012	2011	2010	2009
Clients counselled	**6771**	1028	1753	2215	1954
HIV positive	**214 (3,2%)**	108 (11%)	159 (9%)	266(12%)	243(12%)

Age groups tested 2013

Age (yr)	<15		15-24		25-34		35-49		>50	
Gender	M	F	M	F	M	F	M	F	M	F
Counselled	**1378**	**893**	**929**	**413**	**1161**	**332**	**952**	**307**	**250**	**156**
HIV pos	**14 (1%)**	**16 (1,8%)**	**27 (2,9%)**	**15 (3,6%)**	**25 (2,1%)**	**40 (12%)**	**27 (2,8%)**	**21 (6,8%)**	**17 (6,8%)**	**12 (7.7%)**

Care and Treatment Clinic (CTC)

The CTC of Ndala hospital, started in 2006 and since 2012 in a large new building, provides free care and treatment for patients living with HIV/AIDS. After receiving a positive test result patients are referred to the CTC where they will receive additional counselling and have to successfully attend 3 classes. After this they can start treatment with anti-retroviral therapy (ART). While previously only some first line drugs were available, the clinicians can now choose from a variety of drugs, including second line. In 2012 the new large and modern building was officially opened on January 25th by the regional commissioner. Also the laboratory is equipped with a CD4-counter to assess the level of immunity and thus determine the moment to start treatment. The staff consists of 24 people, most of whom have other functions in the hospital as well.

Trend patients CTC

	2013	2012	2011	2010	2009
Number enrolled patients	**3,065**	2,798	2,297	1,967	-
Patients on ART (percentage)	**1,637 (53%)**	1,308 (46.7)	975 (42.4%)	843 (42.8%)	-

Through the CTC 45 Village Health Workers (called Home based Care service providers) are visiting chronically ill patients. They are not being paid salary, but are provided with bicycles and get allowances to maintain them.

Trend visits Home Based Care

	2013	2012	2011	2010	2009
Visits	**2471**	3,201	3,641	2,702	
HIV/AIDS	**?**	3,001	2,591	1,761	

Prevention of Mother to Child Transmission (PMTCT)

Since 2006 Ndala Hospital participates in the national PMTCT program. 16 workers have been trained and provide services on a daily basis. In the RCH all pregnant women are counselled and tested. If tested positive she is assessed to be eligible to start lifelong ART or to receive prophylactic treatment during pregnancy and breastfeeding only. In maternity ward all women delivering are tested, if they have not been tested already. Drugs are supplied to mother and infant and they are referred back to the RCH for follow-up treatment and controls. Although this PMTCT schedule is proven to be very effective many barriers exist, mainly because women do not get tested during pregnancy (mainly because not attending any clinic) and because they abscond from follow-up after delivery.

Trend PMTCT

	2013	2012	2011	2010	2009
Pregnant mothers tested RCH	**2,385**	2,612	2,282	1,977	1,946
Mothers HIV positive RCH (percentage of total)	**61**	74 (2.8%)	71 (3.1%)	93 (4.7%)	69 (3.5%)
Referred CTC	**61**	40			
Maternal prophylaxis RCH	**50**	74			
Maternal prophylaxis LW	**-**	8			
Neonatal prophylaxis	**40**	62	25	35	
Neonates that came for follow-up	**118**	229	68	75	

Provider Initiated Testing and Counselling (PITC)

Patients who attend the hospital because of health complaints might be tested because the clinician thinks the complaints might be related to HIV infection. Specially trained counsellors, either at the OPD or in the wards, counsel these patients.

Increasingly PITC is used as a screening method for asymptomatic patients, for example for all admissions in children ward, which accounts for the fall in patients tested positive. Also an increasing number of patients with symptomatic HIV have already been tested (before, elsewhere or through VCT) and do not need PITC.

Trend PITC

	2013	2012	2011	2010	2009
Patients tested	**6,771**	**6,856**	1,714	2,512	6,59
Patients positive (percentage)	**204 (3,0%)**	**196 (2.9%)**	290 (16.9%)	687 (27.3%)	144 (21.9%)

Supporting Services

Laboratory

Laboratory investigations 2013

	Total	Posit.		Total	Abnorm.	Totals 2012
Parasitology			**Haematology**			
Blood slide	**15,602**		Haemoglobin	**6,209**	**1,604**	
Malaria		**6557**	White blood cells	**596**	**41**	
Stool	**603**		ESR	**413**	**149**	
Hookworm		**84**	Sickle Cell Test	**183**	**30**	
Giardia		**5**	**Biochemistry**			
Ascaris		**2**	Liver function	**380**	**64**	
Strongyloides		**1**	Serum glucose	**1,450**	**790**	
Urine	**1,348**		Urine protein	**1,861**	**253**	
Schistosoma		**2**	Urine pregnancy	**611**	**254**	
Trichomonas		**0**	**Serology**			
Bacteriology			VDRL (Syphilis)	**317**	**20**	162/14
Ziehl-Neelsen	**464**		HIV (all programs)	**6,909**	**467**	
Tuberculosis		**75**	**Blood donation**		**612**	?
Gram	**136**	**19**	Units transfused	**1202**		824
Bacteria		**46**	**Other**			
			Sperm analysis	**14**	**7**	
			CD4	**1,390**	**989**	
			RenalF.T.	**120**	**4**	
			GRAND TOTAL	**39,808**	**---**	19,781

Pharmacy and IV fluid production unit

Drugs are kept in the Main Pharmacy from which daily drugs are given out to the dispensing room at the OPD. In 2011 this building, together with the IV-unit have been renovated and enlarged. The whole unit has still to be brought up to KCMC standards.

The IV fluid production unit produces sterile fluids for injection.

Trend IV unit:

Liters	**2013**	**2012**	**2011**	**2010**	**2009**
Normal saline	**2100**	2060.5	2318	-	-
Dextrose 5%	**671**	585.5	1175.5	3045	-
Ringer's Lactate	**616**	367	-	-	-
Irrigation fluid	**895**	1660	945	5980	-
Dextrose 50%	**11,7**	3.4	12	15	-

Radiology

The radiology department supplies the hospital with radiography and ultrasonography. In 2012 a new modern ultrasound machine has been installed, donated by Vlietland ziekenhuis and transported through Nolet Foundation, both from Holland.

The longstanding problem with the back-up batteries of the major X-ray machine has been solved by the connection to the national grid TANESCO. Two days per week a Radiology Technician of Nkinga Hospital is coming to Ndala to make X-Rays. Moreover a Radiology Technician from Tabora is has been visiting Ndala. Both are temporary filling the vacancy for a Radiology Technician after the departure of Mr. Peter Katinda.

Radiology

	2013	**2012**	**2011**	**2010**	**2009**
Chest	**95**	312	341	136	310
Extremities	**54**	480	361	204	399
Shoulder	**7**	15	19	7	9
Pelvis/hip	**9**	42	53	19	53
Vertebral column	**4**	37	13	11	15
Plain abdomen	**6**	15	55	11	7
Hysteros-alpingogram	**5**	5	-	-	-
Total	**180**	**906**	**861**	**400**	**804**
Films used	**185***	**1200**	922	516	1003

Ultrasound

	2013	2012	2011	2010	2009
Obstetrical	**126**	131	106	78	142
Gynaecological	**110**	415	206	160	202
Abdominal (upper)	**71**	112	188	152	185
Urologic	**27**	63	32	21	40
Heart	**-**	9	6	1	3
Other	**78**	5	1	2	-
Total	**412***	**735**	**539**	**414**	**572**

* Because there is still no qualified (assistant) Radiology Technician and only one doctor experienced in using ultrasound the data are low in comparison with 2012. The very experienced X-Ray assistant Mr. Lucas Madeleka only takes X-rays in emergency situations.

Administration

The administrator is responsible for finances and control. Most of this work is still done manually, although increasingly computers are used.

Medical records and statistics

The medical records clerk is responsible for records keeping, statistics, and reports to the MOiC. Medical data are collected according to the national MTUHA health information system and sent to the District Health Office, as well as the Archdiocesan Health Secretary. Patient records are kept at the office at the reception in the recently renovated OPD building. Each patients gets a unique personal registration number.

Technical Department (TD) and Transport

The TD has the task of maintenance of hospital buildings, staff houses, water collection, electrical systems, medical equipment and vehicles. The hospital has been using a combination of solar and generator powered electricity. TANESCO has connected Ndala to the national power grid and a consultant electrical company, together with staff of the TD, has finished upgrading the hospital electrical supply system to be able to accommodate TANESCO electricity. The solar system has been delivering cheap electricity almost the whole year through and thus has saved quite a lot of money.

The hospital uses 3 vehicles: 2 Toyota Landcruisers and 1 Landrover pick-up. The vehicles are mostly used for transport of goods, supplies and staff. Occasionally a car is used for the referral of patients. Three of the TD staff work as drivers.

Domestic department

The domestic department handles a variety of responsibilities, such as laundry, environmental control, bicycle shed, guesthouses, staff houses and storage of non-medical goods. The guesthouses are frequently used to accommodate visitors.

Plans for the future

- Renovation of the wards, continue Male Ward and Maternity ward.
- Starting to use the finished new Theatre complex and Mortuary (by CSSC)
- Renovation of the old Theatre complex, Minor Theatre and rooms for special clinics.
- Upgrading iv-unit to KCMC standards, including training of staff (prospecting beginning 2013)
- To repair/replace batteries of X-ray equipment
- Construction of a waste disposable system
- Upgrade staff for specialist services, e.g. ultrasound, dental care, dermatology
- Recruit more staff
- Improve secondary working conditions of the workers
- Construction of new Laboratory

Appendices

Appendix 1: map

Appendix 2: management

Members of the Board of Governors (December 2013)

Name	Position BoG	Function
His Grace Paul Ruzoka	Chairman	Archbishop Archdiocese Tabora
Rev. Fr. Alex Nduwayo	Member	Secretary AHB
Rev. Fr. Joseph Buhili	Member	Treasurer Archdiocese Tabora
Rev. Sr. Bernadetta Kessey CB	Member	Regional Superior Sisters of CB
Rev. Sr Theresia Sungi MM	Member	Regional Superior Sisters MM
Rev. Fr. Nicolas Bulabuza	Member	Parish priest Ndala parish
Sr. Dr. Marie-José Voeten CB	Member	MOiC Sengerema Hospital
Dr. Emmanuel Mihayo	Member	District Medical Officer Nzega
Dr. Leslie Mhina	Member	Regional Medical Officer Tabora
Rev. Sr. Georgetha Paul	Attendee	Hospital Administrator
Dr. Joseph Lugumila	Attendee	MOiC Ndala Hospital
Mr. Thomas Madimilo	Attendee	Health Secretary Ndala Hospital + secretary of the BOG.
Mr. Thomas Mtilimbanya	Attendee	Nursing Office ic Ndala Hospital

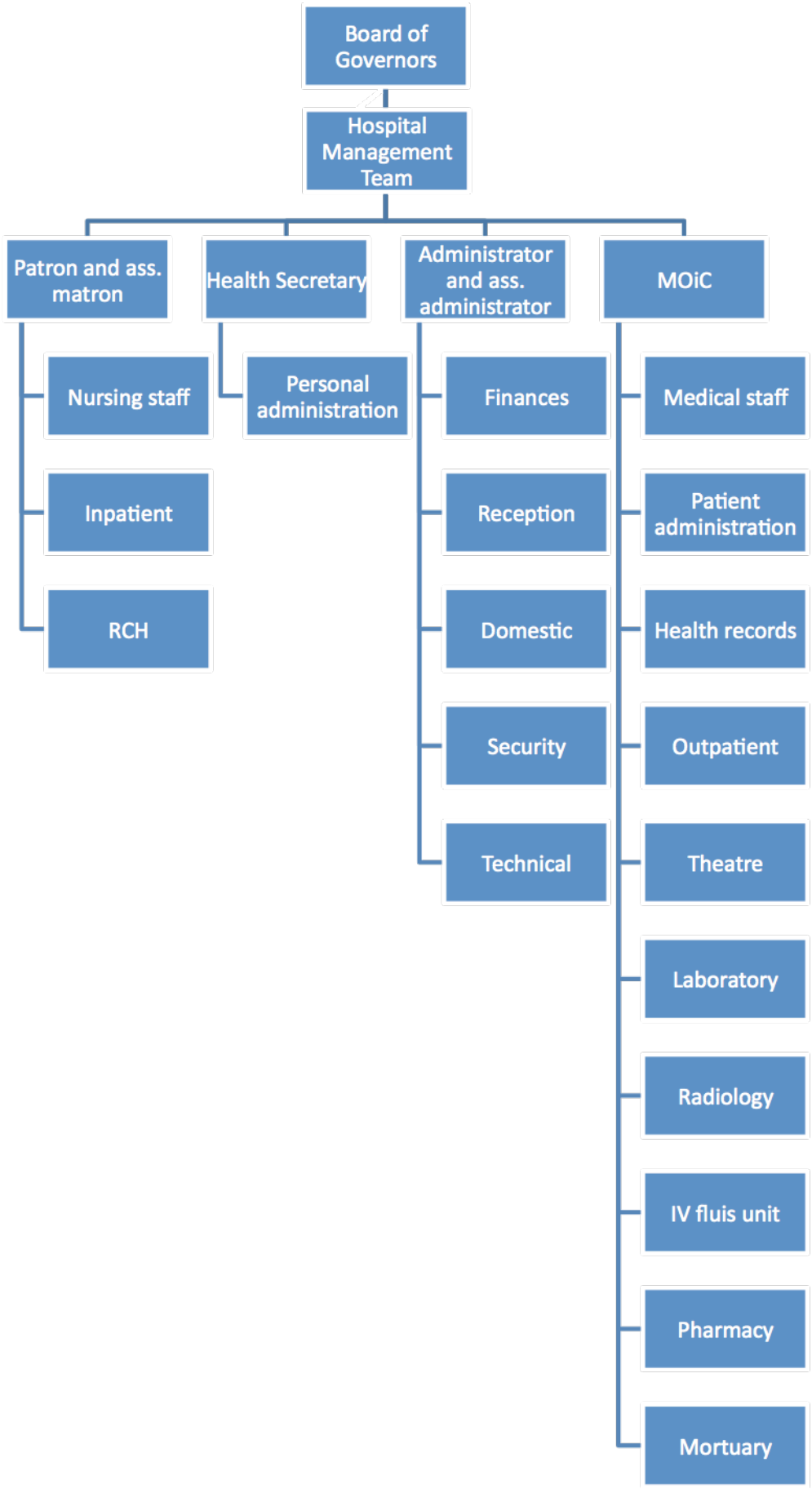
Members of the Hospital Management Team (December 2013)

Name	Function
Sr. Georgetha Paul	Administrator
Mr. Thomas Madimilo	Assistant Administrator / Health secretary
Dr. Joseph Lugumila AMO	Medical Officer in Charge
Mr. Thomas Mtilimbanya ANO	Nursing Officer in Charge (patron)
Mrs. Agnes Elikana ANO	Assistant Nursing Officer in Charge (assistant matron)

In charge positions (December 2013)

In Charge	Name
Medical Officer in Charge	Dr. Joseph Lugumila AMO
Nursing Office in Charge	Mr. Thomas Mtilimbanya ANO
Ass. Nursing Officer in Charge	Mrs. Agnes Elikana ANO
Administrator	Rev. Sr. Georgetha Paul
Health Secretary	Mr. Thomas Madimilo
Domestic department	Sr. Symphrose Melkiad CB
Compound	Rev. Sr. Reni Ngadi CB
Technical Department	Mr. Bruno Andrea Matalu
Male Ward	Mr. Samuel Nkilijiwa ANO (acting)
Female Ward	Rev. Sr. Florida Andrea ANO
Maternity/Labour Ward	Mrs. Gertruda Emanuel ANO
Children Ward	Mr. Obed Edward TN
RCH	Mrs. Tonica Andrea ANO
Laboratory	Mr. Elisha Maige Lab. Technician
OPD	Mrs. Grace Mlay ANO
Pharmacy	Mrs. Dorothy Massy ANO
Theatre	Mr. James Zakayo ANO
Radiology	Mr. Lucas Madeleka (acting)
Clinical Officers	Mr. Patrick Chubwa CO
CTC	Mr. Adriano Michael CO
VCT	Mr Elisha Maige, Laboratory technologist
PMTCT	Mr. Thomas Mtilimbanya ANO
PITC	Mr. Matthew Nduguru ANO
Eye clinic	Mrs. Grace Mlay ANO
Epilepsy/Mental health clinic	Mr. Matthew Nduguru ANO
TN/Leprosy clinic	Mr. Patrick Chubwa CO
Health records	Mr. Godfrey Silas
Security	Mr. Cypriano Emanuel
Laundry	Mr Emmanuel Dotto
Environmental control	Mr. John Mwagula (acting)
Secretary Tughe	vacancy

Organogram


Board of Governors
Hospital Management Team
Patron and ass. matron
Health Secretary
Administrator and ass. administrator
MOiC
Nursing staff
Inpatient
RCH
Personal administration
Finances
Reception
Domestic
Security
Technical
Medical staff
Patient administration
Health records
Outpatient
Theatre
Laboratory
Radiology
IV fluis unit
Pharmacy
Mortuary

Appendix 3: staff mutations 2013

Staff that left in 2013

	Name	Designation	Department
1	Teddy Calpaphore	ANO (died)	Male Ward
2	Peter samyu	Attendant	mazingira
3	Omari Ramadhani	Lab. Ass.	Maabara
4	Mwanghamis Ramadhani	ANO	Mat/Lab. Ward
5	Lydia Yusto	ANO	Mat/Lab. ward
6	Simon Wilson	ANO	Mat/Lab. Ward
7	Sylvanua Mapenza	ANO	Mat/Lab. Ward
8	Matthias Kasanga	EN	Theater
9	Clare Omary	CO	OPD
10	Alfred Maganga	Driver	TD
11	Eunice Selengeta	N/Attendant	Theater
12	Mary Masumbuko	N/Attendant	OPD (mapokesi)
13	Bruno C. Matalu	Laboratory Attendant	Maabara
14	Lucy Dyson	N/Attendant	Chlidren Ward
15	Mary Paul	ANO	Mat/Lab. Ward
16	Pius Itengeshe	Attendant	OPD (mapokesi)
17	Iddy Pungu	ANO	Female ward
18	Deusdedit Temba	Laboratory Attendant	Maabara

Staff that joined in 2013:

	Name	Designation	Department
1	Simon Wilson	ANO	Mat/Lab. Ward
2	Godfrey Kiloto	Attendant	Laundry
3	Justa Kasengerema	Laboratory Assistant	Maabara
4	Modesta marco	ANO	Mat/Lab. Ward
5	Theodosia Daudi	ANO	Mat/Lab. Ward
6	Rebecca Zambia	ANO	Mat/Lab. Ward
7	Musa Makela	ANO	Children ward
8	Genea Julias	N/Attendant	Female Ward
9	Liberata Kabula	ANO	Mat/Lab. Ward
10	Ester Ochalu	ANO	Mat/Lab. Ward
11	David Temba	Laboratory Assistant	Maabara
12	Joshua Atandu	EN	Theater
13	Nyambona Simon	EN	Female Ward
14	John Cornel	Attendant	OPD (mapokesi)

Staff on training / upgrading 2013

Name	Qualification	Institute	Sponsor	Available
Sr. Beatrice Ekisa CB	Accountant	SAUT	Porticus	2016
Sr. Beatrice Mroso CB	Ass. Pharm. Technician	KCMC	Porticus	2015

Appendix 4: staff establishment

Positions filled and required December 2013

	Present	Required	Deficit
Medical Officer (MO)	3	3	0
Assistant Medical Officer (AMO)	3	3	0
Clinical Officer (CO)	7	7	0
Nursing Officer (NO)	0	1	1
Assistant Nursing Officer (ANO)	17	20	3
Trained Nurse (TN)	9	12	4
Medical Attendant	45	45	0
Laboratory Technologist	1	2	1
Ass. Laboratory Technologist	4	5	1
Lab. Attendant	2	2	0
Pharmacology Technologist	0	1	1
Ass. Pharmacology Technologist	0	1	1
Radiology Technologist	0	1	1
Ass. Radiology Technologist	0	1	1
Administrator	1	1	0
Ass. Administrator	1	1	0
Hospital Secretary	1	1	0
Health Recorder	0	1	1
Office Attendant	6	6	0
Receptionist	5	5	0
Domestic department	11	11	0
Driver/Technician	3	3	0
Security Guard	8	8	0
Total	**122**	**136**	**14**
In training	6		

Appendix 5: donations 2013

Stichting Pius XII (renovations)
Congregation of St. Charles Borromeo General Board Maastricht (medicines)
The Sonnevanck Foundation (treatment of TB patients)
Stichting Nolet (expatriate staff, upgrading staff, transport ultrasound, petrol station)
Porticus (renovation RCH, petrol station)
Cordaid (upgrading staff)
Stichting Rentebescherming (upgrading staff)
Tabora Foundation
Stichting Bijzonde Noden Arnhem
Vlietlandziekenhuis (Ultrasound)
Jhpiego (facilitators PITC training)
AMREF Flying doctors (specialists)
EGPAF (HIV/AIDS program)
Medics without vacation (specialists)
Fundación Españiola de Cooperación Sanitaria (cleft lip surgery)
Dr. Herman Drewes (staff children education fund)
KWF through CSSC (construction new theatre complex and mortuary)
JOCS (upgrading staff)
Deurman Stichting (blankets, uniforms)
Dr. Paulus Lips (upgrading)
Emmanuel Parish Ommen (renovation RCH)
Wim Zwetsloot, Ommen (renovation RCH)
Xiao-Wei Xhou, Groningen
Cocky and Jan Wiersma, Schiedam (renovation RCH)
Dr Ramos and Rotary Club Madrid (new suction machine)

Many thanks to all!

Appendix 6: abbreviations

AHB	Archdiocesan Health Board
AIDS	Acquired Immunodeficiency Syndrome
AMO	Assistant Medical Officer
ANO	Assistant Nursing Officer
APH	Ante-Partum Haemorrhage
ART	Anti-Retroviral Therapy
BBA	Born before arrival
BCG	Bacille Calmette-Guérin
BoG	Board of Governors
BTL	Bilateral Tube Ligation
BWT	Bodyweight
CB	Charity of St. Charles Borromeo Congregation
CO	Clinical Officer
CS	Caesarean Section
CSSC	Christian Social Services Commission
CTC	Care and Treatment Clinic
DHMT	District Health Management Team
DMO	District Medical Officer
DHB	District Health Board
D&C	Dilatation and Curettage
DTP	Diphtheria Tetanus Polio
EGPAF	Elizabeth Glaser Pediatric AIDS Foundation
EN	Enrolled Nurse
ENT	Ear Nose Throat
ESR	Erythrocyte Sedimentation Rate
GDP	Gross Domestic Product
Hb	Haemoglobin
HDI	Human Development Index
HIV	Human Immunodeficiency Virus

HMT	Hospital Management Team
I&D	Incision and Drainage
JOCS	Japanese Overseas Christian Medical Cooperative Service
LW	Labour Ward
MM	Daughters of Mary Congregation
MO	Medical Officer
MOiC	Medical Officer in Charge
MoH	Ministry of Health
NO	Nursing Officer
NOiC	Nursing Officer in Charge
NSSF	National Social Security Fund
OPD	Out Patient Department
PITC	Provider Initiated Testing and Counselling
PMTCT	Prevention of Mother to Child Transmission
POP	Plaster of Paris
PPH	Post-Partum Haemorrhage
RCH	Reproductive and Child Health clinic
RMO	Regional Medical Officer
TANESCO	Tanzania Electric Supply Company Limited
TB	Tuberculosis
TD	Technical Department
TEC	Tanzania Episcopal Conference
TN	Trained Nurse
TUGHE	Tanzania Union of Government and Health Employees
TT	Tetanus Toxoid
USD	United States Dollar
VCT	Voluntary Counselling and Testing