

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES



ANNUAL REPORT FOR 2014/2015

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List of abbreviations

AIDS	Acquired Immunodeficiency Syndrome
ADEA	American Dental Education Association
AfDB	African Development Bank
AOR	Authorized Organization Representative
BMLS	Bachelor of Medical Laboratory Sciences
BRHI	Basic Research in Health Issues
BPOH	Basic Principles in Occupational Hygiene
B.Pharm	Bachelor of Pharmacy
BSc	Bachelor of Science
BScN	Bachelor of Science in Nursing
BSC RTT	Bachelor of Science in Radiation Therapy Technology
CBE	College of Business Education
CCBRT	Comprehensive Community Based Rehabilitation in Tanzania
CUHAS	Catholic University of Health and Allied Sciences
CHPE	Centre for Health Professions Education
CPA	Certified Public Accountant
CMS	Content Management System
CCM	Chama Cha Mapinduzi
CEPD	Continuing Education and Professional Development
CUGH	Consortium for University in Global Health
CS	Communication Skills
COTUL	Consortium of Tanzania University and Research Libraries
CNO	Chief Nursing Officer
CIRCLE	Climate Impact Research Capacity and Leadership Enhancement

COSTECH	Tanzania Commission for Science and Technology
CV	Curriculum Vitae
DDR	Diploma in Diagnostic Radiograph
DPS	Diploma in Pharmaceutical Sciences
DEHS	Diploma in Environmental Health Sciences
DMLS	Diploma in Medical Laboratory Sciences
DN	Diploma in Nursing
DNA	Deoxyribonucleic acid
DCEPD	Directorate of Continuing Education and Professional Development
DRP	Director of Research and Publication
DDS	Doctor of Dental Surgery
DICT	Directorate of Information and Communication Technology
DLS	Directorate of Library Services
DNS	Domain Name Server
DOS	Dean of Students
DUE	Director of Undergraduate Education
DVC	Deputy Vice Chancellor
DVC-PFA	Deputy Vice Chancellor Planning Finance Administration
EAC	East Africa Community
FA&MU	Florida Agricultural and Mechanical University
FYRSP	Five Year Rolling Strategic Plan
HIS	Health Information System
HEI	Higher Education Institution
HESLB	Higher Education Students Loans Board
HKU	Hubert Kairuki University

HIV	Human Immunodeficiency Virus
HCMIS	Human Capital Management Information System
HR	Human Resource
HRH	Human Resource for Health
HRMA	Human Resource Management and Administration
HSR	Health System Research
IAHS	Institute of Allied Health Sciences
IRB	Institutional Review Board
ICT	Information and Communication Technology
IMTU	International Medical and Technological University
IP	Internet Protocol
IRIM	Initiative on Research and Innovation Management
IT	Information and Technologies
ITM	Institute of Traditional Medicine
ITOCA	Information Training and Outreach Center for Africa
IUCEA	Inter-University Council of East Africa
KOFIH	Korea Foundation for International Health
KCMCo	Kilimanjaro Christian Medical College
MD	Doctor of Medicine
MMed	Master of Medicine
MPharm	Master of Pharmacy
MNH	Muhimbili National Hospital
MPL	Multipurpose Laboratory
MoH&SW	Ministry of Health and Social Welfare
MoEVT	Ministry of Education and Vocational Training

MEC	MUHASSO Electoral Committee
MUHAS	Muhimbili University of Health and Allied Sciences
MUHASSO	Muhimbili University of Health and Allied Sciences Student Organization
MSc	Master of Science
MSc TDC	Master of Science in Tropical Diseases Control
MPH	Master of Public Health
M&E	Monitoring and Evaluation
MUCHS	Muhimbili University College of Health Sciences
MOU	Memorandum of Understanding
MCW	Miracle Corners of the World
MP	Member of Parliament
NHIF	National Health Insurance Fund
NIH	National Institutes of Health
NIMR	National Institute of Medical Research
NHC	National Housing Corporation
NIBR	National Institute of Biological Research
NCD	Non Communicable Disease
NTNU	Norwegian University of Science and Technology
ODL	Open and Distance Learning
OHCEA	One Health Central and East Africa
OMS	Oral and Maxillofacial Surgery
OSP	Office of Sponsored Project
OUT	Open University of Tanzania
OPCD	Orthodontics Periodontics and Community Dentistry

OPRAS	Open Performance Review and Appraisal
PFA	Planning Finance and Administration
PhD	Doctor of Philosophy
PI	Principal Investigator
PMU	Procurement Management Unit
PMORALG	Prime Minister's Office Regional Administration and Local Government
QA	Quality Assurance
QC	Quality Control
RD	Restorative Dentistry
SARIS	Student Academic Records Information System
Sida	Swedish International Development Agency
SOD	School of Dentistry
SPHSS	School of Public Health and Social Sciences
SOPs	Standard Operating Procedures
SHDC	Senate Higher Degree Committee
SUA	Sokoine University of Tanzania
SON	School of Nursing
TACAIDS	Tanzania Commission for AIDS
TAMSA	Tanzania Medical Students Association
TANTRADE	Tanzania Trade Development Authority
TERNET	Tanzania Education and Research Network
TCU	Tanzania Commission of Universities
TFDA	Tanzania Food and Drug Authority
THC	Technical Harmonization Committee
THTU	Tanzania Higher Learning Institutions Trade Union

TBS	Tanzania Bureau of Standards
TFNC	Tanzania Food and Nutritional Centre
TIB	Tanzania Investment Bank
TANROADS	Tanzania National Roads Agency
TANESCO	Tanzania Electric Supply Company Limited
UDOM	University of Dodoma
UDSM	University of Dar es Salaam
UPS	Uninterruptible Power Supply
USA	United State of America
USAID	United States Agency for International Development
UK	United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural Organization
UCSF	University of California at San Francisco
VC	Vice Chancellor
VoIP	Voice Over Internet Protocol
WHO	World Health Organization

Members of the University Council

The Council members of Muhimbili University of Health and Allied Sciences, who served during the year ended 30th June, 2015 are:

SN	NAME	STATUS/TITLE
1.	Hon. Deogratias A. Ntukamazina (MP)	University Council Chairman
2.	Hon. Zarina S. Madabida (MP)	University Council Vice Chairperson, Appointee of the Convocation
3.	Prof. Ephata Kaaya	Member, Vice Chancellor
4.	Prof. Joseph Kuzilwa	Member, Appointee of the CVCPT
5.	Dr. Gozbert Mutahyabarwa	Member, Appointee of the Minister, MoHSW
6.	Dr. Mohamed S. Jiddawi	Member, Appointee of the Revolutionary Government of Zanzibar
7.	Dr. Jonathan S. Mbwambo	Member, Appointee of the Minister, MoEVT
8.	Hon. Dr. Maua Daftari (MP)	Member, Appointee of the Parliament
9.	Hon. Beatrice Shelukindo (MP)	Member, Appointee of the Parliament
10.	Ms. Irene Kasambala	Member, Appointee of the Minister, Ministry of Finance
11.	Prof. Veronica Mugoyela	Member, Appointee of the Senate
12.	Dr. Ellison Simon	Member, Appointee of the Senate
13.	Dr. Mabula Mchembe	Member, Representative of the Academic Staff Assembly (MUASA)
14.	Dr. Febronia Kahabuka	Member, Representative of the Gender Dimension Committee.
15.	Dr. Method R. Kazaura	Member, Representative of Workers Union (THTU)
16.	Dr. Marina Njelekela	Member, Executive Director, MNH
17.	Mr. Mathew Mandawa	President, MUHASSO
18.	Mr. Adamu Likiliwike	Vice President, MUHASSO

University Management



Prof. Ephata Kaaya
Vice Chancellor



Prof. Eligius Lyamuya
**Deputy Vice Chancellor – Academic,
Research and Consultancy**



Prof. Muhammad Bakari
**Deputy Vice Chancellor – Planning,
Finance and Administration**

Foreword

The Year 2014/2015 was another remarkable for the University as it marked the first year of the implementation of its new Five Years Rolling Strategic Plan (2014/15-2018/19). Despite human resource and financial constraints, the review of the implementation of the first year of the strategic plan was successful with most units registering major achievements.

The university continued to implement its competence-based academic programmes and developed new programmes that address the need for human resource for health in the country. The university efforts to offer relevant academic programmes and impart necessary skills to enhance employability continued to make our University the number one choice for health related disciplines.

In 2014/15, a total of 262 postgraduate students were admitted in the first year in various programmes. This seemingly large number of students' admission however, has not scratched the surface of the University capacity for postgraduate training. External factors particularly lack of sponsorship has been the main deterrent for increased admission.

Excellent student academic performances were realized during the reporting period with increased student outputs. For example, a total of 372 diploma students graduated during the reporting period, an increase of 41% compared to the year 2013/14. Moreover, undergraduate students who were conferred their degrees increased by 42% (375 in 2014/15 compared to 111 in 2013/14).

During the reporting period, the university maintained its leading edge in research publication in the country. A total of 308 journal articles, 168 Dissertations, 17 Conference proceedings and 2 book/research reports were published. This achievement is based on the university's efforts to promote research and innovation as one of its core function. The university had 113 ongoing research projects and five new international collaborative projects were initiated during the reporting period.

Construction of the MUHAS Academic Medical Centre (MAMC) at Mloganzila was on schedule to be completed in June 2016. Maintenance of existing infrastructure to provide conducive environment for the core functions of the University were undertaken depending on the availability of funds.

Collaborative efforts among staff and effective leadership at all levels contributed to achievements scored during the year and I wish to congratulate all staff for working efficiently and diligently and for their contribution in the successful implementation of the University core functions.



Prof. Ephata E. Kaaya
Vice Chancellor

1.0 Introduction

This is the eighth MUHAS Annual report, which describes progress in the implementation of the annual planned activities as described in the MUHAS Strategic Plan for the period 2014/2015 – 2018/2019. It highlights progress made in the core functions of the University, student and human resources affairs, achievements and special events from Schools, academic Institutes and Directorates. It summarizes the University's research activities and programmes, consultancy and public services undertaken by the various units.

During the year 2014/2015, the University continued to make progress towards the achievement of its vision and mission through implementation of various development projects, expanding student enrollments, improving quality of research and teaching, and increasing stakeholder's engagement. Progress in the construction of the Academic Teaching Hospital at the Mloganzila Campus has been remarkable with the completion expected in June 2016.

MUHAS has now completed the construction of the building for Centre for Health Professions Education (CHPE), which will, among other things, play a major role in housing the Directorate in charge of promoting Continuing Education and Professional Development. The university will strive at strengthening the health sector by providing quality demand driven continuing education and profession development of health personnel at all levels of the health system.

Moreover, due to declining government subvention and the increasing demand for financial resources to fund the core functions of the university, during the reporting period, the university initiated various plans to be able to improve its investment portfolio. These plans include valuation of its properties for investment purposes, procurement of a consultant for a feasibility study to inform the establishment of MUHAS Holding Company and MUHAS insurance Broker.

2.0 Vision, Mission and Functions of the University

2.1 Vision

A university excelling in quality training of health professionals, research and public services with conducive learning and working environment.

2.2 Mission

To provide quality training, research and services in health and related fields for attainment of equitable socio-economic development for the Tanzanian community and beyond.

2.3 The Functions

The functions and activities of the University are guided by the following components: -

- (i) To provide in Tanzania a place of learning, education, research in health and allied sciences
- (ii) To be the main producer of key policy makers, experts and personnel in the health sector.
- (iii) To be a catalyst in the health sector reforms through conducting relevant research and educating the public in health related issues
- (iv) To prepare students through regular and professional courses in the fields of health and allied health Sciences for degrees, diplomas, certificates and other awards of the Muhimbili University of Health and Allied Sciences.
- (v) To contribute to the intellectual life of Tanzania, to act as a focal point for its cultural development and to be a center for studies, service, and research pertaining to the interests of the people of Tanzania.

2.4 Schools Institutes and Directorates

The University has five Schools, two Institutes, and Twelve Directorates as follows: -

2.4.1 Schools

- (i) School of Medicine
- (ii) School of Dentistry
- (iii) School of Pharmacy
- (iv) School of Nursing
- (v) School of Public Health and Social Sciences

2.4.2 Institutes

- (i) Institute of Allied Health Sciences
- (ii) Institute of Traditional Medicine

2.4.3 Directorates

- (i) Directorate of Planning and Investment, Muhimbili Campus
- (ii) Directorate of Planning and Investment, Mloganzila Campus
- (iii) Directorate of Postgraduate Studies
- (iv) Directorate of Research and Publications
- (v) Directorate of Information and Communication Technology
- (vi) Directorate of Library Services
- (vii) Directorate of Continuing Education and Professional Development
- (viii) Directorate of Undergraduate Education
- (ix) Directorate of Quality Assurance
- (x) Directorate of Finance
- (xi) Directorate of Human Resources Management and Administration
- (xii) Directorate of Estates

3.0 Teaching and Learning

3.1 Academic Programmes

The University continues to lead the park in the country through the provision of a wide range of academic programmes and the best academic staff profiles in the field of Health and Allied Sciences in Tanzania. High priority is given to quality programmes development, delivery and students outcomes. Currently the University offers 87 academic programmes, which include 10 Diploma programmes, 14 Undergraduate programmes and 63 Postgraduate programmes.

3.2 Student Admissions

3.2.1 Diploma Programmes

During the reporting period 441 new students were admitted in various MUHAS diploma programmes. Of the total, 297 were males and 153 were females. This makes the proportion of newly admitted female students to be 34.7%

The total enrolment of Diploma students was 1034; of these 563 were males and 316 were females; whereby, 155 were enrolled in the other three campuses, namely; KCMC, Mpwapwa and Tanga. Figure 1 reflects admission trends for diploma students during the past five years.

There was a slight decrease of students admitted in 2014/2015 (441) compared to 450 students admitted in previous year (2013/2014)(Figure 1).

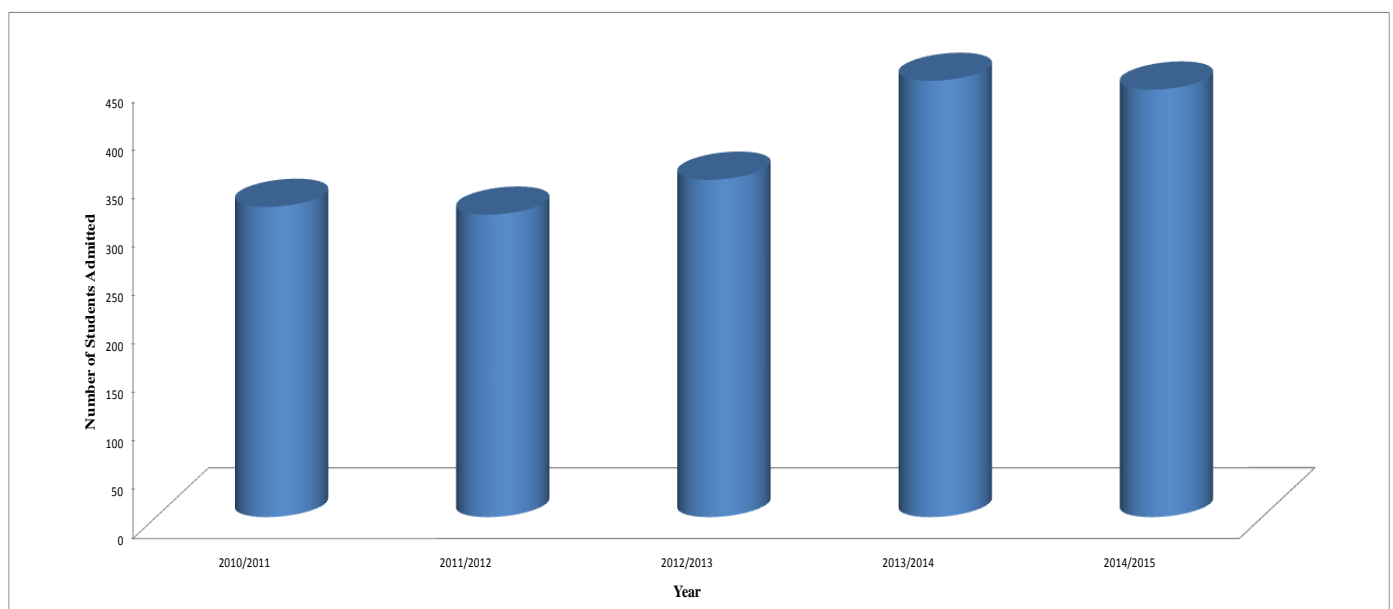


Figure 1: Trend in Admission of Diploma Students during the Past Five Years (2010/11–2014/2015)

3.2.2 Undergraduate degree programmes

During 2014/2015 academic year (Figure 2) the number of selected applicants into all undergraduate programmes was 605, which is a 34.4% increase compared to 450 students admitted during the year 2013/2014. For the past three years, there has been a slight decrease in undergraduate admission. However, the growth pattern has been fluctuating. For instance, during 2011/2012, 426 students were admitted which was an increase of 84(24.5%) students compared to 342 students admitted in the year 2010/2011. During the academic year 2013/2014, MUHAS enrolled a total number of 1926 students into various degree programmes. Of these, 30.3% (584) were female students. The MUHAS target for female student enrollment in undergraduate programmes is 50% as per Five Year Rolling Strategic Plan (FYRSP) (2014/2015 to 2018/2019).

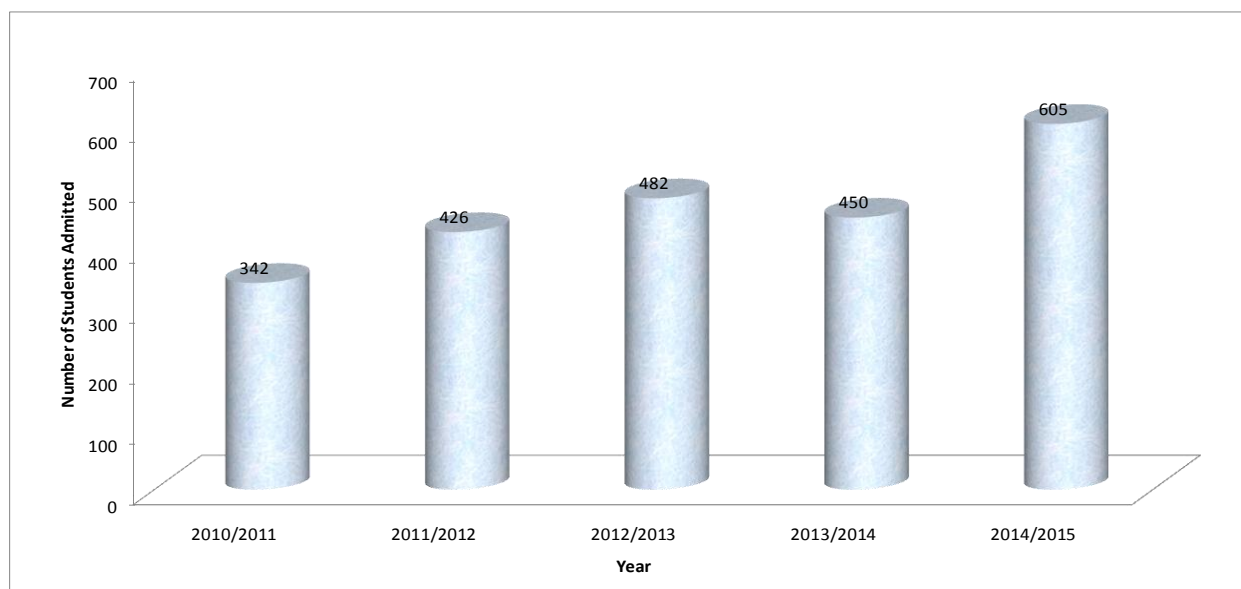


Figure 2: Trend in Admission of Undergraduate Students during the past five years (2010/2011 – 2014/2015)

3.2.3 Postgraduate Programmes

During the reporting period 262 postgraduate students were admitted in various postgraduate programmes of which 143 were males, and 119(45.4%) were females. The enrolment rate remained the same compared to the previous year (2013/2014) during which 262 students were admitted. However, for the past four years there has been a remarkable increase in the number of postgraduate students admitted into various programmes, for example in 2010/2011, 201 postgraduate students were admitted compared to 262 students (20.3% increase) admitted in 2014/2015 (Figure 3).

The postgraduate enrollment was 573 students, which depicts an increase of 24.6% students compared to the previous year whereby 460 postgraduate students were enrolled. The main obstacle to enrolment for qualifying applicants has consistently been due to lack of sponsorship.

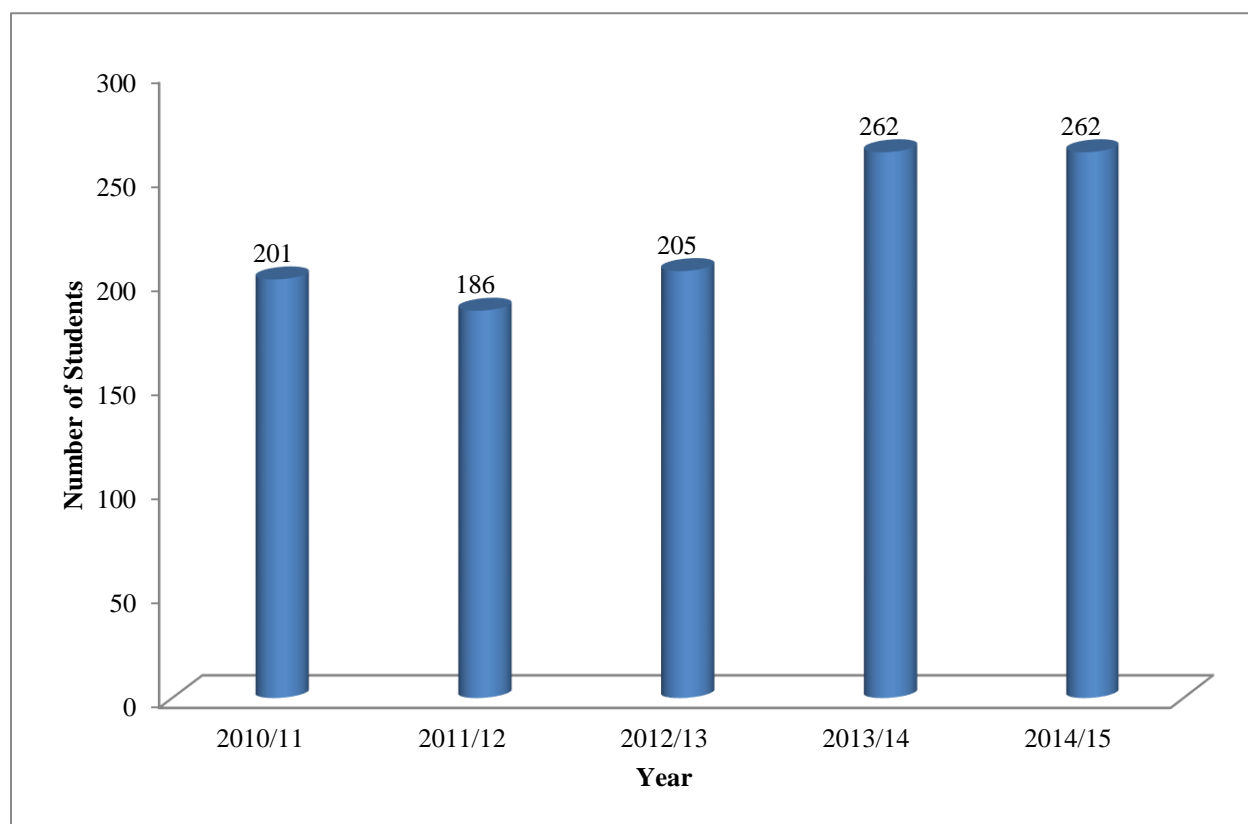


Figure 3: Trend in the Admission of Postgraduate Students during the past five years (2010/2011 – 2014/2015)

3.3 Student Enrollment during the Past Five Years (2010/2011 – 2014/2015)

3.3.1 Diploma Students

During the reporting period, 1034 diploma students were enrolled in various MUHAS diploma programmes compared to 835 students enrolled in the year 2010/2011. For past four years there has been a notable increase in diploma student enrollment. For instance, during the reporting period there was a slight increase in enrollment from 1003 in 2013/2014 to 1034 in 2014/2015 (3.1% increased enrollment).

3.3.2 Undergraduate Students

The number of students enrolled during 2014/2015 into all undergraduate programmes was 1926, an increase of 489(34.0%) compared to 1437 students enrolled in 2010/2011(Figure 4). During the reporting period, 584(30.3%) of the total students enrolled were females compared to enrollment of 411(28%) female students in 2011/2012 showing an improvement and an achievement towards the MUHAS strategic plan for gender mainstreaming.

3.3.3 Postgraduate Students

The number of postgraduate students has been consistently increasing from 2010/2011 to 2014/15. During the reporting period 553 students were enrolled in various postgraduate programmes. Unlike undergraduate students, the admissions of postgraduate students have been increasing over time. During the period under review there was a 36.9% increase in enrolment compared to the year 2010/2011 whereby 404 students were enrolled. This significant increase may be due to the increased awareness of the postgraduate programmes and desire of professional development as previously observed (Figure 4).

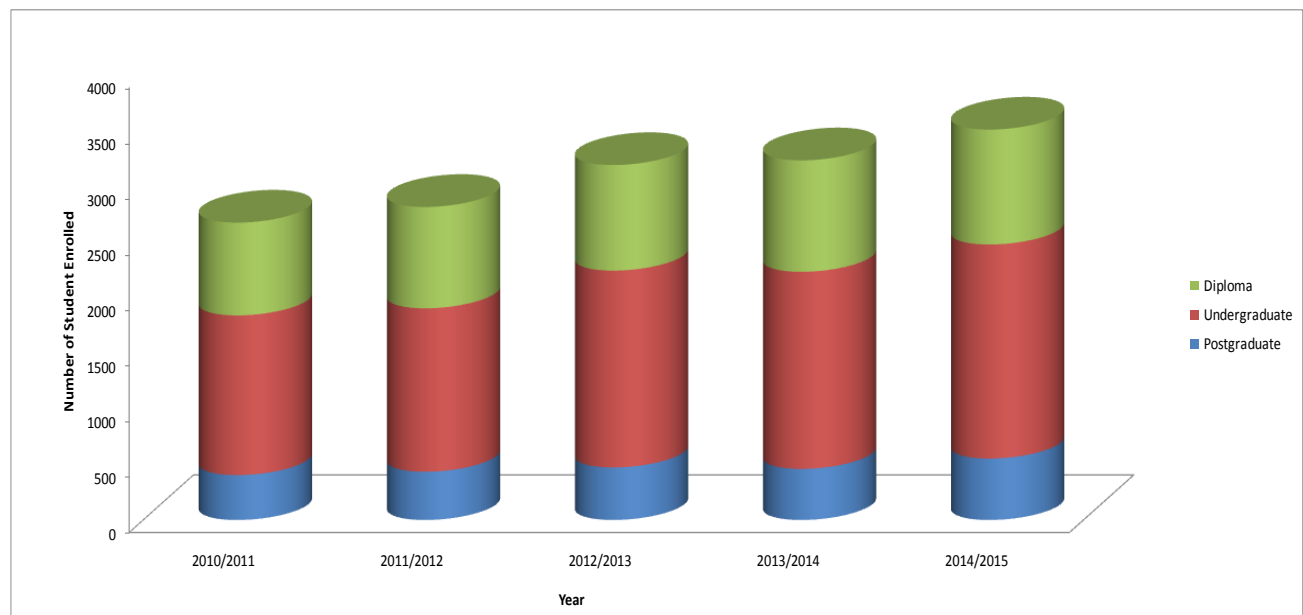


Figure 4: Trend of Enrolled Diploma, Undergraduate and Postgraduate Students during the past five years (2010/2011 – 2014/2015)

3.4 Examinations Performance in 2014/2015

3.4.1 Diploma Programmes

Figure 5(a) shows the level of performance of diploma students who sat for examinations during the reporting period. The results indicate that out of 1073 students who sat for examinations, 745(69.4%) passed at first sitting. For those who did not pass at first sitting, 152 (14.2%) were referred to do supplementary examinations, 167(15.6%) students had their examination results withheld and four (4) students were discontinued.

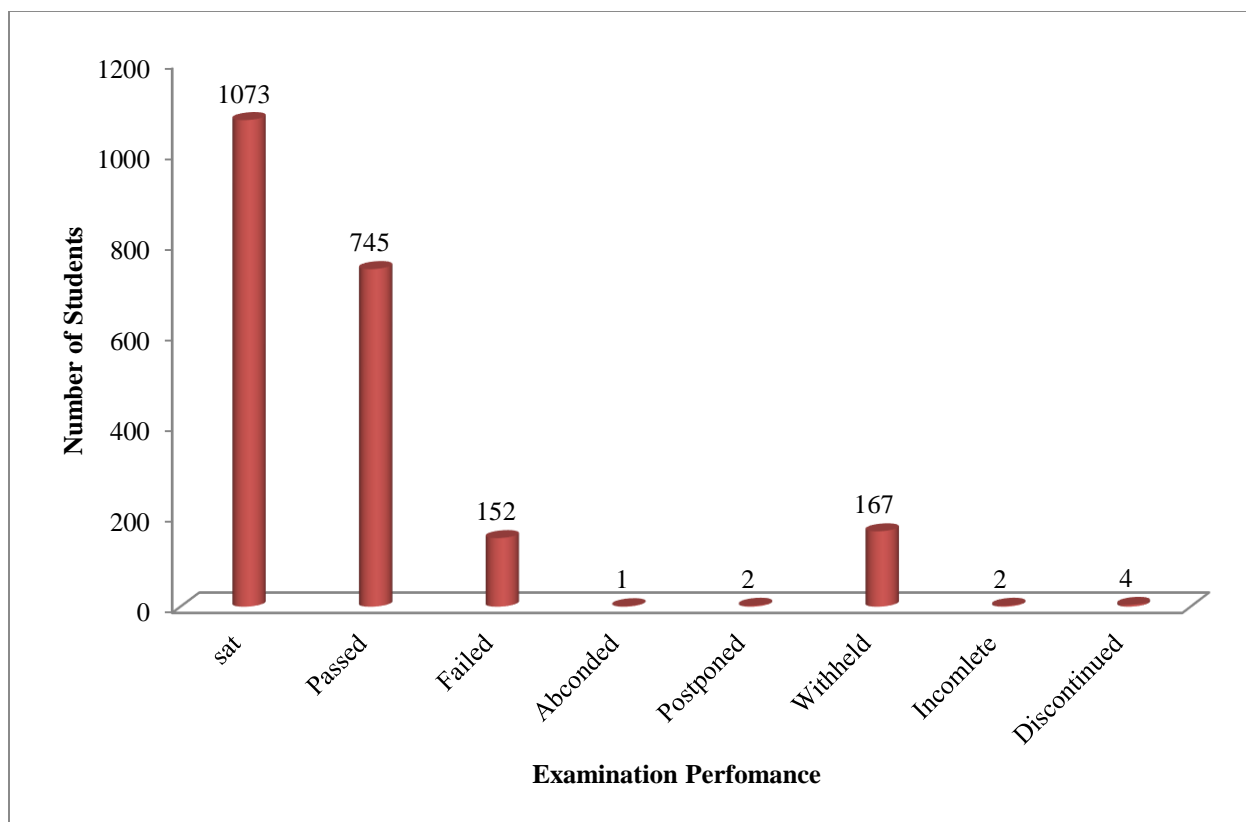


Figure 5 (a): Diploma Programmes Examination Performance during the year 2014/2015

3.4.2 Undergraduate Degree Programmes

During the reporting period, 1936 students in undergraduate degree programmes sat for examinations. The results indicate that, 1314 (67.9%) passed at first sitting. Of those who did not pass during the first sitting 580(29.9%) students failed and were referred to do supplementary examinations and forty-two (42) students had incomplete results (Figure 5(b)).

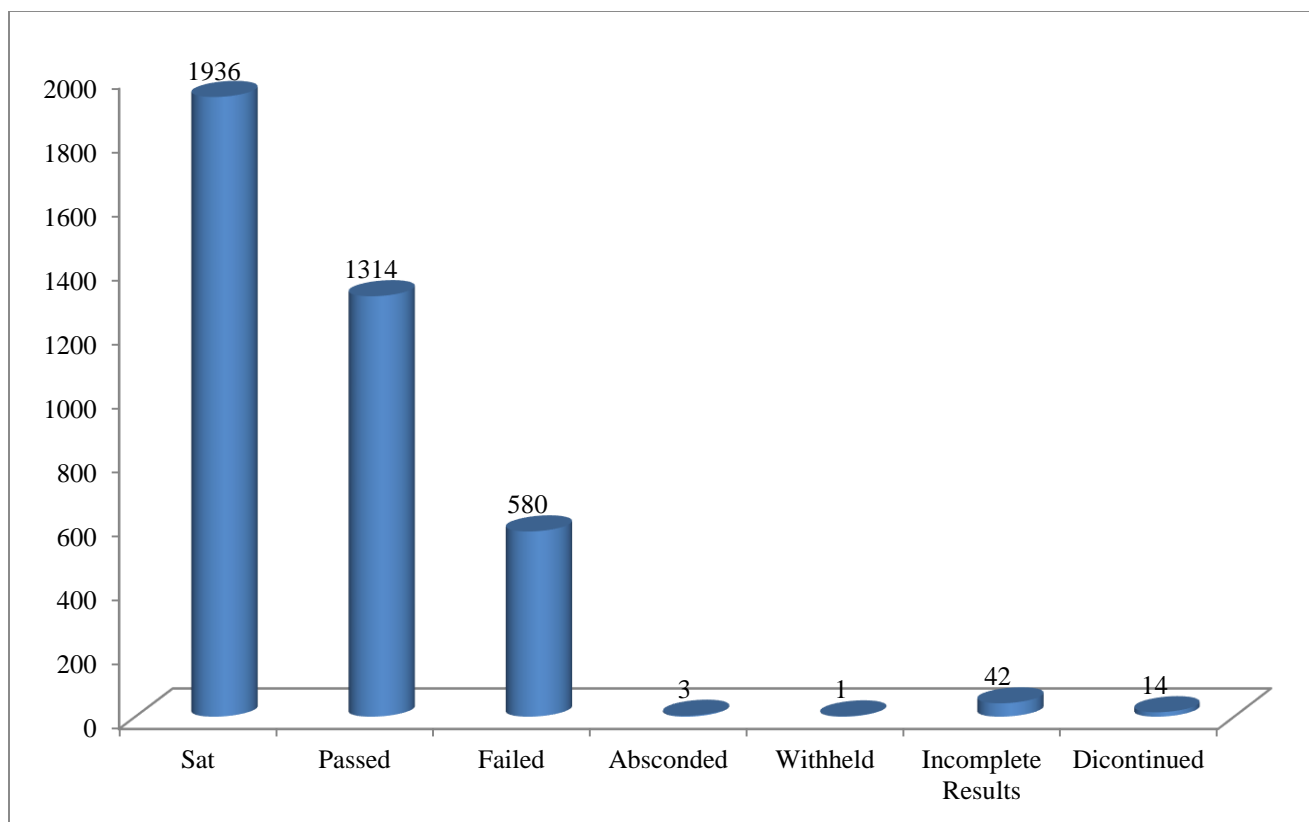


Figure 5(b): Undergraduate Programmes Examination Performance during the year 2014/2015.

3.4.3 Postgraduate Programmes

The Directorate of Postgraduate Studies through the Senate Higher Degrees Committee (SHDC) processed University Examination results as follows: -

A total of 476 postgraduate students sat for the University examinations in July 2015. Among those who sat for the examination, 346 (72.7%) passed their examinations and 94 were referred to supplementary. Nine (9) students were discontinued; twenty-seven (27) had incomplete results. (Figure 5c).

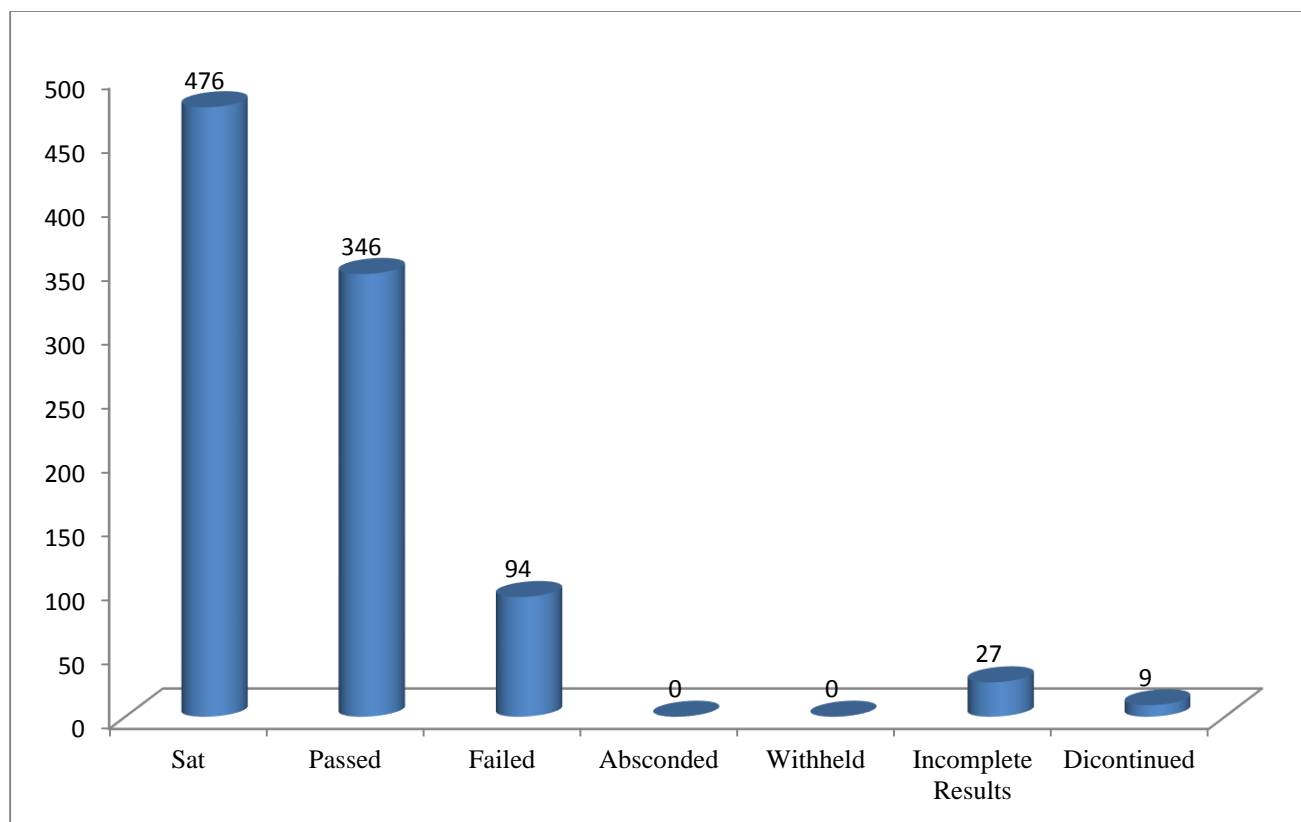


Figure 5(c): Postgraduate Programmes Examination Performance during the year 2014/2015.

3.5 Student Output

3.5.1 Diploma Programmes

During the period under review 372 diploma students completed their studies and the number of qualifying candidates increased by 108 (40.9%) compared to the year 2013/2014. Figure 6 shows the trend of students awarded diploma and certificates over the past five years (2010/2011-2014/15). There has been a gradual increase in the number of qualifying candidates. For instance, in the year 2010/2011, 202 students graduated and there has been consistent increase in graduating students until it reached 372 graduates in the year under review.

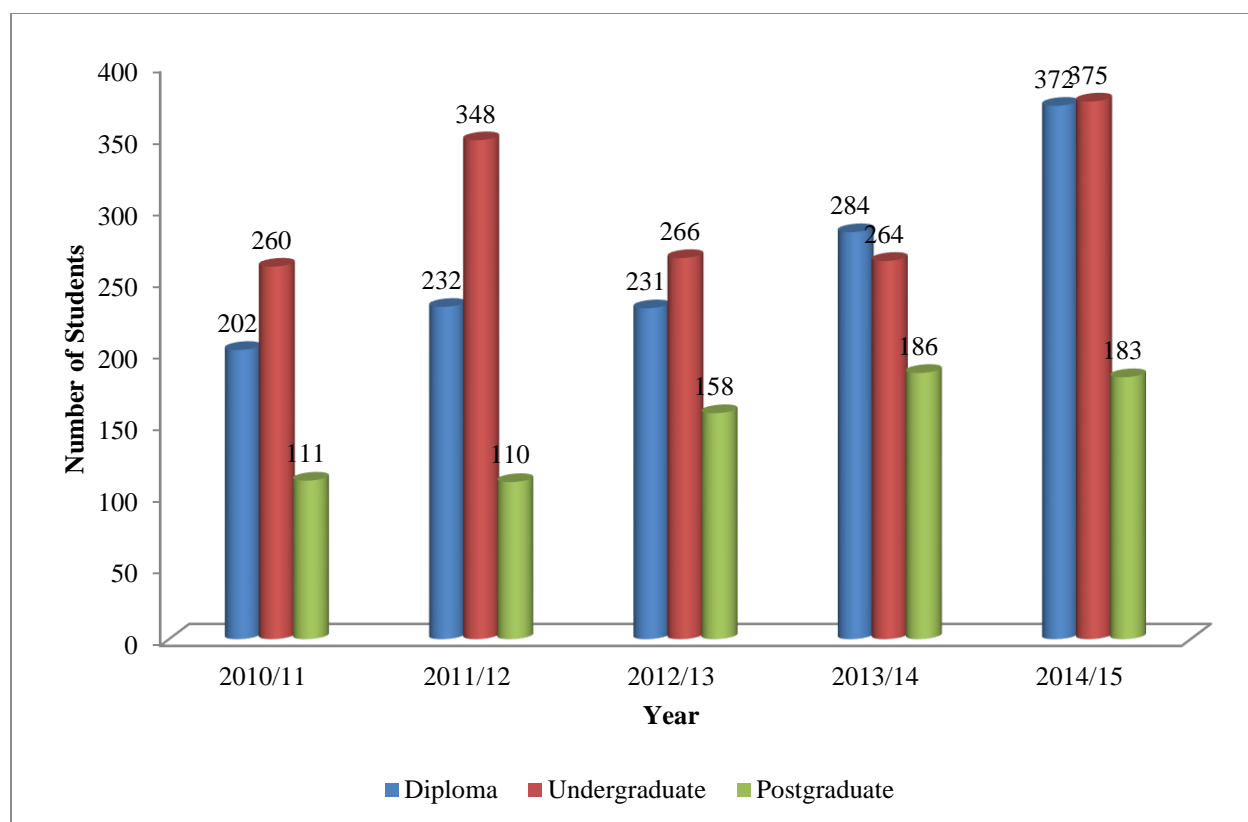


Figure 6: Trend in the Output of Diploma, Undergraduate and Postgraduate Programmes During the Past Five Years (2010/2011 – 2014/2015).

3.5.2 Undergraduate Degree Programmes

The number of graduates during the reporting period (2014/15) was 375 and the number of qualifying candidates increased by 111 (42%) compared to the year 2013/2014. Of the total undergraduate students graduated during the reporting period, 33.3% were female.

3.5.3 Postgraduate Programmes

During the reporting period, a total of 183 students graduated indicating a slight decrease in number of qualifying candidates by 3(1.6%) compared to the year 2013/2014. Of the total graduated postgraduate students, 38.3% were female.

3.6 Graduation Ceremony 2014

During the reporting period MUHAS marked its 8th graduation ceremony on 6th, December 2014 during which a total of 743 graduates were awarded degrees and diplomas as follows: Three hundred seventy-two (372) diplomas, and 375 first degrees in MD, DDS, BPharm, BSc. Nursing, BScN Midwifery, BScN Management, BSc. Environmental Health Sciences, BMLS and BSc. RTT.

With regards to postgraduate students, 196 were awarded degrees as follows: - Doctor of Philosophy (1), Master of Science Super-Specialists (10), Master of Medicine (80), Master of Science in Parasitology and Entomology (1), Master of Science in Epidemiology and Laboratory (5), Master of Science in Applied Epidemiology (5), Master of Science in Tropical Disease Control (2), Master of Science in Nursing Critical Care and Trauma (4), Master Science in Traditional Medicine (2), Master of Science in Clinical Psychology(3), Master of Science by Research (2), Microbiology and immunology (2), Master of Science in Health Systems(1), Master of Science in Clinical Pharmacology (3), Master of Science in Biochemistry (3), Master of Science in Anatomy (1), Master of Pharmacy Quality Assurance and Quality Control (1), Master of Pharmacy Hospital and Clinical Pharmacy (4), Master of Science Pharmaceutical Management (6), Master of Dentistry (6) and Master of Public Health (43).

During the reporting period the number of female graduates was 363 (64%) compared to the previous year whereby 270(36.8%) female students graduated. There was a significant increase of 27.2% in female graduates during the reporting period (Figure7).

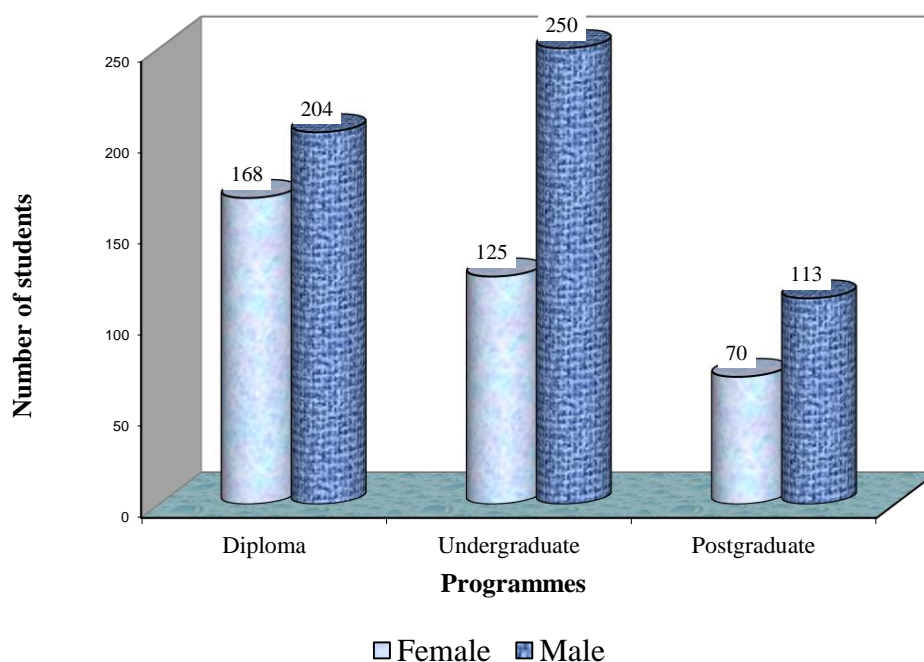


Figure 7: Diploma, Undergraduate and Postgraduate Graduates by Sex (2014 Graduation Ceremony)

4.0 School of Medicine

4.1 Introduction

This is the annual report for the year 2014/2015. It presents a summary of events and activities that took place in the School of Medicine (SOM), from 1st July, 2014 to 30th June, 2015. In short the report summarizes student's registration for undergraduate and postgraduate students. It also indicates the student output (i.e. graduates) of the 2013/2014 academic years. Furthermore, the report presents information on research outputs and collaborative links with both local and international institutions. And finally it presents a summary of governance issues of importance in the School, including students' registration, teaching and assessment, research, service and consultancy and summary of governance issues in the School.



Prof. S. Kaaya

Vision

To become a SOM with a national, regional and international reputation for excellence in education, research and service provision

Mission

The sustained pursuit of excellence in medical education, research and public service for the health, welfare and development of the people of Tanzania and beyond

4.2 Student Registration

MD (Doctor of Medicine) Programme

A total of 780 continuing medical students (from the 2nd to 5th year of training) registered in addition to 214 newly registered first year students; the latter is an increase from last year of newly recruited students. Thus the total number of students registered for the Doctor of Medicine (MD) programme was 994. This was an overall 2% increase (4% for new students) on the previous year when 768 continuing students and 206 new students were registered.

BMLS (Bachelor of Medical Laboratory Sciences) programmes and the BSc RTT (BSc Radiotherapy Technology) programme

During the reporting compared to the previous year there was a 121% (104 Vs 47 in 2013/14) increase in newly registered first year students for the six Bachelor of Medical Laboratory Sciences (BMLS) programmes and 400% (16 Vs 4 in 2013/14) for the Bachelor of Science Radiotherapy Technology (BSc RTT) programme. In total 104 new and 75 continuing BMLS students were

registered; and 19 new and 12 continuing BSc RTT students. In terms of continuing students, during this reporting period compared to the last, the School saw a 46% (75 Vs 46 in 2013/14) for BMLS and an 80% (3 versus 15 in 2013/14) reduction for BScRTT students. The BMLS programmes hence had a total of 179 registered students and the BSc RTT programme had 19 students. Table 1 shows a summary of registered students during the reporting period: -

Table 1: Summary by programme and sex of registered students during the reporting period 1st July, 2014- 30th June, 2015

Programme	Male N (%)	Female N (%)	Total N
MD	735 (73.9)	259 (26.1)	994
BMLS Clinical Chemistry	9 (47.4)	10 (52.6)	19
BMLS Haem and Blood Transfusion	36 (70.6)	15 (29.4)	51
BMLS Histotechnology	17 (68.0)	8 (32.0)	25
BMLS Microbiology Immunology	14 (66.7)	7 (33.3)	21
BMLS Parasitology & Entomology	23 (54.8)	19 (45.2)	42
BMLS General	14 (66.7)	7 (33.3)	21
BSc RTT	24 (77.4)	7 (22.6)	31

Generally, fewer females across programmes were registered for the BSc RTT and MD programmes (22.6% & 26.1% respectively), with the highest proportion of total registered to the programme being females for BMLS clinical chemistry. At the end of the registration period, the school had a total of 1,204 students across its eight (8) undergraduate programmes, an 11% increase compared to the previous academic year when 1,086 students were registered across programmes.

4.3 First year student's orientation: The white coat ceremony

During the reporting year, the School of Medicine organized the 5th Annual White Coat Ceremony, to welcome first year MD, BMLS and BSc RTT programme students to the University Community. During the ceremony, the Dean, faculty and selected student leaders, informed new entrants of experiences, professional and ethical standing of their selected professions. The event was held on Friday 17th October, 2014.

4.4 Teaching and Assessment of Students

Competency Based Education Curricula Implementation (CBEC)

During the reporting year, the school continued implementing competency-based education curricula, for both undergraduate and postgraduate programmes. For the second year running, the

school implemented its junior clinical rotations for all MD students in their third year of training in relevant clinical departments.

Though challenging, departments were successful in completing the competency-based rotations concurrently with senior rotations in semesters 7-8 and 9-10 for students phasing out the traditional curriculum. With an increased number of rotating students, the challenge was overcrowding of students in the wards. Many departments addressed this challenge by breaking students into smaller groups and assigning supervisors to each group at the level of the firms in clinical departments. Adjunct and clinical staff in our teaching hospitals; Muhimbili National Hospital (MNH) and Muhimbili Orthopedics Institute (MOI) who engaged in this process are part of the reason for successful implementation.

The class of 2010/11, which graduated during the reporting period, was the last of the traditional curriculum; hence the class of 2011/12 was the highest class implementing the CBE curriculum and was in its 4th year at the time of this report. In order to assess differences/similarities in students implementing the traditional and the CBE curricula, 4th year students of both were compared on retention measures and performance using amongst other GPA as a comparator as shown in Table 2: -

Table 2: Comparison of students implementing Traditional and Competence-Based Curricula by retention and performance measures

Parameters assessed	Students Year of Registration	
	2010/12 (Traditional curriculum)	2011/12 (CBE curriculum)
Number registered 1 st year	195	204
Number sat Final 4 th year (% retained)	189 (97.0)	187 (91.7)
Failure rate (% failed/sat exam)	1.6	1.6
# Incomplete results (% incomplete)	7 (3.7)	2 (1.0)
Mean GPA	2.84	3.56
Highest GPA attained	3.8	4.6
Number GPA \geq 3.8 (%)	2 (1.0)	73 (39.0)

In rates of retention and failed final examinations in the 4th year of study, students implementing the two curricula did not differ much. However, CBE curriculum students, were more likely to complete all examination, had higher mean GPA scores, scored higher on GPA and more than a third (39%) compared to only 1% scored a 4th year overall GPA of 3.8 or higher; a criteria used for recruitment of academic staff.

Teaching

Teaching during the year continued as scheduled for both undergraduate and postgraduate students. For undergraduates, courses in semesters one to eight were competency based modularized, as did postgraduate courses in Semesters one to six. The year saw the completion of introducing the competency-based education at these levels in undergraduate and postgraduate programmes and the phasing out of the traditional curriculum for MD (semester 9-10) program.

In the academic year, a major challenge to teaching was caused by an expanded intake of first year students due lack of sufficient number of staff and inadequate infrastructure (lecture and teaching laboratory rooms) to accommodate lecture and practical sessions shared between the MD, BMLS, and BSc RTT and other programmes taught across Schools at MUHAS. This challenge was addressed by fast-tracking an ongoing process of customizing biomedical science courses jointly taught in the MD, BMLS, and BSc RTT programmes and the Bachelor of Nursing (BScN – School of Nursing), Doctor of Dental Surgery (DDS – School of Dentistry), Bachelor of Pharmacy (BPharm-School of Pharmacy), and Bachelor of Science Environmental Health Sciences (BSc EHS-School of Public Health and Social Sciences) programmes. Staff taught two-split groups in a morning (MD, DDS, and BPharm) and evening (BMLS, BSc RTT, BScN and BSc EHS) session. The extra time required to do so, meant an extra four hours to an 8-hour working day for the teaching faculty and technical staff. The University management had to remunerate both academic and technical staff for this extra effort. In the coming years the University will seek for alternative strategies to avoid teaching double sessions and especially after 17.00hours.

Examinations/Assessments

During the year continuous assessment tests were held as planned in the different programmes and departments and on-going formative assessment of core competencies acquired assessed as planned by each implementing department. End-of-module university examinations were held as per scheduled at the end of each module.

MD Programme: In Semester one and two, 214 students sat for examinations, 74.5% passed at first sitting, 22.4% failed one or more modules; and 3 had incomplete results. In semester three and four, 200 sat for examinations, 60% passed at first sitting while 35% failed and 10 had incomplete results. Clinical students of Doctor of Medicine from Semester five and six (third year) to semester nine and ten (Finalists) did their end of rotation University Examinations as scheduled. In Semester five and six 198 sat for examinations, 89.4% passed at first sitting, failure rate was 9.3% and two students had incomplete clinical rotations. In the intermediate clinical rotations (Semester seven and eight), 186 sat for examinations, 86% passed, failure rate was 12% and 5 had incomplete rotations. In the senior rotations, Semester nine and ten, 189 sat for examinations, 94.2% passed, failure rate was 2.6% and 6 did not complete the examinations. End of module university examinations (coinciding with the last clinical rotation examinations in the 3rd (semester 5-6) to fifth year

(semesters 9-10)) were held from 2nd to 13th March 2015. Moderators were appointed to oversee the examination in collaboration with internal examiners; and were also involved in assessments using predeveloped tools. Faculty verified and processed examination results, uploading them into SARIS. Results were subsequently electronically presented and endorsed at a School Board meeting held from 24th to 26th March 2015. Disposal of students was deferred to when results could be compiled at the end of the audit year in August 2015. A total of 617 undergraduate students and 257 postgraduate students sat for the examinations in various programmes.

BMLS programmes: In semester one to six the total number of students who sat for examinations, passed and failed are shown in the tables 3 and 4 below. Pass rates ranging between 16% and 100% were noted with higher pass rates in the third compared to first and second years of the programmes.

Table 3: Summary performance BMLS Programmes

Parameters	BMLS Programmes								
	Clinical Chemistry			General			Haematology BT		
Year	1	2	3	1	2	3	1	2	3
Number sitting examination	13	6	--	32	16	--	9	7	9
Pass rate %	46	16	--	50	25	--	44	57	88
Failure rate %*	53	83	--	50	75	--	55	42	11
Incomplete rate %	0	0	--	0.03	0	--	0	0	0

* Failed first sitting of the examination

While this state of low passes in the biomedical science courses in the first and second year has been an area of persistent concern in the School, such low pass rates have not been observed in programmes where similar subjects are taught such as the MD and DDS programmes. Higher entry requirements for these, compared to the BMLS programmes, may perhaps explain the differential pass rates. However, the need to further tailor the courses taught in the first and second years has also been recognized in order to increase their relevance for the BMLS programmes. This is an ongoing process that has shown a gradual improvement in mean GPA scores. For example, among 16 BMLS general first year students in 2013/14, the mean GPA was 2.4 (range 2.1 to 2.7) but in the reporting year, 33 first year BMLS general students scored a mean GPA of 2.8 (range 2.1 to 3.5).

Table 4: Summary performance BMLS Programmes

Parameters	BMLS Programmes								
	Histotechnology			Microbiology/ Immunology			Parasitology/ Entomology		
Year	1	2	3	1	2	3	1	2	3

Number sitting examination	12	2	7	22	7	13	15	4	2
Pass rate %	50	50	100	45	42	84	53	25	100
Fail rate %*	50	50	100	54	57	0.08	40	75	0
Incomplete rate %	0	0	0	0	0	0.08	0.06	0	0

* Failed first sitting of the examination

BSc RTT programme: In semester one to six a total number of 29 students who sat for examinations, passed and failed are shown in Table 5. Pass rates were particularly low in the second year, where approximately 50% of the four students sitting for the examinations passed. Failing students in all courses had an opportunity to sit for supplementary examinations that were offered in September 2015. Generally most of them passed the supplementary examinations as summarized below for the MD programme students.

Table 5: Summary performance BSc RTT Programme

Parameters	BScRTT Programme		
Year	1	2	3
Number sitting examination	17	4	8
Pass rate %	88	0	87
Fail rate %	11	100	12
Incomplete rate %	0	0	0

MD Supplementary Examinations: Supplementary examinations for the MD Programme for Semester 1 – 4 started on 16th September, 2014 and were completed on 29th September 2014. Semester 5 - 10 students in the MD programme completed supplementary examinations when clinical rotations were next offered. In the first year, 42 MD students sat for supplementary examinations, 83.3% passed and fail rate was 16.7% these students being scheduled for a carryover 2nd supplementary in the subsequent year. Sixty-five second year MD students sat for supplementary examinations, 87.6% passed with fail rate of 12.3%, these students being obliged to freeze the programme in order to meet progression rules from basic to clinical sciences, and are scheduled to supplement when the examination is next offered. In the 3rd, 4th and 5th years of study– 20, 19 and 53 sat for supplementary clinical rotations with pass rates of 85%, 94.0% and 92.0% respectively. Students failing supplementary examinations were recommended to re-sit when next offered, an option they had until the past or reached the end of their registration period. Similar procedures were followed for students supplementing courses in the BScRTT and BMLS programmes.

The School's Examiners followed by School Board were held to receive and give recommendations on the results for supplementing students in Semesters 1 – 10. The Boards sat on 1st October, 2014,

while two Extraordinary School Boards discussed results for supplementing clinical rotation (semester 5-10) students.

Graduation ceremony

Teaching and learning activities always culminate in a graduation ceremony. The graduation ceremony was held as planned in Decemebr 2014. During the reporting year, the MD class of 2010/2011, BMLS, BSc RTT and MMed classes of 2012/2013 and ordinary MSc and MSc Super Specialty class of 2013/2014 were conferred degrees. A slight increase in the numbers graduating with BMLS, BSc RTT and MSc SS in 2014/15 compared to 2013/14, and one PhD was conferred in this year (See Figure 1).

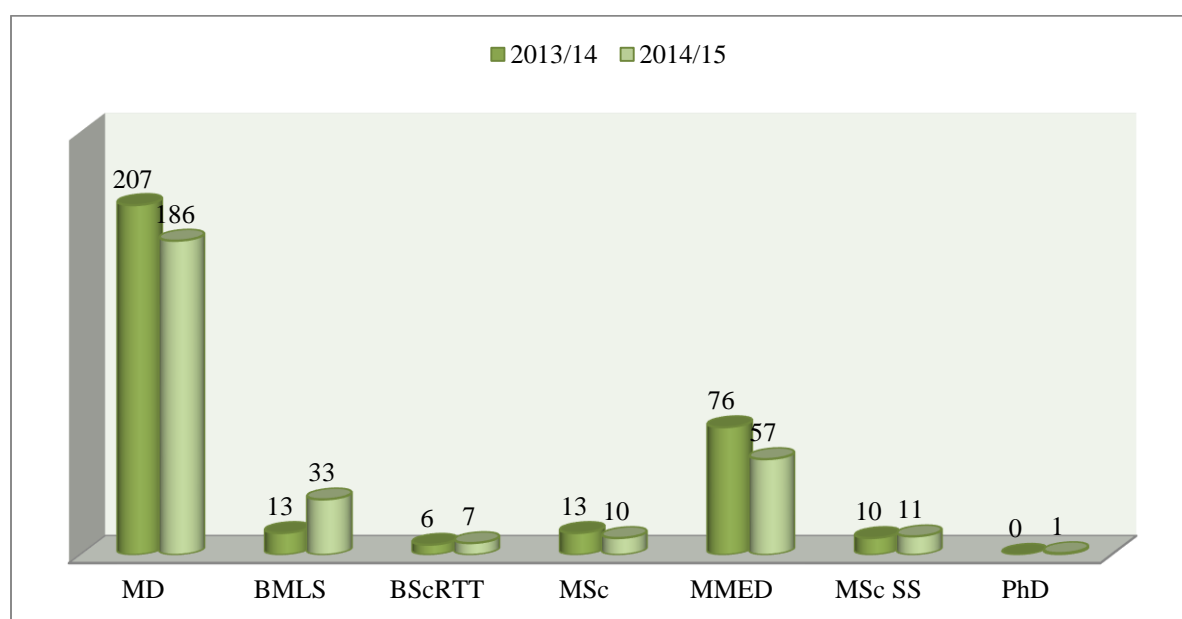


Figure 8: Number of graduates from various programmes for the year 2013/14 and 2014/15

4.5 Research

Supervision of Research Training

During the reporting period, the School's academic and adjunct staff continued to supervise research training for both undergraduate and postgraduate students. For undergraduate students, protocol development, research ethical clearance, data collection, summarization and report writing was supervised at department levels across the School of Medicine and School of Public Health and Social Sciences for 190 Semester 7 and 8 students undertaking the Elective Research Project (ME 400) course.

Supervision of postgraduate students' Master Dissertations was also undertaken for MMed and MSc programmes in respective semesters as per curricula. In this academic year, the abolished requirement of a dissertation for the MSc Super-Speciality programmes was implemented. Students were instead required to undertake a clinical audit to inform their practice and quality of care improvement. In-house staff training occurred for supervision of clinical audits with facilitators from both the School of Medicine and the School of Public Health and Social Sciences.

Staff research and publications

School teaching staff continued to conduct research in various projects. During the reporting period a total of **107** publications were retrieved from PUBMED in which members of the school published as co-author. These were divided in the four quarters of reporting periods as shown in the Table below: -

Number of Publications from the School of Medicine in 2015/15

SN	REPORTING QUARTER	NUMBER OF PUBLICATIONS
1.	July – September 2014	59
2.	October – December 2014	17
3.	January – March 2015	11
4.	April – June 2015	20
TOTAL		107

The publications in the reporting year represent on average of 0.89 publications per staff, which is an improvement on previous years but remains below the target of at least one publication per year per academic staff. The School will continue encouraging analyses and reporting of research findings including strengthening staff research seminars at department and school levels, and advocating for peer writing groups to support development of scientific writing skills.

Requests for research support

The School recommended through the Directorate of Postgraduate studies to the Directorate of Research and Publications, student requests for ethical clearance. Staff requests to the Directorate of Research and Publications for financial support for undertaking research projects were also processed. Feed-back from the Directorate of Research and Publications (DRP) indicated granting of ethical clearance for 10 staff initiated research projects and annual renewal of ethical clearance for 5 staff research projects.

Due to demands from gatekeepers in institutions and communities where undergraduate research activities were undertaken, student proposals during the reporting period were discussed at

department level and also evaluated for ethical clearance; a pre-developed research ethics clearance form was checked and submitted to the office of the DRP for formal ethical clearance certification.

Research and other Collaborations in the School

During the reporting year, the School established collaborations with five (5) institutions as follows:

- (a) The Norwegian University of Science and Technology (NTNU)
- (b) Uppsala University
- (c) The American Association of Medical College's Global Health Learning Opportunity (GHLO)
- (d) Finalized Memorandum of Understanding (MoU) with Bagamoyo District Council for clinical teaching of undergraduates and postgraduate placements
- (e) Signed MoU with Lugalo Military Hospital for clinical teaching of undergraduates and postgraduate placements.

Under these collaborations, MUHAS will exchange students and/or teaching staff with the relevant institution. Ongoing developments of memoranda of understanding for educational collaborations are in process with the CCBRT hospital and Aga Khan University both in Dar es Salaam.

4.6 Service and Consultancy

During this reporting year, teaching staff in the clinical departments of the school continued to provide clinical services at Muhimbili National Hospital, Ocean Road Cancer Institute and Muhimbili Orthopedics Institute as per agreed supplementary contracts with the respective institutions.

4.7 Governance issues in the School

Overview of academic staff in the School of Medicine

During the year under review (2014/15), the total number of academic staff in the SoM was 143; an increase of 18.2% from 121 staff reported in 2012/2013.

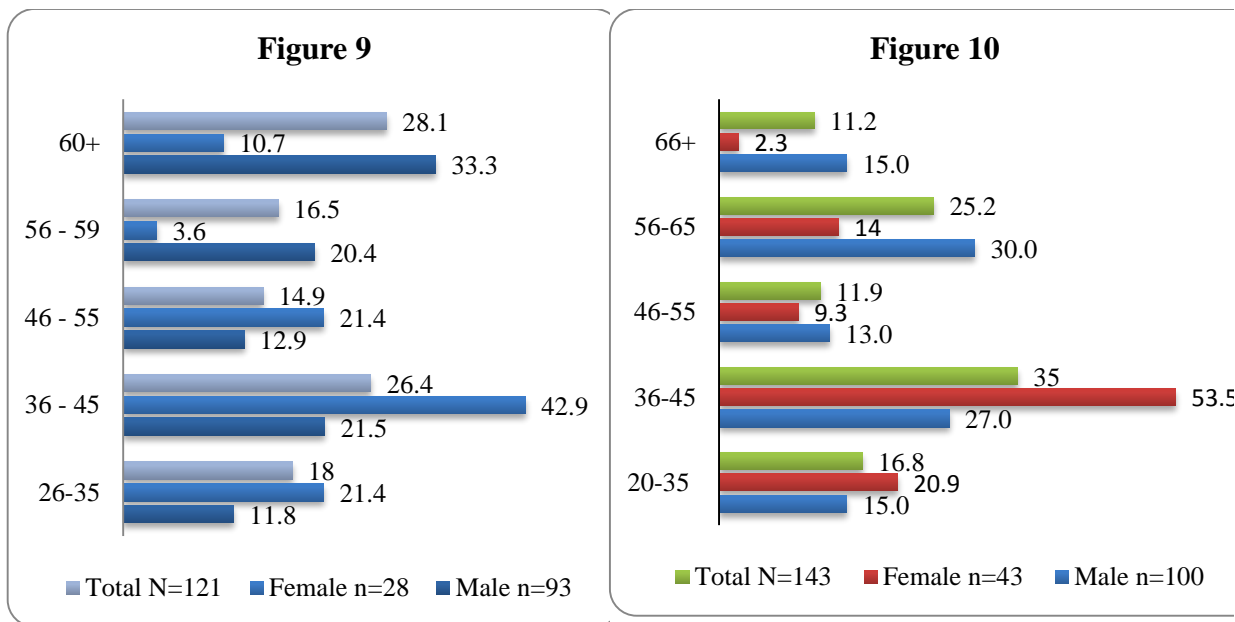


Figure 9 & 10: Staff distribution by Sex and Age in 2014/2015

The overall proportion of staff aged 55 years and below has increased to 63.7% from 59.3% in 2012/2013. The rate of increase by male staff aged 55 years and below rose from 46.2% in 2012/2013 to 55% in June 2015; while for females the rate decreased from 85.7% in 2012/2013 to 83.7% in 2014/2015 as summarized in Figures 9 and 10.

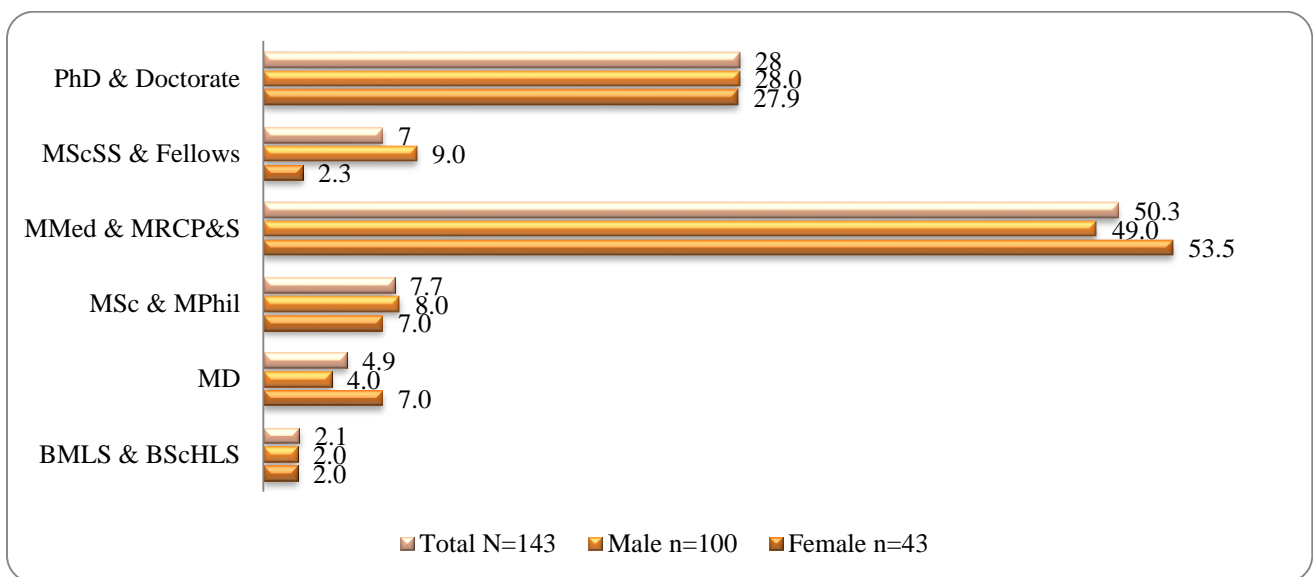


Figure 11: SoM Staffs highest qualification by sex

However, as shown in figure 11, during the triennium ending June 2015, there was an increase of seven percent (7%) of young faculty with basic degrees (n=10), evenly distributed by gender amongst new recruits with BMLS or BSc Health Laboratory Sciences (HLS) qualifications as well as 4% and 7% of male and female staff respectively holding an MD degree, compared to distributions in 2012/2013. This is in keeping with the goal of having junior staff as beneficiaries to the specialization and super specialization programmes offered at MUHAS. It is hoped that this trend amongst staff will continue, with young professionals hired, immediately undertaking specialization programmes in order to create, for the future, a vibrant team of middle level academic staff for the School. This will also increase the pool of potential PhD trainees.

While for most qualification levels the proportion of males and females did not vary significantly, data shows a need for departments to encourage female recruits to join clinical departments and undertake super specialty training. Of the 10 staff super specialists, with either an academic MSc SS or a professional qualification (Fellow), only one was a female.

Newly appointed academic staff During the Reporting Period by sex and level of training:

Of the 10 new staff employed since October 2014, nine were engaged during the reporting period. Their names, departments and highest level of qualification are indicated in Table 6.

Table 6: Newly appointed academic staff July 2014 to June 2015

SN	Name	Sex	Position	Department	Date of employment	Highest Qualification
1	M. A. Khalfan	M	Tutorial Assistant	Clinical Pharmacology	14/05/2015	MD
2	T. Njau	F	Assistant Lecturer	Psychiatry & Mental Health	08/03/2015	MSc
3	James J. Hayola	M	Tutorial Assistant	Biochemistry	08/03/2015	BLMS
4	K. Ndaki	M	Tutorial Assistant	Biochemistry	09/01/2015	BSc Mol.Biol. and Biotech
5	S. Kilindimo	M	Lecturer	Emergency Medicine	02/02/2015	MMed
6	Y. S. Mtali	M	Tutorial Assistant	Haematology& Blood Transfusion	04/01/2015	BSc HLS
7	A. Ngaiza	F	Tutorial Assistant	Anatomical Pathology	08/07/2015	MD
8	A. Saidi	M	Lecturer	Obstetrics and Gynecology	09/01/2015	MD, MMed
9	S. Kazia	F	Lecturer	Psychiatry & Mental Health	09/01/2015	MD, MMed
10	E. N. Assenga	F	Lecturer	Pediatrics	04/01/2015	MMed & MPH

The new additions to departments that struggle with understaffing is very welcome and reduces slightly the gap between staff that exists and staff needed in each of these departments. However, the summary in Table 7 showing staff: student ratios in 2013/14 and 2014/15 indicates a need to continue hiring as the ratio in some cases falls well below the TCU recommended 1 staff to 8-15 students; with lower ratios in the skills based clinical rotation teaching and learning. Particular concerns are for teaching in Anatomy, though there are problems for all biomedical sciences & laboratory medicine teaching. For clinical training, emergency medicine initiated an undergraduate rotation during the reporting period, creating in the process and change in student: staff ratio from 1: 3 to 1:53.

Table 7: Distribution of Academic Staff and estimated Student: Staff ratio in the School of Medicine 2014/2015

S/ No	Department	Number of staff 2014/2015	Number of impacted students 2014/2015			Student: Staff ratio 2014/2015	Student: Staff ratio 2013/2014
			UG*	PG	Total		
1	Anatomy**	5	606	36	642	128: 1	128:1
2	Anatomical Pathology** [∞]	10 [¥]	202	84	286	28: 1	28:1
3	Biochemistry [∞]	5	427	45	472	94:1	94:1
4	Clinical Pharmacology** [∞]	8	202	18	220	27: 1	27:1
5	Hematology/BT	4	227	23	225	56: 1	56:1
6	Microbiology/Immunology** [∞]	8 [¥]	209	69	278	34: 1	34:1
7	Physiology	8 [¥]	330	49	448	56:1	56:1
8	Anesthesiology (9 sub-groups UG)	4	202	15	217	54:1	39:1
9	Clinical Oncology	6	---	7	7	1:1	1:1
10	Emergency Medicine	4	202	10	212	53:1	3:1
11	Internal Medicine (4 grps Yr3; 3 grps Yr5)	13 [∅]	193 (48) 185 (61)	32	141	10:1	13:1
12	Obstetrics/Gynecology	13	193 (48) 185 (61)	45	154	11:1	14:1
13	Ophthalmology (9 sub-groups UG)	7	202 (22)	13	35	5:1	4:1
14	Orthopedics/Traumatology (3 groups UGYr5)	9 [∅]	185 (61)	26	87	10:1	8:1
15	Otorhinolaryngology [∞] (9 sub-groups UG)	2	202 (22)	22	44	22:1	19:1
16	Pediatrics & Child Health	13 [∅]	193 (48) 185 (61)	15	125	10:1	12:1
17	Psychiatry (3 sub-groups UG)	13 [¥]	202 (67)	6	73	6:1	4:1
18	Radiology	7	193	27	220	31:1	24:1
19	Surgery/Urology	12 [∅]	193 (48) 185 (61)	24	133	11:1	14:1

KEY:

- * Students taught in clinical rotation groups – taken into consideration in student: staff ratio estimates
- ** Teaching in the first year in biomedical and diagnostic science disciplines include students from all undergraduate programmes of the School of Medicine and from the BScN, DDS, BScEH and BPharm programmes.
- ¥ One or more staff on study leave not reflected; and or with administrative duties outside department
- ∅ Super specialty allocation (for both teaching and clinical services units) **NOT** taken into consideration on computation of Student: Staff ratio
- ∞ At least 1 or more tutorial assistants not included in establishing staff student ratio.

4.8 Staff capacity building during the reporting period

Staff progress in training activities leading to a degree/certificate in this reporting year: -

- (i) There were 15 (62.5% of all staff in training; 6 of 14 are MUHAS registered PhDs) at various stages of registering for PhD (n=3) or were fully registered between 2010 and 2014 and are implementing PhD work (11 or 73% of all PhD trainees). Of these one has completed her PhD; nine are expected to defend in 2015-2016, while two are scheduled to do so in 2017-2018.
- (ii) Two staff are undergoing postdoctoral training; one at MUHAS (TB transmission interphase between animals and humans) is scheduled to complete later this year and one at the University of Bergen (Microbiology/immunology) started a 2-year postdoctoral training immediately after her PhD defense.
- (iii) Three staff was undertaking a basic MSc programme at MUHAS, one successfully completed the course while two continued to make good progress in their studies.
- (iv) Two staff registered for MMed at MUHAS made good progress in their studies.
- (v) Three staff was registered for superspecialty training in pediatric nephrology, pediatric neurology and pediatric hematology and oncology. The first two courses are fellowship programmes offered in South Africa while the last programme is offered at MUHAS.
- (vi) The pediatric hematology and oncology trainee froze training due to illness in 2013, was subsequently not able to start the course as it was not offered in 2014-15 and she will start the programme in 2015-16. *Staff engagement in faculty development CME activities:* Faculty development CMEs offered by the Directorate of Continuing Education and Professional development (DCEPD) at MUHAS has contributed to staff development in three areas as summarized in Table 2 in appendix 1b.
- (vii) The Directorate of CEPD continued to train staff on Health Professions Education as part of Faculty development and a total of two courses were offered
- (viii) The Directorate of ICT offered two Training for Faculty as part of faculty development to enable them manage assessment of students and curriculum.
- (ix) In total, 43 (30%) staff from the School attended various CME courses offered by the DCEPD.

4.9 Meetings in the School of Medicine

School Board: All scheduled School Boards were held as per Almanac in the reporting year. In addition, a number of extraordinary meetings were held as needed. Weekly meetings of the School Management Committee were held as scheduled at a level of more than 90% of planned meetings.

School Board Committees: Meetings of the School Undergraduate and Postgraduate& Research Committees were held as needed, while 3 of 4 planned meetings of the Teaching and Assessment Quality Committee and 2 of 4 planned meetings of the Planning Committee were held. The School consultancy bureau policy, a product of some of these meetings, was endorsed by the University Council in December 2014.

4.10 Resources mobilization

Short courses

Staff continued to identify priority and demand driven short courses for implementation targeting health care providers in Tanzania and beyond. None has yet been developed and reported to be accredited by DCEPD. The School will continue to follow-up with heads of department to report accredited and implemented short courses.

Student electives

Elective study targeting students outside the country (foreign students) continued to be a major source of income generation from the offered clinical electives in the school. During the reporting year the school received a total of 65 students who completed clinical electives in various departments as summarized in table 8 below: -

Table 8: External students engaged in clinical elections July 2014 to June 2015

Department offering clinical elective	Number of students
Internal Medicine	20
Surgery	12
Emergency Medicine	11
Paediatrics and Child Health	6
Obstetrics/Gynecology	2
Orthopedics/Trauma	4
Hematology/Blood Transfusion	4
Psychiatry and Mental Health	1
Radiology	5
Total	65

The Elective study students this reporting year were from Britain, Canada, Denmark, Germany, Belgium and the United Arab Emirates. A total of 30.25 months of elective studies earned the University TZS 23,926,000 in tuition and registration fees. There has been a steady decline in the number of elective students registered by the University. In the 2013/14 reporting year for example, MUHAS earned from student electives TZS 54,940,410, from 219 elective students. The decline is partly because MNH also has a separate elective student programme since 2014; and it is feasible that other institutions are also offering such clinical elective rotations.

5.0 School of Dentistry

5.1 Introduction



Dr. Ellison Simon

Vision

To become a center of excellence for training professionals, quality research and services in oral health.

Mission

To seek for quality oral health through education, training, research and oral health services for attainment of equitable socio-economic development.

Objectives:

- (i) To provide education and advanced training for oral health personnel
- (ii) To perform research in the field of oral health
- (iii) To provide expert professional services in oral health

Functions

- (i) To provide graduate dentists and postgraduate specialists in different oral health fields suitable for hospital and community work in Tanzania, regionally and internationally
- (ii) To carry out research in all fields of oral health
- (iii) To cater for continuing education in all fields of oral health
- (iv) To render oral health services to patients
- (v) To provide advisory services to the government in the field of oral health

During the reporting academic year (2014/2015), fifty-five (55) undergraduate and six (6) postgraduate students were enrolled in the School of Dentistry (SoD). This was an increase of 69.7% for undergraduate and 100% for postgraduate compared to previous reporting year (2013/2014). Teaching and fieldwork were conducted smoothly and July 2014 and March 2015 examinations for undergraduate as well as postgraduates were done according to the University almanac and without any problems. A total of seventeen (17) undergraduate students, 11 males, and 6 females successfully completed studies and graduated in December 2014. This was an increase of 325% compared to 2013/14 (where only 4 graduated). Also, there were four (4) postgraduate students (all males) who graduated and which was an increase of 20% compared to 2013/14. The decrease was attributable to limited government sponsorship through Ministry of Health and Social

Welfare. The reporting period (2014/2015) was the fourth year that the School of Dentistry, similar to all other undergraduate programmes across the University, had been implementing the “Competence Based Curriculum (CBC)”. The School noted improvement in the mastery of clinical skills among 4th year students following CBC. This was linked to CBC, which has provision for step-wise acquisition of competencies henceforth, year clinical rotations capitalized on foundation of pre-clinical courses taught during 3rd year. Master of Dentistry students in the first two years also, were implementing the competency-based curriculum.

During the year under review one faculty was doing postdoctoral training under MUHAS supervision in collaboration with the Radboud University, Nijmegen, and The Netherlands. Another faculty was on a PhD programme, which is offered by MUHAS in collaboration with the University of Turku, Finland. Several academic members of staff attended seminars and conferences within and outside the country e.g. the Annual MUHAS Scientific conference, TDA Continuing Education workshop and Annual General Meeting. Four (4) academic members of staff visited Universities outside the country as external examiners and one academic member of staff terminated his employment with MUHAS.

During the academic year under review, members of staff from the School conducted research that resulted in seven publications the same as the number of publications during the previous year. Consultation and clinical services to patients with oral health problems in the School of Dentistry clinics and the Muhimbili National Hospital were rendered adequately. During the reporting period the School continued to render its core functions within its three departments as summarized in the Table 9.

Table 9: School of Dentistry Departments and their Core functions

SN	Department	Core functions
1.	Oral and maxillofacial surgery (OMS)	<p>Teach undergraduate and postgraduate students oral and maxillofacial surgery.</p> <p>Conduct research in the area of oral and maxillofacial surgery.</p> <p>Render services to patients and the public in general in oral and maxillofacial surgery.</p>
2.	Restorative Dentistry (RD)	<p>Teach undergraduate and postgraduate students</p> <p>Dental biomaterials, operative dentistry, periodontology, and prosthodontics</p> <p>Conduct research in the area of dental biomaterials, operative dentistry, periodontology, and prosthodontics</p> <p>Render services to patients and public in general in operative dentistry, periodontology, and prosthodontics.</p>

3.	Orthodontics, Paedodontics, and Community Dentistry (OPCD)	<p>Teach undergraduate and postgraduate students paediatric dentistry, orthodontics, and community dentistry</p> <p>Conduct research in paediatric dentistry, orthodontics, and community dentistry</p> <p>Render services to patients and the public in general in preventive and community dentistry, paediatric dentistry, and orthodontics.</p>
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5.2 School of Dentistry Management profile during the reporting period

Table 10: List of Management Team - School of Dentistry

S/N	NAME	POSITION
1	Dr. Elison N. M. Simon	Dean, School of Dentistry
2	Dr. Sira S. Owibingire	Associate Dean, School of Dentistry
3	Dr. Tumaini Simon	Dental Manager, School of Dentistry
4	Dr. Jeremiah Moshly	Head, Department of Oral and Maxillofacial Surgery (OMS)
5	Dr. Emeria A. Mugonzibwa	Head, Department of Orthodontics, Paedodontics and Community Dentistry (OPCD)
6	Dr. Irene A. Kida	Head, Department Restorative Dentistry (RD)

5.3 Staff Matters during the period 2014/2015

During the year under review one academic member of staff was employed but also one academic staff resigned, the number of academic staff therefore remained 20 with a male to female ration of 1.5:1. The M: F ratio improved (from 1.8:1) because of an increase of one female academic member and a decrease of one male. The numbers of academic staff by ranks is as shown in table 11.

Table 11: Number of Academic staff in the School of Dentistry

Department	Designations							
	Professors	Associate Professors	Senior Lecturers	Lecturers	Assistant Lecturers	Tutorial Assistant	Total	On Post
RD	0	1	2	4	0	0	7	7
OPCD	0	2	1	4	1	0	8	8
OMS	0	0	4	1	0	0	5	5
TOTAL	0	3	7	9	1	0	20	20

KEY:

RD = Restorative Dentistry

OPCD = Orthodontics, Paedodontics and Community Dentistry

OMS = Oral and Maxillofacial Surgery

The overall faculty to students' ratio was 1:13 for all DDS students, 1:7 in Oral and Maxillofacial Surgery, 1: 5 in Restorative Dentistry, and 1:5 in Orthodontics, Paedontics and Community Dentistry. The number of academic staff and faculty to student ratios remained almost static.

Table 12: Number of Administrative, Technical and Support Staff - School of Dentistry

QUALIFICATION	MALE	FEMALE	TOTAL
Bachelor degree	3	0	3
Diploma	1	3	4
Certificates	0	1	1
Standard Seven	2	5	7
Total	6	9	15

5.4 Students matters during the year 2014/15

5.4.1 Enrolment

Undergraduate

During the reporting year (2014/2015), fifty-five (55) DDS 1 students were enrolled, which was an increase of 69.7% compared to previous reporting year (2013/2014). As a result of this increase the total number of DDS students increased from 125 to 158 which was 26.4% increase. The proportion of female students, however, decreased from 31.2% in 2013/2014 to 25.3% for the reporting year (2014/2015).

Table 13: Enrolment of Undergraduate Students - School of Dentistry

DDS	SEX		Total	Female %
	M	F		
Semester 1-2	44	11	55	20.0%
Semester 3-4	20	10	30	33.3%
Semester 5-6	22	11	33	33.3%
Semester 7-8	16	6	22	27.7%
Semester 9-10	16	2	18	11.1%
Total	118	40	158	25.3%

Postgraduates

Six (6) postgraduate students were enrolled in the School of Dentistry (SoD). This was an increase of 100% for postgraduates compared to previous reporting year (2013/2014). Nevertheless, this number is still by far lower than the capacity of the School.

5.5 External examiners

The School received external examiners for both the July 2014 and March 2015 examinations as follows:

- (i) Oral and Maxillofacial Surgery - Prof. Mark Chindia from the University of Nairobi
- (ii) Department of Orthodontics, Paedodontics and Community Dentistry – Pof. Anne-Marie Jagthmann.
- (iii) Department of Restorative Dentistry - Prof. Penina Kisumbi from the University of Nairobi

Generally, the external examiners were satisfied with the quality and handling of examinations. All of them expressed satisfaction with students' performance in general and were happy that some of their recommendations given during the previous year's examinations have been given considerations and taken on board this year.

Table 14: Enrolment of Postgraduate Students - School of Dentistry

Degree course	Admission				Registered			
	Sex	Govern-ment	Private	Total	Sex	Govern-ment	Private	Total
MDent. Community Dentistry	M	0	0	0	M	0	0	0
	F	0	0	0	F	0	0	0
MDent. Oral Surgery	M	1	1	2	M	2	1	3
	F	0	0	0	F	0	0	0
MDent. Restorative Dentistry	M	1	0	1	M	1	0	1
	F	2	0	2	F	3	0	3
MDent. Paediatric Dentistry	M	0	0	0	M	2	0	2
	F	1	0	1	F	0	0	0
Total		4	1	4	Total	3	0	9

5.6 Graduation Statistics - School of Dentistry (6th December 2014)

During the reporting year 17 undergraduate and 6 postgraduate students graduated. This was an increase of 325% for undergraduate and an increase of 20% for postgraduate students.

Table 15: Graduation Statistics of Undergraduates and Postgraduates

Undergraduate - Degree Programme	Number of Students Graduated		
	Male	Female	TOTAL
DDS	11	6	17
Postgraduate - Degree Programme	Number of Students Graduated		
	Male	Female	TOTAL
M.Dent	6	0	6
TOTAL	17	6	23

5.7 Major Ongoing Research

Several research projects were going on some of which are internally funded and some externally funded.

Table 16: Major Ongoing Research at the School of Dentistry

SN	Title of the Research project	Research Coordinator	Department
1.	Nylon teeth myth	Prof. F. K. Kahabuka	Orthodontics, Paedodontics and Community Dentistry
2.	Emergence Pattern of Third Molar Teeth among Tanzanians	Dr. E. A Mugonzibwa	Orthodontics, Paedodontics and Community Dentistry
3	Post Doc TASENE Research Award	Dr. M. Mtaya Mlangwa	Orthodontics, Paedodontics and Community Dentistry in Collaboration with Nijmegen University

5.8 Major work implemented during 2014/2015

5.8.1 Department of Restorative Dentistry

During the reporting period the department participated in: -

- (i) Screening of personnel of some public institutions as part of outreach programmes and offering of Atraumatic Restorative Technique (ART) by both undergraduate and postgraduate dental students under supervision to start
- (ii) Promotion of research activities among staff through writing grant proposals and concept notes
- (iii) Promotion of collaboration with other Universities and strengthen existing collaborations.
- (iv) Conducting special course on cosmetic dentistry, and complete the process of accreditation for Oral radiology, endodontics, prosthodontics and dental materials continuing education courses

5.8.2 *Department of Orthodontics, Pedodontics and Community Dentistry*

During the year under review effort to promote research activities among staff through writing grant proposals and concept notes to continued. The department provided treatment service to children and promoted collaboration with other Universities.

5.8.3 *Department of Oral and Maxillofacial Surgery*

In the year under review the department promoted research activities among staff through writing grant proposals and concept notes. provided specialized treatment services to adults and children and promoted collaboration with other Universities while strengthen existing collaboration

5.9 MUHAS - MNH Cooperation

Good working relationship and cooperation was maintained between the two institutions during the period of reporting (2014/2015). MUHAS took over the collection of funds paid by NHIF for patient services in the School of Dentistry building. Cooperation with MNH remained strong throughout the year under report. The MUHAS-MNH staff meetings took place every three months. An incentive package from funds paid by NHIF for patient service was approved and staff started to get the money accruing from claims for the months of October, November and December 2014.

During the previous year 2013/2014 we mainly depended on cash collections from patients' treatment fees but during the reporting year 2014/2015 (from October 2014) the school managed to collect more revenue (almost a 600% increase) due to payment of our claims by NHIF. This has enabled the school to run most of its activities without depending on government subventions.

5.10 Visits

A team from the Miracle Corners of the World (MCW), led by the Health Project Director Dr. Marion visited the School in November 2014 and April/May 2015. Also, Dr. Anne Klamar from the US visited the School to see the projects that her family Company has promised to support with equipment.

Elective students from different Universities in the world especially from the UK and China visited and worked in the School throughout the period under report.

6.0 School of Pharmacy

6.1 Introduction



Prof. V. Mgoyela

The School of Pharmacy has four departments namely Medicinal Chemistry, Pharmacognosy, Pharmaceutics and Pharmaceutical Microbiology. Currently the school has one undergraduate programme (Bachelor of Pharmacy) and seven postgraduate programmes, which are MPharm Quality Control & Quality Assurance, MPharm Pharmacognosy, MPharm Industrial Pharmacy, MPharm Pharmaceutical Microbiology, MPharm in Hospital and Clinical Pharmacy, MPharm Medicinal Chemistry and MSc Pharmaceutical Management.

During the period under review the School started preparations for establishing one new department of Clinical Pharmacy and Pharmacology. Further, the School continued to provide services in drug quality control through its Pharm R & D Laboratory to clients and assisting the Ministry of Health and Social Welfare as well as its various Agencies in several areas of pharmaceutical services policy formulation and implementation.

Vision

To become a center of excellence in pharmaceutical sciences education, research, consultancy and provision of public services that meet the national, regional and global expectations.

Mission Statement

To produce highly trained professionals who are able to provide quality pharmaceutical and consultancy services and carry out research.

6.2 Highlights of Major Achievements and Challenges

During 2014/2015 the School recorded various achievements as detailed below.

6.2.1 Teaching and Learning

Academic programmes

In the reporting period the School advertised its undergraduate programme and all its postgraduate programmes to attract students and increase enrollment. Various events such as Saba Saba, higher education exhibition within and outside the country were used for marketing the programmes.

Admission of Postgraduate Students in the School for 2014/2015

During the academic year a total of 9 students were admitted as shown in table 17 below. This was a slight downward trend from 2013/2014 where a total of 12 students were admitted.

Table 17: The number of postgraduate students admitted during 2014/2015

Programme	Females	Males	Total
MSc Pharm Management	2	-	2
MPharm QA & QC	2	-	2
MPharm Hospital & Clinical Pharmacy	2	2	4
MPharm Industrial Pharmacy	-	1	1
TOTAL	6	3	9

Admission of Undergraduate Students in the School for 2014/2015

For the undergraduate programme, the School admitted 90 students (24 Females and 66 Males). This admission figure is higher (by 34%) than that was recorded last academic year - 2013/2014 (67 students). The actual enrolment capacity is 50 students but the School usually takes about 10% more in anticipation of dropouts and those who do not turn up, but this year the school took 45% more due to many students in the country that qualified to join Universities.

Students Registration

New and ongoing student registration during the reporting year is summarized in Table 18 and 19 below:

Table 18: BPharm Student Registration in 2014/2015

First Year			Second Year			Third Year			Fourth Year			Grand Total		
F	M	T	F	M	T	F	M	T	F	M	T	F	M	T
24	66	90	21	44	65	12	39	51	16	48	64	71	198	270

During the academic year the school registered 90 students in first year, being the highest number ever reached before. But the gender balance remained 26.6% female students.

Table 19: Postgraduate Student Registration in 2014/2015

Academic Year	MSc Pharm Management	MPharm Clinical & Hospital Pharmacy	MPharm QC & QA	MPharm Industrial Pharmacy
2014/2015	2 (100%F)	4(50%F)	2(100%F)	1 (M)

Implementation of the Competence-Based Curriculum (CBC) and Performance in Examinations

Teaching of CBC programmes for undergraduate (1st, 2nd, 3rd and 4th years) and postgraduates continued normally. Students sat for CATs and end of modules examinations as scheduled. End of audit year University Examinations were conducted in August, 2015. Failure rate for the first year students in 2015 has slightly increased to 29.4% compared to year 2014 which recorded a failure rate of 26.6% (Table 19). The second year students recorded the highest failure rate of (56.3%) compared to the previous year, which had 46.6% at first sitting. Five students were discontinued in their first year whereas seven students were discontinued in their second year at first sitting.

In general, the academic performance of undergraduate students for all semesters (2nd, 4th, 6th, and 8th) was not good compared to the previous year.

Table 20: Student performances in examinations at first sitting - August 2015

SUMMARY OF RESULTS	1st yr	2nd yr	3rd yr	4th yr
Number of students sat for the Examination	85	64	51	64
Number of students passed	59	27	35	32
Number of students failed	20	29	15	32
Incomplete results	1	1	1	0
Number of students DISCONTINUED	5	7	0	0
Failure rate %	29.40%	56.30%	29.40%	50.00%

For postgraduate students, the academic performance at first sitting in 2014/15 was generally satisfactory for all programmes.

Student output

A total of sixty-four (64) final year undergraduate programme and eight (8) Postgraduate programmes (Yr2) students sat for their final University Examinations in August 2015 and are expected to graduate in December, 2015 graduation ceremonies (Tables 20 and 21). One PhD student from the Department of Clinical Pharmacy and Pharmacology defended her dissertation titled “*Pharmacokinetics and Pharmacogenetics interaction between Lumefantrine and antiretroviral drugs and their influence on the treatment outcomes of non-severe falciparum malaria*” and passed and is also expected to graduate in December 2015 graduation ceremonies.

Table 21: Postgraduate Student performance

No. of students	MSc Pharm Mngmt		MPharm Hospital & Clinical Pharmacy		MPharm QC & QA		MSc. Pharma cognosy		MPharm Industrial Pharmacy		MSc QC & QA By Research	
	Yr1	Yr2	Yr1	Yr 2	Yr1	Yr2	Yr1	Yr2	Yr1	Yr2	Yr1	Yr2
Sat for the Examination	2	8	4	-	2	-	-	1	1	1	-	2
Passed	2	6	1	-	2	-	-	1	1	1	-	2
Failed	0	1	3		0			0	0	0		0
Incomplete	0	1	0		0			0	0	0		0
% Failure rate	0%	12.5%	75%	-	0%	-	-	0%	0%	0%	-	0%

Curriculum implementation

During this reporting period, the curriculum faced various challenges, including challenges to implement the fieldwork modules to BPharm IV students and teaching of modules in Medicinal Chemistry. The fieldwork is composed of 4 modules each running for 2 weeks. One of the challenges faced was the allocation of field allowance to students by TCU, which allows a maximum of 4 weeks in any academic year. Another challenge was the slots to place the students at the Pharmaceutical Industries and the TFDA were not enough. Only half of the students managed to visit the industries. However, all students successfully participated in the fieldwork in hospitals. In the CBE curriculum Medicinal Chemistry is compressed and taught in six modules however, the department concurred with the External Examiner during the University Examinations in August 2015, which some modules need to be split for the students to achieve the competencies adequately. Hence, the school will arrange the fieldwork such that students have to go to other stations upcountry so that each student will be able to rotate in all field stations. Medicinal chemistry department has been given the responsibility to work out modalities of splitting the modules as suggested by the external examiner

6.2.2 Human Resource Development

Staff Recruitment and Development

During the year under review (2014/2015), two (2) academic staff was recruited to take positions of Tutorial Assistant. Also the School had academic staff on studies. The list of the same is as presented in table 22 below:

Table 22: Academic staff members who were on training during 2014/2015

S/N	Name	Department	Degree Sought (Institution)	Status
1	Kalala, Wilbrord M.	Pharmaceutics	PhD (MUHAS)	Finalizing Thesis/expected to graduate Feb. 2016
2	Maganda, Betty	Pharmaceutics	PhD (MUHAS)	About to graduate
3	Mori, Amani T.	Pharmaceutics	PhD (Bergen, Norway)	Graduating in August, 2015
4	Mathias, Eulambius	Pharmaceutics	M Pharm Industrial Pharmacy (MUHAS)	To graduate December, 2015
5.	Mwakalukwa, Rogers	Pharmacognosy	M. Pharm (MUHAS)	Writing Dissertation
6	Tindamanyile, Amisa	Pharmaceutics	MPharm Pharmacognosy (MUHAS)	To graduate 2016
7.	Mutagonda, Ritah	Pharmacognosy	PhD (MUHAS)	To graduate 2016
8.	Mlyuka, Ham	Pharmacognosy	MPharm (MUHAS)	To graduate 2017
9.	Masota, Nelson	Medicinal Chemistry	MPharm (by research)	Data collection

Two staff attended the Laboratory training on formulation development for Nano medicine pharmaceuticals in South Africa and one went for Alexander Van Humboldt research fellowship awarded by the University of Würzburg - Germany. This training has improved staff performance in formulation development.

6.2.3 Research and Publications

Research Grants

Renovation of analytical laboratory by JSI-USAID

During the period under review, the school received a grant from JSI-USAID to renovate the Analytical Laboratory and phase one of the renovations was completed in April, 2014 at a total cost of USD.130, 451.30. Phase two which is equipping the lab was completed in December 2014 and the new lab was officially inaugurated in February 2015 at a total cost of 400,000 USD by the Head of USAID Health Mission in Tanzania.

Research and Publications in the School

During the year under review, individual faculties in the School continued to carry out research in various topics and published their results in various journals. A total of 12 scientific publications were published in various peer reviewed scientific journals.

Scientific/Professional conferences and Workshops

A total of 8 members of academic staff attended the 3rd MUHAS Scientific Conference held on 28th to 29th May, 2015 and presented their research findings. The presentations were from the Department of Medicinal Chemistry, two (2), Department of Pharmaceutics, four (4), Department of Pharmacognosy one (1) and Unit of Pharmacology and Therapeutics two (2).

Also one academic staff of the school attended the first International Caparica Conference on Antibiotic Resistance in Lisbon, Portugal held on 26th to 28th January, 2015 and presented a paper. Two (2) academic staff attended another conference on Energy, Water Food Nexus in USA - FLORIDA at Florida Agricultural Mechanical University from 26th to 28th March, 2015, and presented a poster on “Assessment of Pesticidal Bioactivity and Repellant Potency of selected indigenous mushroom species in stored maize grams”.

6.2.4 Five year Rolling Strategic Plan 2014/15 - 2018/19

The School's five years rolling strategic plan was revised some strategic objectives were added, after incorporating inputs from School level and University-wide strategic planning workshop which was held on 25th to 27th August, 2015. Finally, the School came up with 14 Strategic objectives to align with the University Strategic objectives set for the period 2015/16 to 2019/20.

6.2.5 Consultancy and public services

(i) Institutional Overhead/Internally generated funds

During 2014/2015, the school received a total of TZS 7,326,000 and USD 8,130 from various activities carried out in the school through the R & D Laboratory services. Also the school generated a total of TZS 6,036,000/= as practical training consultancy from St John University of Tanzania and Catholic University of Health and Allied Sciences.

(iii) Part-time teaching at other universities.

Members of staff in the school assisted the practical training of pharmacy students at Catholic University of Health and Allied Sciences (CUHAS) at Bugando and St John's University in Dodoma. The Memorandum of Understanding between MUHAS and St. John University was signed but the School and the University were still processing that of CUHAS.

(iv) External Collaborations

During the reporting period the Florida Agricultural and Mechanical University -MUHAS Memorandum of Understanding was signed by both parties. MUHAS now can collaborate with different colleagues and Schools at Florida Agricultural and Mechanical University (FA&MU) based on areas of mutual interest such as International students exchange (recruitment pool for international graduate students), online course delivery, short-term training for international faculty (specialized certificates/diplomas), faculty sabbaticals, graduate sandwich programmes (MSc and PhD), student exchange programmes, joint international research projects/grants (NSF, NIH, USDA, USAID), Technological transfer; Capacity building and Cultural Exchange programmes.

Another Memorandum of Understanding between MUHAS and University of PAVIA was signed by both parties and the key areas of collaborations includes: Exchange of academic and research staff for lectures, seminars, lessons, joint research programmes, training courses, participation in degree and dissertation commissions; Exchange of postgraduate students for courses of advanced study, seminars, research required to complete dissertation and theses; Exchange of publications and scientific information and Exchange of administrative staff for professional updating the management.

(iv) External Examiners

During the academic year 2014/2015 External examiners were invited examine in Departments of the School for July University Examinations as follows: -

- Dr. Kennedy Omondi Abuga, Department of Pharmaceutical Chemistry, University of Nairobi for the Medicinal Chemistry.
- Prof. Ahmed Abu El-Ghati Ahmed GOHAR, Mansoura University, Egypt for Pharmacognosy.
- Prof. Wael A. El-Nagar from Northern Boarder University, Rafha, KSA for Pharmaceutical Microbiology.
- Prof. G. Kongola from CUHAS University from unit of Pharmacology.
- Dr. Shital Mahindra Maru of University of Nairobi for Pharmaceutics/Pharmacy Practice
- Dr. Lucy Namkinga from UDSM
- Dr. Mahmoud F. Elsebai from Mansoura University, Egypt
- Prof. Dr. Emile Bienvenu from University of Rwanda

During the same reporting time, faculties from the School were invited to serve as External Examiners at the Schools of Pharmacy at St. John University, CUHAS and Mount Kenya University.

6.2.6 Challenges experienced by the School during the reporting year

Infrastructure

The School continued to experience constraints in infrastructure for all core activities (Teaching, Research and Consultancy) in terms of space, equipment, reagents and funding. The school is trying to address these challenges through writing research proposal and income generation proposal to obtain funds. The school has also been proposing to University authority to set budgetary support for purchase of undergraduate chemicals and equipment.

Staffing

During the reporting time, staffing continued to be inadequate in most of the Departments. Pharmaceutics Department which is responsible for teaching two courses to undergraduate BPharm students and two (2) programmes for postgraduate had one retired staff, only one active senior staff and one Tutorial Assistant while four (4) staff are on studies. This gives a staff-student ratio of 1:80 or if you consider the two subjects for the department. The Department of Pharmaceutical Microbiology had three (3) faculty who also had administrative responsibilities. This was therefore a staff-student ratio of 1: 90 for the department. Department of Medicinal Chemistry had one retired staff, two (2) staff with administrative duties and two (2) staff in charge of R&D Laboratory. The staff-student ration was therefore 1: 54. The Department of Pharmacognosy and Unit of Pharmacology & Therapeutics had a total 11 faculties two of whom are on post-retirement contracts and three (3) had some other administrative duties, four (4) were Senior Lectures, Lecturers and Assistant Lecturers while two (2) were Tutorial Assistants. This therefore translated to staff-student ratio of 1:25 for the department.

In order to address the staff inadequacy, the school intends to recruit more staff if permission to employ is granted The School has also been identifying potential final year BPharm students for recruitment as tutorial assistants and subsequently encourage them to register for postgraduate programmes in the School.

7.0 School of Nursing

7.1 Introduction



DR. S. Leshabari

In the academic year 2014/2015 the School of Nursing (SON) continued to perform its core functions of teaching, research and public services as well as establishing links and other collaborative activities. The school is currently running three undergraduate programmes and three postgraduate programmes namely, Bachelor of Science in Nursing, Bachelor of Science in Midwifery, Bachelor of Science Nursing Management (planned to be upgraded to MSc. Nursing Management in 2017), Master of Science in Mental Health Nursing, Master of Science in Critical care and Trauma Nursing and Master of Science in Midwifery and Women's Health.

7.2 Teaching

For the year 2014/2015, the total number of (92) applicants were registered to join both undergraduate and postgraduate programmes in the SON. The distribution was as follows; BSc. Nursing (54), BSc. Midwifery (21); MSc. Mental Health Nursing (2), MSc. Critical care and Trauma Nursing (6) and MSc. Midwifery and Women's Health (9). Overall, there was an increase in total number of 1st year registered students for both Undergraduate (31.57% increase) and Postgraduate (30.77%) programmes (Table 23): -

Table 23: Registered 1st year Undergraduate and Postgraduate students in 2013/14 and 2014/15

Programmes	Registered students in 2013/14	Registered students in 2014/15
Undergraduate		
BSc. Nursing	39	54 (38.46% increase)
BSc. Midwifery	13	21 (61.5% increase)
BSc. Nursing Management	5	-
Total	57	75 (31.57% increase)
Postgraduate Programmes		
MSc. Nursing Critical Care and Trauma	11	6 (45.45% decrease)
MSc. Nursing Mental Health	2	2 (No change)
MSc. Midwifery and Women's Health	-	9 (New programme)
Total	13	17 (30.77 increase)

Performance in examinations

The percent of Undergraduate students who passed in the first sitting decreased slightly from 63.8% in 2014 to 61.8% in 2015. Also, the supplementary cases decreased from 36% to 34.9%. Although, we did not have discontinued students in 2014, the percent of discontinued students in 2015 was very low (2.6%). The pass in first sitting for Postgraduate students improved tremendously from 50% in 2014 to 94.3% in 2015. There was no discontinuation among Postgraduate students (Table 24).

Table 24: Performance in Examination for Undergraduate and Postgraduate in end of audit year 2014 and 2015

Programmes	July 2014			July 2015		
	Pass	Supplementary	Disco	Pass	Supplementary	Discontinuation
Undergraduate						
BSc. Nursing	89/124 (72%)	35/124 (28%)	-	54/88 (61%)	31/88 (35.22%)	2/88 (2.27%)
BSc. Midwifery	20/37 (54%)	17/37 (46%)	-	38/59 (64%)	20/59 (34%)	1/59 (1.6%)
BSc. Nursing Management	2/13 (15%)	11/13 (84.6%)	-	2/5 (40%)	2/5 (40%)	1/5 (20%)
Total	111/174 (63.8%)	63/174 (36%)	0	94/152 (61.8%)	53/152 (34.9%)	4/152 (2.6%)
Postgraduate						
MSc. Nursing Critical Care and Trauma	9/17 (53%)	8/17 (47%)	-	17/19 (89.5%)	2/19 (10.5%)	-
MSc. Nursing Mental Health	2/5 (40%)	3/5 (60%)	-	5/5 (100%)	0/5	-
MSc. Midwifery and Women's Health	-	-	-	11/11 (100%)	0/11	-
Total	11/22 (50%)	11/22 (50%)		33/35 (94.3%)	2/35 (5.7%)	

Graduation in 2015 for Undergraduates and Postgraduates

Comparing with the last year, in 2015, the number of graduates in Undergraduate and Postgraduate programmes decreased and increased by 2% and 166% respectively (Table 25): -

Table 25. Number of Graduates in Undergraduate and Postgraduate Programmes in 2014 and 2015

Programmes	Number of Graduates in December 2014	Number of Graduates in December 2015
Undergraduate		
BSc. Nursing	34	26 (23.5% decrease)
BSc. Midwifery	12	15 (25% increase)
BSc. Nursing Management	5	9 (80% increase)
Total	51	50 (2% decrease)
Postgraduate		
MSc. Nursing Critical Care and Trauma	4	13 (225% increase)
MSc. Nursing Mental Health	2	3 (30% increase)
Total	6	16 (166% increase)

7.3 Curriculum

The School under the SENATE directives converted the 3-years equivalent undergraduate programmes to 4-year programmes similar to direct entrants' undergraduates. The three MSc. Curricula (MSc. Mental Health Nursing, MSc. Critical care and Trauma Nursing and MSc. Midwifery and Women's Health) were revised to competence-based and submitted for approval through SHDC.

7.4 Collaborations

The Linnaeus Palme collaboration between SON and Umea University as well as with Uppsala University received funding again during the reporting period (2014/15). This facilitated teacher/student exchanges during the period. Four best students (2 BSc. Midwifery) participated in the student exchange programme for Midwifery clinical placement in Uppsala University. Also two (2) BSc Nursing students went for nursing clinical placement in Umea University during the long vacation for three (3) months. Two faculty went to supervise students, one at Uppsala University and another one at Umea University for a period of three weeks each as part of teacher-exchange programme.

Partnerships for research, teaching and student exchange continued during the reporting period with various Universities E.g. University of Illinois in Chicago, U.S.A; Wright State University of Ohio,

USA; University of Pennsylvania State University; St Luke's College of Nursing in Japan; Bergen University College in Norway and University College of Odense in Denmark.

The School of Nursing formed partnerships with other Schools of Nursing in the eight Universities in health sciences (public and private) in Tanzania through the formation of the Dean's forum. The forum intends to collaborate in various activities to promote Nursing and Midwifery education and professionalism in Tanzania. The SON therefore strived to maintain and strengthen these links and made concerted efforts to promote international, regional and local links. The three Deans from Schools of Nursing at the University of Makerere in Uganda, University of Rwanda and MUHAS have started preparing Memorandum of Understanding for East Africa Dean's Forum (Regional Collaboration). This commenced after starting the harmonization of Nursing and Midwifery Education in the East Africa Partner States.

7.5 Human Resource Development in the School of Nursing

Staff Recruitment

During the 2014/15 reporting year five applicants were interviewed but only three were eligible for recruitment as academic staff.

Staff Development

In the year under review 2014/15 two faculty continued with PhD training at MUHAS and another one at St. Lukes University in Japan. The one at MUHAS is planning to defend his PhD during 2015/16 academic year. Most staff participated in the workshops as well as other Continuing Education for professional Developments as follows: -

Table 26: Selected workshops and number of faculty who participated

SN	Details of the workshop	No. of faculty
1	Human Resource for Health: The State of Current Nursing Sector in Tanzania: Annual Conference of Consortium for Universities Global Health-CUGH. Panelist, <i>Effective Models in Addressing Current HRH Challenges in Resource-limited Settings, March 25-28, 2015. Boston, USA</i>	1
2	St. Luke's International University collaboration research training. Paper presented: Waiting for attention and care: birthing accounts of women in rural Tanzania who developed obstetric fistula as an outcome of labour. 30 th October 2014. Tokyo, Japan.	1
3	National Consultative Meeting to discuss and develop an implementation framework for the EAC Regional Nursing Harmonization of Nurses and Midwives Education, Practice, Mutual accreditation and recognition in the East African Community Partner States. The workshop was organized by EAC Secretariat. 26-27 August 2015, Serena Hotel, Dar es Salaam, Tanzania.	3
4	Workshop on harmonizing and finalizing protocol and data collection tools for	1

	Task Sharing collaborative research project between Tanzania & Malawi. The workshop was organized by TRAction & USAD. 19-22 May 2015, Bethesda, Maryland, USA	
5	Preparation of Clinical Instructor Policy guideline for nurses and midwives. The workshop was conducted in Dar es Salaam at AIHA from 8-13 December 2014, and it was organized by MoHSW- office of the Chief Nurse and UNFPA. Dar es Salaam	1
6	Preparation of Skills Laboratory Methodology Policy Guideline, 1-5 December 2014. Organized by the Office of Chief Nursing Officer (CNO) and UNFPA, Dar es Salaam	1
7	Oral Health Scholar programmes for Nurses at New York, US from May 1 to July 1 2015. This was a collaborative programme between the MUHAS, MOHSW, NYU College of Nursing and Miracle Corner of the World (MCW). The programme aims to establish Oral health training for nurses in Tanzania	1
8	Capacity building training for health care workers as a Facilitator and I facilitated on Prevention of postpartum hemorrhage at Tumbi Hospital Kibaha on 31st October 2014.	1

7.6 Promotions

During the reporting period two members of staff were promoted from Lecturer to Senior lecturer.

7.7 Research and Publications

Staff in the School carried out research and wrote proposals in various areas relevant to Nursing and Midwifery. During the reporting period several members participated very actively in writing proposals for Sida funding. Three among several clusters were successful and received funding which will recruit PhD and Masters Students as part of School capacity building.

Most academic members of the School despite overload in teaching, participated in writing manuscripts and conferences as follows during the reporting year: - six (6) articles were published in international journals; Four (4) academic staff participated and presented in the 3rd MUHAS scientific conference held between 28th and 29th May, 2015. In addition, one undergraduate student under supervision of school of nursing faculty presented in 5th National Quality Improvement Forum on Health and Social Welfare on 26 August, 2015.

8.0 School of Public Health and Social Sciences

8.1 Introduction



Prof. D. Urassa

The School of Public Health and Social Sciences is among the five Schools within the Muhimbili University of Health and Allied Sciences and has continued addressing the core functions of the University which are training, research and community service as well as establishing new links and collaborative activities. The School has a total number of 68 staff among them 51 are academic staff and the rest are administrative technical and support staff. The School also has ten staff supported by projects.

Vision

The vision of the School of Public Health and Social Sciences is to become a centre of excellence for training in public health and social sciences professionals, conducting quality research and providing public service both at home in Tanzania, East Africa, and beyond.

Mission

The mission of the SPHSS is to improve the health of people in Tanzania through teaching, research, consultancy and public health services using public health principles for the attainment of school, staff and University development. This mission is in line with the University mission

The School of Public Health and Social Sciences is running one undergraduate course namely Bachelor of Science in Environmental Health Sciences since 2001 and so far has managed to produce 275 Environmental Health Scientist graduates where by 104 (37.8%) of them were females.

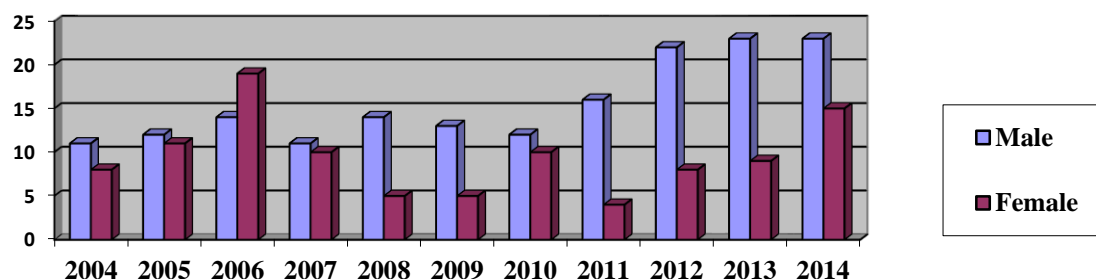


Figure 12: BSc Environmental Health Graduates

The School also hosts twelve postgraduate courses programmes, namely: -Master of Public Health; Regular, Executive and distance learning tracks, Master of Arts in Health Policy and Management, Msc. in Tropical Diseases Control, Msc.in Applied Epidemiology, Msc.in Epidemiology and Laboratory Management, Msc.in Parasitology and Medical Entomology, Master of Medicine Community Health. Others are Msc. in Behavior Change, MSc. in Behavior Change

Communication, MSc. in Environmental and Occupational Health, Master in Bioethics and MSc. Health Information Management.

Furthermore, the School is in the process to establishing more master programmes including Master of Business Administration Health Service Management, MSc. Biostatistics and MSc. Health Care Delivery Science, MSc. Hospital management for Health professional, and MSc. Monitoring and Evaluation in Health.

8.2 Workshops/Meetings Attended

There was equal number (16) of different workshop/conference attended by different members of staff at SPHSS when comparing the year 2013/2014 and 2014/2015.

The SPHSS is one among twelve Schools of Public Health and Veterinary Medicine from six countries of Central and Eastern Africa that work together in One Health programme. The Dean of SPHSS as a member of the board for One Health Central and East African (OHCEA) network, attended a board meeting in Kampala which discussed and deliberate on the following issues

Approved a budget of USD 73,678 to OHCEA Tanzania for implementation of the first year activities of EPT2 as per their proposed budget.

Requested that OHCEA secretariat sign a Memorandum of understandings (MOU) with its member institutions on the roles and responsibilities for implementation of EPT2 activities and how budget should be released

Requested Schools to send annotated curriculum vitae of all of their staff to the OHCEA secretariat for capacity assessment as well as allocation of different opportunities.

Furthermore, Opportunities in EPT2 for institutions and students were identified as follows: -

- Support for training students (for one Health workforce) in undergraduate and postgraduate students on curricula revisions, field attachments as well as use of technology in teaching
- Support short courses, mainly online for in-service One Health work force
- Strengthen OHCEA network by supporting trainings on Grant writings, and on financial or administrative systems to pass USAID audit requirements
- Small grant for teams of students working in multidisciplinary intervention or proposal, data analysis or report writing
- Sabbatical leave support (up to One year) for staff with a proposal to write something on One Health
- Support development of a structure for faculty incentives for senior to mentor the Junior ones (retreats for proposal reviews or report writings in one health)

All faculties at the School were invited to attended workshops organized by the SPHSS on teaching competence-based and e-learning using Moodle. They also attended the University-wide training

workshop on OPRAS and thereafter became instrumental in guiding their fellow staff to understand better how OPRAS operates.

A member of staff attended a Workshop on proposal development for the German Federal Ministry of Education and Research (BMBF) in Zanzibar as well as Data analysis workshop of the key population studies in Oslo, Norway. Another member of staff attended International Atomic Energy Obesity project meeting in Vienna, Austria. Also a member of staff attended stakeholders meeting held at Arusha hotel in Arusha to present and share results of the project “Medicines Access, Use, knowledge and perception in Districts Served by Accredited Drug Dispensing Outlets in Tanzania.

Another member of staff represented MUHAS in the workshop on Preparation of Strategic Planning for Food Safety Policy Implementation, organized by the Tanzania Food and Drug Administration (TFDA).

All members of staff were invited and attended the Open and Distance Learning (ODL) Material Writing Skills Workshop organized by Directorate of Continuing Education and Professional Development followed by another workshop organized by School in collaboration with Dartmouth and Boston Universities. This was part of the process of establishing distance learning programmes in the School, which was aimed to start in the academic year 2015/2016.

One member of staff attended workshops for development of MoHSW communication guidelines for key population. Furthermore, he participated in a workshop for validation of SBCC tools to promote infant and young child nutrition for Save the Children Fund and TFNC

Two members of staff attended a meeting on Advancing Collaborative Education and Research in Africa in Dar es Salaam. This meeting was organized by Africa Academy for Public Health in collaboration with Harvard H.T. Chan School of Public Health. The purpose of the meeting was to discuss the DELTAS application in which MUHAS is a core partner. The application was then submitted to Welcome Trust.

Another member attended a meeting organized by Measure Evaluation, Tanzania. The purpose of the meeting was to solicit feedback from stakeholders on key Health Information Systems (HIS) and Monitoring and Evaluation (M&E) needs and priorities, and identify mechanisms for effective collaboration with key stakeholders.

One member of staff attended and represented the University in a meeting organized by the MOHSW to aim at costing the ministry’s Community-Based Health programme Strategic plan which is designed to roll out an integrated Community Health Worker cadre.

Another member of staff attended the National Evaluation Platform (NEP) workshop in Bagamoyo organized by NBS. NEP is NBS based project with Technical support from Johns Hopkins University and funded by the Canadian Government. The project targets Public Sector Institutions, which are involved in Maternal, Newborn, Child Health and Nutrition interventions. These

Institutions include MoHSW, TFNC, PMORALG, SUA and MUHAS. The main objective of NEP is to equip the Government of Tanzania with tools and skills to evaluate health and nutritional Programmes by identifying, systematically compiling and rigorously analyzing data from diverse sources. The workshop identified the key findings following the List modeling and prepared presentations for policy makers who requested this information to strengthen health and nutritional policies and programmes in the country.

Majority of members of staff attended 3rd MUHAS Scientific Conference held at Kunduchi Beach hotel and some of them presented papers in their respective areas of specialties.

One member of staff, Attended WHO/TDR and UNDP Access and Delivery Partnership writing workshop. A compilation of proposals (report book) has been developed to provide various implementations and operational research questions to be submitted for grants seeking.

8.3 Teaching

In the only one undergraduate programme in the school a total of forty-Seven (47) applicants were selected to join BSc Environmental Health Sciences programme. There was increased admission for undergraduate students from 20 in the year 2013/2014 when compared to 47 in the year 2014/2015 which is 135% increase.

In the postgraduate programmes generally there was an increased in the number of applicants from 177 in the year 2013/2014 to 264 in the year 2014/2015 indicating a demand increase of 49%. The number of enrolled students had also increased from 141 in the year 2013/2014 to 165 in the year 2014/2015 which is an increase of 17%. However, when looking at the specific programmes there were a significant variation on the number of enrolment ranging from 34 in the MPH executive track to one candidate in the MMed Community Health.

In order to increase number of applicants in various programmes that receive less students the School has created Alumni networks and one staff is employed by project in order to get in touch with SPHSS graduates at their working places so as to get information on their demands on how to improve our programmes as well as further advertising our programmes. The School is strategizing on different ways of marketing our programmes so as to increase the number of enrollment especially for postgraduate programmes.

8.4 Graduates

During the eighth MUHAS graduation ceremony held on the 6th December 2015 a total of thirty-eight (38) undergraduate students of the year 2014/2015 were awarded Bachelor of Science degree in Environmental Health Sciences. This number was a bit more than 37 who graduated in the year 2013/2014 which is an increase of 2.6 %. All undergraduate students successfully graduated as were expected.

In the postgraduate programmes a total of sixty-one (61) students were awarded Master degree in different programmes as follows; Master of Public Health (43), MSc. Epidemiology and Lab Management (5), MSc. Applied Epidemiology (5), MSc. Parasitology and Medical Entomology (1), MSc. Tropical Disease Control (3) and MMED Community Health (4). The total number graduates were less than the number 65 in the previous year 2013/2014 and this was 6.25% drop.

Few postgraduate students did not manage to graduate as was expected due to failure to complete their dissertations. Most of them took longer time in data collection as a result failed to comply with the duration set to accomplish the module hence fall behind. The school will put more efforts in sensitizing both students and their supervisors on the need to complete the work on the given timelines.

Furthermore, members of staff continued with teaching of both postgraduate and undergraduate students within the School and University at Large for those crosscutting courses. Staff supervised students in writing their dissertations and also travelled to various part of the country to carry out fieldwork supervision.

The School through the Department of Community Health planned, organized and facilitated Semester 4 MD/DDS nutrition field project in Pwani region. A total of 233 students, seven faculties, seven drivers and one fieldwork organizer were involved in this activity.

Members of staff organized and facilitated the Global Health course that was conducted at MUHAS from 4th to 29th August 2014. Staff from MUHAS and from other Universities including the University of Dar es Salaam facilitated this course.

8.5 Short Courses

In the year 2014/2015 we conducted two short courses compared to four which were conducted in the year 2013/2014 and this performance was less by 100%.

Two short courses namely Basic Principles in Occupational Hygiene (BPOH) and Project management, monitoring and evaluation in health care interventions were delivered during the year 2014/2015. The first course attracted many participants and a total of 25 attended and were awarded certificates of participation. The second short course had few participants due to lack of financial support from their employers. The School will communicate with the DCEPD to advertise courses in time so that stakeholders are well informed and set aside budgets to attend the course in the future.

Revised curricular for new short courses on Basic Laboratory Methods in Parasitology and Advanced Qualitative Methods were submitted for accreditation at the Directorate of continuing Education and Professional Development.

The focus of the School is to use these short courses not only for strengthening and sharpening skills of health professionals working in various areas but also as a source of internal generation of funds to support running of school activities and university at large.

8.6 Collaborations and Networking

In the year 2014/2015 the school had 42 collaborations and networking (not excluding overlapping) with different institutions nationally and internationally compared to 38 which were there in the year 2013/2014 which was an increase by 10.5%. During the year under review the University joined the Talloires Network of institutions of Higher Education worldwide. One member of staff was appointed the PI of the Youth Entrepreneurship Participation Initiative – Solve the Equation East Africa project, which is addressing issues of unemployment among university students after graduation. The project provides students with entrepreneurship skills while still in the university. The Department of Development Studies was given the responsibility of providing these skills and Mr. Dereck Chitama of Development Studies was appointed by the Vice Chancellor to be the University liaison for Talloires. He is also the co-principal Investigator of the project.

Talloires Network signing ceremony, which was presided by the Vice Chancellor was witnessed by more than 40 members of staff from the school. The Talloires Declaration on civic roles and social responsibility was also signed. The ceremony took place on 4th September 2014 in the University Board Room.

During the year the School launched a Master in Public Health by distance learning programme, which was witnessed by two Vice chancellors from MUHAS and the Open University of Tanzania (OUT). This programme will be conducted in collaboration with OUT as a step forward for strengthening collaborations with other partners both locally and internationally.

8.7 Research

During the reporting period members of staff continued to do research activities, which is among the core functions of the University. The staff from different departments at school wrote 14 new research proposals the number, which was almost similar to 13 proposals, which were written, in same period in the previous year 2013/2014. They had 19 ongoing research projects from the previous year. The school registered 64 publications counted by number staff with publications and this number is less than 82 in the year 2013/2014 which was a less performance by 28%. However, this number does not represent a total number of publications rather the number of staff who appeared in publications and the multiple counts was not excluded.

8.8 Consultancy

During the reporting period 10 new consultancy proposals were written to bid for consultancy services the number, which was exactly the same as the one written during the same period in the year 2013/2014. The number of performed consultancies in the year 2014/2015 were reported to be

8 the number, which is different from 11, performed in the previous year 2013/2014 and this performance was less by 37%.

9.0 Institute of Allied Health Sciences

9.1 Introduction



Mr. L. Ndolele

The institute of Allied Health Sciences is one of the Institutes, Directorates and Schools of Muhimbili University of Health and Allied Sciences (MUHAS) involved in training of the Allied Health professionals. The Institute is located within the premises of the Muhimbili National Hospital (MNH) with thirteen (13) schools; nine (9) at Muhimbili, two (2) at KCMC Moshi, one (1) at Mpwapwa and one (1) in Tanga.

During the year of the report the future administration position of the institute, after dissolution of the former Muhimbili Medical Centre and Muhimbili University College, remain unresolved by the relevant Authorities.

9.2 Student Enrolment and Academic Programmes

During the year 2014/2015 the Institute enrolled a total number of 1034 students, 563 (54.4%) males and 316 (45.6%) females. Of those enrolled, 155(14.9%) were at KCMC, Mpwapwa and Tanga. The remaining (85.1%) were at Muhimbili campus. The Evening programmes in the five (5) programmes namely; Diploma in Pharmaceutical Sciences (DPS) (existing), Diploma in Diagnostic Radiography (DDR), Diploma in Environmental Health Sciences (DEHS), Diploma in Medical Laboratory Sciences (DMLS) and Diploma in Nursing (DN), Continued to be provided and attracted more applicants than the previous year.

9.3 Student Admission

The number of qualified applicants aspiring to join the programme of the Institute has been increasing from year to year. However, the number of students admitted has been limited by inadequate teaching facilities. During the year of reporting, **439 students** were admitted of whom **191 (43.50%)** males and **243 (55.35%)** were females. This is a decrease of 106 males and an increase of 90 females.

9.4 Teaching Staff Recruitment and Development

The Institute has no structured development programme for its teaching staff and can not use the University system because it not under the University administration. Therefore, the Institute depends on placement of teaching staff by the Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC). During the year of reporting the Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC) posted tutors to schools although some of the teaching staff went on compulsory retirement and study leaves. 3 teachers were posted to various schools at the Institute. This made the ratio of the teacher/student of each

school to be at 1:46 ratio. About 5 teachers/staff are on retirement. This makes the Institute to continue to be severely affected by shortage of teaching staff and hence is heavily dependent on part-time teachers.

9.5 Administrative and Technical Staff Recruitment and Development

The Institute continued to utilize administrative and technical staff of the Muhimbili National Hospital who have been working in the Institute before the dissolution of Muhimbili Medical Centre and MUCHS. The Institute has no structured system for recruitment and development. The staffing level and requirements for each school has been developed and submitted to the MOH for support.

9.6 Research and Publications

The Institute had very low research output only few staff members were engaged in research activities. Nevertheless, efforts are being made to raise the awareness in this particular area of our responsibilities.

9.7 Consultancy and Public Service

Individual staff members were involved in community services and consultancies especially in the Ministry of Health and Social Welfare (MOHSW) projects. The IAHS was also involved in the Saba Saba exhibition of 2014. A number of consultancies on the distance learning programmes in Nursing and Environmental health have been conducted and succeeded in starting the Diploma course in distance learning from 2014/2015.

9.8 Curricula Revision Progress

The process of curricula polishing continued to make them competence based. The efforts are under way to review and register other programmes.

9.9 Rehabilitation of Nurses Hostel Blocks 26 and IAHS main Building

Rehabilitation of the Nurses Hostel Blocks was ongoing and the Institute made efforts to continue with rehabilitation accordingly. It was expected that the rehabilitation would be finalized in few weeks. The IAHS also managed to remove fungus growth on its main building in the year in under review. Efforts are being done to increase one floor on top of the IAHS building to enhance the capacity of space requirement.

9.10 Improvement of Cafeteria Accommodation Services at Nurses Hostel

A significant improvement was made during the year of reporting by procuring 80 mattresses and 40 double decker beds, thus all students were able to sleep on beds and mattresses.

9.11 Improvement of Boarding Services at Nurses Hostel

The water tanks were put in place for the clean water supply. This is aiming at addressing the water shortages accordingly. The hostel infrastructure was maintained.

9.13 Constraints Facing the Institute

During the reporting period the institute experienced the following constraints: -

Undefined administrative position of the Institute following the reforms involving the former Muhimbili Medical Centre and MUCHS. However, there are efforts to solve the problem. The task force appointed to negotiate with the Ministry of health continued with negotiations and it was expected that it would reach a solution soon.

Inadequate funding: Poor funding resulted into inadequate and poor state of buildings especially the Institute building, which requires major rehabilitation.

10.0 Institute of Traditional Medicine



Dr. E. Innocent

Vision

To become the leading institution in Africa in research, training and consultancy in traditional medicines for the healthy well-being of the people, and contribute to poverty reduction.

Mission

To research, teach and do consultancy on traditional medicines and promote the development of standardized herbal, plant derived and useful non-material aspects of traditional medicine for the improvement of the health of the Tanzanian people.

10.1 Highlights of Activities Implemented in 2014/2015

The academic year 2014/2015 brought successes in the activities and events of the Institute. Continued efforts were being put in place to develop, standardize and dispense quality herbal medicinal products, as nutritional juices, raw packed herbal materials or processed mixtures, syrup or extracts after being proven for their effectiveness and safety. The income accrued from sales of herbal medicine was TZS 44,729,500.00/=. Expenditure was TZS 34,727,676.65 and therefore the profit was TZS 10,001,822.35 during the year under review.

During that period the institute successfully worked with a private sector entity (GAIN-Marketplace) in a coaching and mentorship for marketing. Marketing is imperatively needed so as to expand service to the public and possibly link with pharmaceutical industries in scaling up production and distribution. The results of which has generated a market research questionnaire that will be used to identify market segments and consumer preference of some products produced at the Institute.

The Institute continue enrolling Master and PhD Students in Traditional Medicine Development, as well as training Traditional health practitioners the Continuing and Professional Development (CPD) in Traditional Medicine Development (Level I) courses whereby about 56 national and international participants attended. The trainings were offered in modules to upgrade skills of traditional healers and instil best practices to safeguard their professional and the public health of the consumers. On the other hand, the Institute is in preparation of another CPD training in Traditional Medicine development (Level II) that is geared at training different expertise in pharmaceutical aspects of traditional medicines to succeed the modules taught at Level II. Also, the Institute continued to host undergraduate and graduate students from School of Pharmacy (MUHAS), Chemistry and Botany Departments (UDSM) and College of natural science (UDOM).

Furthermore, during the reporting period, the Institute was involved in 14 Research projects at various levels of funding; attracted six research projects and five of them were completed. Also, the Institute produced 21 Publications, participated in five (5) exhibitions at national and international levels and there were 38 workshops or seminars or expertise meetings attended by students or staff.

10.2 Students' Matters

10.2.1 Academic Programmes

In 2009, the Masters of Traditional Medicine Development programme was initiated with the intention to accelerate research and generate more research results that will be the vehicle for growth in the area of traditional medicines and, possibly stimulate local traditional medicines industry. During the reporting period the Institute continued offering training programmes, which included: -

- MSc in Traditional Medicines Development,
- PhD
- CEPD course in Traditional Medicines Development level I

10.2.2 Students Admission, Enrollment and Achievements

During the reporting period, Traditional Medicine programmes successfully produced two (2) masters and one (1) PhD graduates. Three (3) other MSc and six (6) PhD students continued smoothly with their studies at the Institute.

Introduction of continuing education and professional development course in Traditional Medicine development for Traditional health practitioners attracted fifty-six (56) national and international participants during the period under review. In general, there is high number of PhD students than Masters due to limited sponsorship of MSc Trad. Med. Dev. programme that is offered by coursework and dissertation. For this reason, the institute is developing an MSc Phytomedicine programme, which will be offered by research and publication to attract donors who prefer funding project activities rather than class oriented activities. Table 26 below indicates the number of admitted student against those who were enrolled and successfully graduated in 2014/15 at Master and PhD levels: -

Table 27: Students Admission, Enrollment and Achievements - Institute of Traditional Medicine for 2014/2015 academic year

	MSc. Trad. Med. Dev	PhD
Admission	3	1
Enrolment	2	2
Completed/graduated	2	1

10.2.3 Students Output and Performance

During the Reporting period, one female PhD student and two Master female students graduated. The titles of their thesis are as following;

PhD Thesis:

Gladys Mokua (HD/MUH/K/168/2009): Evaluation of *Vitex* Species for Larvicidal activity against *An. gambiae* larvae.

MSc. Trad. Med. Dev. Dissertation.

- Zaituni Msengwa (HD/MUH/T.109/2012): Search for Antimicrobial and Antioxidant Compounds from *Mammea usambarensis* fruits
- Siri Abihudi (HD/MUH/T.199/2012): Documentation and Identification of Medicinal Plants threatened by Trade in Tanzania by Means of DNA Bar-Coding

10.3 Research and Publications

10.3.1 Research Projects and Links

In the reporting period, there were six (6) new projects (Table 27); five (5) research projects were completed (Table 28); while 14 research projects are on-going under different MUHAS clusters.

Table 28: New research projects initiated during the reporting period (2014/2015)

S/No.	Title	Project Team members	Funder/Donor
1	Effect of climate differences on antifungal activity and chemical composition of plants used to manage fungal infections in Tanzania	F. Machumi	AAS
2	Phytochemical studies of mosquito larvicidal compounds from ethanol extracts of four <i>Kotschy</i> species	Dr. Ester Innocent	IFS
3	Phytochemical and Antimicrobial activities of <i>Millettia</i> species from Tanzania	Mr. Baraka Samwel	CSIR-NAM S&T
4	Strengthening the value chain of Morizella [®] juice as innovative solution to provision of nutrients to low income communities-A Technical Award	Director, ITM	Global Alliance for Improved Nutrition (GAIN)-MarketPlace for Nutrious food
5	Phytochemical and Biological investigation of <i>Carissa spinarum</i>	Dr. Pax Masimba J. Mr. Ramadhan	Sida- MUHAS

	root extracts used in the treatment of chronic illnesses	O. Nondo	
6	Search for Novel Trypanocidal Agents from Selected Tanzanian Wild Mushrooms	Prof. V. Mugoyela, Dr. E. Innocent and Prof. R. Mahunnah	Sida-MUHAS

Table 29: Completed project during the reporting period

S/No	Title	Project Team members	Funder/ Donor	Year
1	Phytochemical studies of mosquito larvicidal compounds from ethanol extracts of four Kotschya species	Dr. Ester Innocent	IFS	2012-2014
2	Establishing capacity of mosquito-borne disease control at MUHAS to bridge academia and community needs.	Dr. E Innocent Dr. S. Magesa Prof A..Hassanali	DePHE-BC	2010-2013
3	Ecological Mapping and Phytochemical screening of Prunus Africana in Tanzania for sustainable production of Prunus used in management of Benign Prostatic Hyperplasia	Prof. Rogasian L.A. Mahunnah and Dr. JN Otieno	Sida/MU HAS	2012-2014
4	Toxicity evaluation of herbal products used for managing impotence by Traditional Health Practitioners in Dar es Salaam City.	Dr. Joseph N. Otieno	Sida MUHAS	2012
5	Identifying and monitoring trade in Tanzanian wild-harvested medicinal plants using innovative genomics-based DNA barcoding (Part of Post Doc Training).	Otieno, JN & Hugo de Boer	TASENE COSTEC H-WOTRO	2012-2014

10.3.2. Publications

The research output in forms of publications increased from 16 in 2013/2014 to 21 (31.25%) in 2014/2015. Table 30 shows the trend of publications of Journal articles and books over the last five trienniums.

Table 30: The trend of publications of Journal articles and books over the last five years

2000/2001-2002/3	2003/4-2005/6	2006/7-2008/9	2009/10-2011/12	2012/13-2014/15
6	23	38	36	62

10.3.3 Books Published

Joseph Jangu Magadula and Zakaria Heriel Mbwapbo. 2014: *Garcinia Plant Species of African Origin: Ethnobotanical, Pharmacological and Phytochemical Studies*. ISBN: 978-1-941926-10-9. Open Science Publisher, Park Ave, NewYork

10.4 Consultancies and Public Services

10.4.1 General

- The Director conducted a TV talk with MLIMANI TV of the University of Dar Es Salaam on educating the public on the role of Traditional Medicine and the Institute of traditional Medicine that was aired on 30th November, 2014.
- Dr. Kayombo presented a paper titled “*Traditional medicine practices Vs Conventional medicine in Tanzania*” during workshop of the American Volunteers in Tanzania at Landmark Mbezi Beach 9th November 2014.
- The Director participated in the Panel discussion about Bio-economy during the 4th Annual national science, technology and innovation conference and exhibitions organized by COSTECH on 25th June 2015 at JNICC, Dar es salaam

10.4.2 Specific

- Dr. Otieno, JN, filed a consultancy service with the National Land Use Planning Commission on medicinal plants used for management of Rheumatism in Tanzania
- Dr. Edmud Kayombo was appointed by the President as Chairman of the Traditional and alternative practitioners Council of the MoHSW for a 3-years tenure.
- Dr. E. Innocent was appointed as a national expert of the African organization standardization (ARSO) technical harmonization committee (THC-13 of ARSO) of African Traditional Medicine Standards and the Chairperson of the Mirror committee at TBS.

10.5 Staff Development

10.5.1. Training leading to degree award

- Mr. Ramadhani SO Nondo, an Assistant Research Fellow in Department of Biological and Pre-Clinical Studies continues with PhD studies at MUHAS

- An Assistant Research Fellow Mr. Mourice continues with PhD studies at Muhimbili University of Health and Allied Sciences (MUHAS).

10.5.2 Staff training attachments to other Institutions

- Dr. Pax Masimba completed a three months TWAS-DFG cooperation fellowship in Potsdam, Germany which started in December 1, 2014 to February 28, 2015
- Dr. Francis Machumi started Postdoctoral programme from January 2015 offered by the African Academy of Sciences under the CIRCLE (Climate Impact Research Capacity and Leadership Enhancement) Programme at University of Dar es Salaam.
- Joseph Otieno carried out extraction and purification of DNA of Aloe vera samples collected from Coastal Tanzania at Uppsala University - Sweden and Oslo University - Norway from 6th October – 7th November 2014.
- Baraka started a research-training programme on Phytochemical and Antimicrobial activities of *Millettia* species from Tanzania from CSIR-Indian Institute of Chemical Technology, Hyderabad, India from March 24th, 2015.

10.6 Major Procured Items, Work and Services

During the reporting period the Department of Biological and Pre-Clinical Studies procured a N₂ container, CO₂ incubator and a centrifuge, all aiming at improving *in-vitro* malarial testing and establishing a cell line laboratory.

The challenge with these equipments is the storage as there is not enough space at the departmental laboratory. In order to solve the problem the department plans to rearrange the instruments room to enable fitting of more equipment to ensure a dust free room.



Figure 13: N₂ container



Figure 14: Centrifuge



Figure 15: CO₂ incubator

The Department of Natural Products and Formulations procured new essential oil extraction machine, Cream mixer, Juice packing and cream filling machines. The installation of these machines has been done and have significantly improved working environment in the GMP lab.

However, the department has several problem of breakage of instruments, which need to be funded through projects or from Institute's Income self-generated income money.



Figure 16: Cream mixer coupled to cream filling machines



Figure 17: Juice packing machines

The Department of Medical Botany Plant Breeding and Agronomy is renovating a laboratory intended for molecular experiments including DNA bar coding of plants materials and samples. Once completed it will serve in the identification of traditional medicine that cannot be identified morphologically because are already processed as powders, roots etc.



Figure 18: On-going renovation of the plant DNA barcoding laboratory at ITM

10.7 Infrastructure Development

The Department of Medical Botany Plant Breeding and Agronomy continue cultivating some medicinal raw materials in the Lushoto farm including *Cynara scolymus*, *Plantago lanceolata* and *Artemisia affra* and in the Meru farm and also at a plot at FTI in Arusha. The Kongowe farm has been selected for planting *Hibiscus*. The Department also wishes to spearhead the establishment of a Medicinal Botanical garden at Mloganzila campus. Thus in the reporting period it had an opportunity to visit Egerton University of Kenya which has a botanical garden for benchmarking. The Exploratory visit had resulted into submission of developing a mini-proposal aiming at initiating the establishment of boundaries and networks of the envisaged botanical garden.



Figure 19: Prof. Apolinary Kamuhabwa, Director of Planning and Investment, Mlonganzila Campus planting *Podocarpus* sp at Egerton university botanical garden. Standing on the right is Dr. Joseph. N. Otieno, Head of Department of Medical Botany Plant Breeding and Agronomy



Figure 20: Dr. Ester Innocent, Director of the Institute of Traditional Medicine watering *Zanthoxylum chalybeum* after planting in the Egerton university botanical garden

10.8 Finances and Investment Activities

10.8.1 Internally Generated Funds

The institute continued to generate income through sales of herbal medicine from the outlet allocated at the Institute building. The income from sales of herbal medicine was TZS 44,729,500.00, Expenditure was TZS 34,727,676.65; and a profit of TZS 10,001,822.35 generated this year. In general, income has been increasing with expansion of production activities. Below is the general trend of sales collection and profit for the past three years.

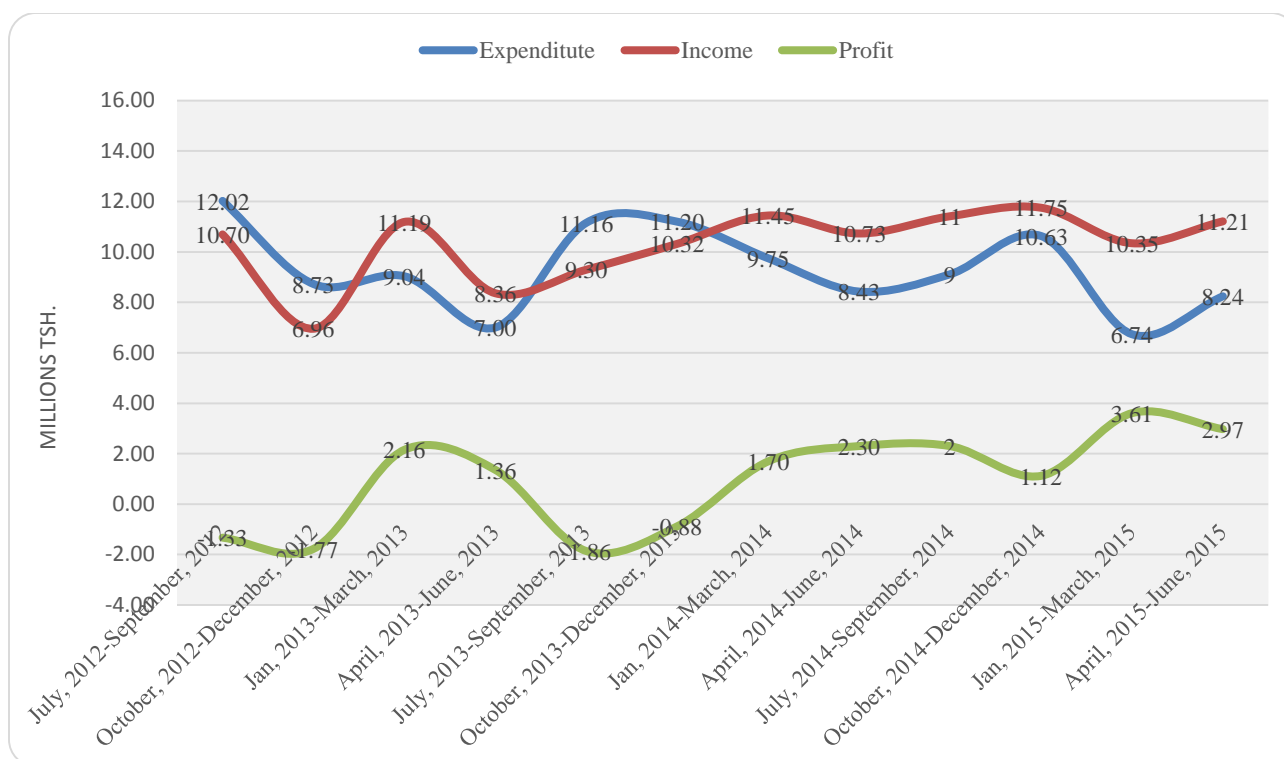


Figure 21: Quarterly income-expenditure trend due to productions and dispensing of herbal medicinal products from ITM from 2012 to 2015 triemister.

10.9. Support Service

10.9.1 Exhibitions

- Mwalimu J. K. Nyerere international fair on 29th July 9th July, 2014 and during the Science and Technology Innovation day on 6th July, 2014.
- The institute participated in exhibitions during the 5th Higher Learning Institution which was held in Arusha from 11st -13th August, 2014.
- The Institute participated in exhibitions during the 3th Academia –Private Sector Partnership Forum (APSPF) that was organized by IUCEA and held in Kigali, Rwanda from 22-24, October, 2014.
- The Institute participated in exhibitions during the 3rd scientific conference of Muhimbili University of Health and Allied sciences 28th -29th May 2015.
- The Institute participated in exhibitions during fourth Annual National Science, Technology and Innovation Conference and Exhibitions on 24th – 26th June 2015 at JNICC, Dar es Salaam.



Figure 22: The President of United Republic of Tanzania his Excellency Jakaya Mrisho Kikwete making a comment to Mr. Benson Peter when toured the ITM exhibition pavilion during the 4th Annual National Science, Technology and Innovation conference and exhibitions on 24th – 26th June 2015 at JNICC, Dar es salaam.

11.0 Directorate of Postgraduate Studies

11.1 Introduction



Prof. O. Ngassapa

The Directorate of Postgraduate Studies, in collaboration with the schools, institutes and other directorates, has the responsibility of promoting, marketing and monitoring the conduct of postgraduate training at the University. During the reporting period the Directorate processed admissions of postgraduate students in various programmes, reviewed postgraduate proposals, processed examination results and facilitated revised curricula to align with the guidelines.

Vision

The vision of the Directorate of Postgraduate Studies is to be an excelling Directorate in training and supplying quality and highly competent specialists and super-specialists to meet the national needs in health and health related fields in Tanzania.

Mission

The Directorate provides in Tanzania a place where competent specialists and super-specialists in health and allied sciences will be trained to meet the national needs for quality health services and research; as well as provide human resources for enhancing management of training institutions in health and allied sciences.

11.2 Enrolment into postgraduate programmes

11.2.1 PhD degree programmes

During the reporting period the directorate continued to enroll PhD students into the University programmes. During academic year of 2014/2015, a total of five (5) students were granted with full PhD registration and six (6) were provisionally registered, which made a total number of 11 PhD students. Among them 6 (55%) were females.

11.2.2 Master degree programmes

During academic year 2014/2015 a total of 543 students were enrolled in Master degree programme in five Schools and one Institute. Among students enrolled in Master programmes 234 (43%) were females. Out of 543 enrolled, 536 (99%) were enrolled for Master degree by course work and dissertation, and 7 (1%) Masters of Science by research. There was an increase of 5% compared to the number of students registered during last year.

Table 31 below summarizes the number of Master degree students enrolled by School/Institute and gender.

Table 31: Summary of enrolment of Postgraduates for Academic Year 2014/2015

School/Institute	Male	Female	Total
Medicine	190	109	299
Pharmacy	10	11	21
Dentistry	11	4	15
Nursing	8	22	30
School of Public Health and Social Science	82	86	168
Traditional Medicine	3	0	3
Master of Science by Research	5	2	7
Total	309	234	543

11.3 Students Research Proposals

The Directorate of Postgraduate Studies facilitated the review of Master and PhD proposals for ethical clearance in collaboration with the Directorate of Research and Publications. A total of 207 Master students' research proposals were reviewed during the reporting period.

11.4 Postgraduate Selection

The Directorate through the Joint Postgraduate Selection Committee under the Directorate of Postgraduate Studies met to recommend applicants for postgraduate studies, discussed applications for the year 2015/2016. There were 622 applicants out of whom 469 (75.4%) were recommended for admission. Majority of the applications were in the School of Medicine and School of Public Health and Social Sciences. Table 23 shows the number of applicants recommended according to the schools and institute.

11.5 Examinations results

The Directorate of Postgraduate Studies through Senate Higher Degrees Committee (SHDC) processed University Examinations results as follows: -

A total of 443 postgraduate students sat for semester 2, 4 and 6 University examinations in July 2014, 360 (81.2%) passed their examinations. Table 32 shows a summary of students' performance.

Table 32: Summary of the applicants recommended for admission for postgraduate studies

School/Institute	Applicants Recommended	Applicants not recommended	Total Applicants
Medicine	252	47	299
Pharmacy	14	1	15
Dentistry	13	0	13
Nursing	39	8	47
Public Health and Social Sciences	143	95	238
Traditional Medicine	8	2	10
Total	469	153	622

A total of 452 postgraduate students in semester 1, 3, and 5 sat for University examination in March, 2015. Three hundred ninety-three (84.7%) passed their examinations as indicated in table 33 at first sitting.

11.6 Postgraduate Graduates

The sixth day of December, 2014 was a graduation day. One hundred eighty-four Master candidates graduated in various programmes in the different schools and institute at MUHAS and one candidate was awarded a PhD degree in Traditional Medicines Development. Among the candidates who graduated 75 were females.

Table 33: Summary of students' results for the July 2014 examination

S/N	School/Institute	Sat for examination	Failed	Passed	Postponed examinations	Had Frozen Studies	Resumed Studies	Discontinued from studies
1	Medicine	239	36	195	3	2	0	8
2	Pharmacy	22	2	19	0	0	0	1
3	Dentistry	9	3	6	2	0	0	0
4	SPHSS	149	19	125	4	0	0	5
5	Nursing	21	7	14	0	0	0	0
6	ITM	3	2	1	0	0	0	0
	Total	443	69	360	9	2	0	14

Table 34: Summary of students' results for the July 2014 examination

S/N	School/Institute	Sat for examination	Failed	Passed	Postponed examination	Had Frozen Studies	Resumed Studies	Discontinued from studies
1	Medicine	241	31	202	1	2	0	8

2	Pharmacy	19	1	18	0	0	0	0
3	Dentistry	9	3	6	2	0	0	0
4	SPHSS	151	24	124	4	0	0	3
5	Nursing	30	2	28	0	0	0	0
6	ITM	2	0	2	0	0	0	0
Total		452	58	383	7	2	0	11

(c) One PhD candidate defended successfully her thesis.

Table 35: Summary of the postgraduate graduates in the year 2014/2015 by gender

S/N	PROGRAMME	M	F	TOTAL
1	Doctor of Philosophy	0	1	1
2	Master of Science Super-Specialties	10	0	10
3	Master of Medicine	52	29	79
4	Master of Dentistry	6	0	6
5	Master of Pharmacy	7	4	11
6	Master of Public Health	16	29	43
7	Master of Nursing	2	4	6
8	Master Traditional Medicines Development	0	2	2
9	Master of Science	14	6	24
10	Master of Science by Research	3	0	3
Total		110	75	185

11.7 Curriculum Revision

During the reporting period in collaboration with the Schools/Institutes, the Directorate of Continuing Education and Professional Development and Directorate of Quality Assurance, the Directorate of Postgraduate Studies continued to facilitate revision of all postgraduate curricula to align with the TCU guidelines. Curricula of two new programmes were developed and enrolment of students would start during academic year 2015/2016. The programmes are Master of Public Health (MPH) – Distance Learning and MSc Health Information Management (MSc-HIM).

12.0 Directorate of Undergraduate Education

12.1 Introduction



Prof. D. Simba

The Directorate of Undergraduate Education processed the application of both direct and equivalent undergraduate students for 2014/2015 academic year for various programmes. The total number of applications was 636 of which the admitted students were 605. This is higher than in 2013/14 academic year where 425 students were registered. Table 36 shows the

number of students who applied and registered for the various undergraduate programmes as follows:

Table 36: Total number of Undergraduate candidates selected and Registered 2014/15

Programme	Selected	Number of students registered/On studies
Doctor of Medicine	225	219
Bachelor of Medical Laboratory Sciences	113	105
BSc. Radiotherapy Technology	19	19
Doctor of Dental Surgery	56	55
Bachelor of Environmental Health Sciences	49	46
Bachelor of Pharmacy	97	90
Bachelor of Science Nursing	54	51
Bachelor of Science Nursing (Midwifery)	21	21
Total	636	605

During the reporting period the Directorate of Undergraduate Education also processed various applications for both Diploma and Advanced Diploma programmes for 2014/2015 academic year. A total of 636 new students were admitted in various Diploma and Advanced Diploma programmes. This is an increase of about 8.3% compared to previous year where 587 students selected during the previous year.

During the academic year 2014/2015 the Directorate of Undergraduate Education oversaw the registration of a total number of 1926 students into various degree programmes. Of these, 584 (30.3%) were female students. During the 8th MUHAS Graduation ceremony a total of 365 students graduated in various undergraduate programmes of which about a quarter of them (34.3%) were females.

13.0 Directorate of Planning and Investment – Muhimbili Campus

13.1 Introduction



The mandate of the Directorate of Planning and Development was changed and a new Directorate of Planning and Investment Muhimbili Campus was Established in 2013 as part of improving efficiency and functions. The Directorate has three departments, which includes Planning, Investment and Resource Mobilisation. The Directorate continued with the responsibility of coordinating the development and monitoring of the University strategic plans.

Dr. D. Gasarasi

Schools and Directorates develop strategic plans in line with the University Corporate Plan. It is also responsible for monitoring and coordinating timely unit specific implementation of the five year rolling strategic plan (FYRSP) and reporting on progress of Implementation.

The new Directorate will also promote, engage and monitor investment activities at the University for the purpose of income generation and growth. The directorate will focus on developing MUHAS investment portfolio through identification of potential investment avenues and improving productivity on already available investments. Directorate also focuses on resource mobilisation for the University.

13.2 Strategic Planning Activities

In August 2015 the Directorate organized a strategic planning workshop whose main objectives were to present and discuss the progress of Implementation of unit specific Five Year Rolling Strategic Plans (FYRSP) 2014/2015 to 2018/2019 and roll it forward to 2015/2016 to 2019/2020.

13.3 Land Development

During the period under review Directorate of Planning and Investment implemented a number of activities as follows;

- Directorate coordinated the engagement of a consultant who will establish the market value of all MUHAS plots/lands for investment purposes.
- During the period under review, a tender for drawing up a proposal and feasibility plan for final award is in final stages.
- The Directorate develop a draft of MUHAS investment policy, the policy is pending for approval by relevant University organ
- During the period under review the Directorate prepared proposal for expansion of the Bagamoyo Training Unit submitted to University management for review

13.4 Marketing of the University Activities

During the reporting period, the Directorate coordinated and participated in the 39th International Trade Fair held at TAN TRADE – Mwalimu Nyerere grounds from 28th June to 8th July 2014. During exhibition MUHAS got an opportunity to display and promote various products and services offered by the University. Simple medical diagnostic services were provided including screening for sugar, malaria examination and dental check up were carried out. In addition, during the entire period of trade fair, exhibitors were able to market MUHAS programmes as well as the envisaged MUHAS Medical Centre to be constructed at Mloganzila.

In addition to that the Directorate of Planning and Investment coordinated the preparation and participated in the Higher Education Institutions Exhibitions organized by TCU, which took place from 20st to 22nd May 2015. The theme of the exhibition was *"building a knowledgeable, Accountable and progressive Society through higher Education, Science and Technology"*. The MUHAS pavilion attracted lots of people who were interested in the variety of items displayed

Furthermore, the Directorate coordinated the preparations and participated in the Academia – Private Partnership Forum and Exhibitions, which took place from 21th– 23th October 2015 at Imperial Golf View Hotel - Entebbe Uganda.

14.0 Directorate of Planning and Investment – Mloganzila Campus

14.1 Introduction



In order to address the shortage of Human Resource for Health (HRH) in the country, MUHAS has started developmental activities for establishing a New Campus at Mloganzila. The development of MUHAS campus at Mloganzila has received considerable support from the government and development partners. During the reporting period, a number of developmental activities and initiatives were undertaken as follows: -

Prof. A. K. Kamuhabwa

14.2 Construction of Basic Infrastructure at Mloganzila

In order to develop Mloganzila land into a University Campus, basic infrastructure including access roads, water and electrical power supply systems are required.

A contractor engaged by TANROADS has already completed construction of a 4km of tarmac road from Kibamba CCM to Mloganzila. The road was completed in February, 2015 and it is

currently in use. Completion of this road has facilitated transportation of materials to the construction site for the Medical Center.



Figure 23: Tarmac road from Kibamba CCM to Mloganzila has been completed and it is in use

14.2.1 Water supply:

Water supply system has already been connected at the site to support construction of the Medical Center. Connection of permanent water supply system to the hospital has also started. Procurement of materials and cost of installation have already been approved for the contractor on site to proceed with the work.

14.2.2 Electrical Power Supply:

Temporary electrical power supply was installed at the site to support construction of the Medical Center. Procurement of a 2000KVA transformer and accessories for permanent electrical power supply to the hospital had also started. The work was performed by the contractor who is currently constructing the Medical Center.

14.2.3 Construction of MUHAS Medical Center

Construction of the basement of the hospital was completed in January, 2015. The contractor was continuing with civil, mechanical and electrical works in the sixth floor with installation of column and concrete slabs.

Bi-weekly site meetings were conducted at the site to monitor progress of construction. According to the construction schedule, the hospital will be completed in June 2016.



Figure 24: A photograph showing progress of construction of the Medical Centre at Mloganzila as of June 2015

14.2.4 Supplying and installation of Medical Equipment for the MUHAS Medical Center

During the reporting period the supplier of medical equipment for MUHAS Medical Center procured the necessary equipment. The contract between MUHAS and the Supplier (Samsung C&T Corporation) was signed on 16th December, 2014. A list and specifications of medical equipment had been established. Medical equipment delivery schedule was developed between the Supplier of Medical Equipment, consultant and contractor on 11th and 12th June, 2015 at the site. Proceedings of the meetings were presented to the Steering Committee for Operationalization of the Medical Center on 15th June, 2015. Delivery and installation schedule of the medical equipment was agreed by all concerned parties.

14.2.5 Visit of the Parliamentary Committee for Social Services to Mloganzila

During the reporting period the Parliamentary Committee for Social Services visited Mloganzila on 9th March, 2015 to assess progress of the construction of the MUHAS Medical Center. During the visit, the committee met with the representative from the Ministry of Education and Vocational Training (MoEVT), MUHAS Management, Consultant and Contractors of the Project. The Committee received progress report from the contractor and MUHAS management. Among the challenges mentioned during the presentation were; funds for establishment of academic and support facilities to support functioning of the hospital once it is completed in June 2016; disbursement of TZS 18,000,000,000 as part of the funds (USD 18,040,000) which was committed by the government to support construction of the Medical Center and approval of the budget for employment of the required human resources for the Medical Centre.

The committee members were delighted by the progress, made by the University management in the implementation of this project. It was discussed and agreed that all the issues that were raised are pertinent in order to enable the hospital to function when its construction is completed. It was emphasized that the priority funds to be included in the budget for the financial year 2015/2016 was TZS 18,000,000,000 which is part of the commitment by the government for construction of the hospital. Therefore, the MoEVT was directed to include these funds in the budget. The committee promised to continue providing support to MUHAS for the project.



Figure 25: Parliamentary Committee for Social Services inspecting ongoing construction of MUHAS Medical Centre during their visit at Mloganzila

14.2.6 Visit of the Minister of Education and Vocational Training to Mloganzila

During the period under review, on 22nd January, 2015, the Minister for Education and Vocational Training (MoEVT) Hon. Dr. Shukuru Kawambwa visited Mloganzila for the purpose of assessing the progress for construction of the Medical Center. During the visit, the Minister received construction progress report from the Contractor. Water connection and its availability to support construction activities was one of the challenges mentioned by the contractor. In response, the Minister promised to communicate with the Minister for Water in order to expedite installation of water supply system at the site.

The Minister also received the project progress report from MUHAS Management citing progress and challenges in the establishment of the new campus at Mloganzila. He was informed that, MUHAS had already procured a Supplier for supplying and installation of Medical equipment. The Medical Center is expected to be completed by June, 2016, and it will be equipped with modern medical equipment. The Minister was informed that in order for the Hospital to start operating after construction, the first batch of 968 employees of different carders

will be required. He was informed that the budget for these staff amounting to about TZS 23,000,000,000 has been included in the budget for the financial year 2015/2016. He was also informed that proposals requesting financial support for construction of academic and supporting facilities were developed and submitted to the MoEVT. The University management thanked the Minister for helping to disburse TZS 14,464,000,000 which is part of the USD 18,040,000 which was committed by the government to support construction of the Medical Center. The management requested the Minister to facilitate disbursement of the remaining funds in order to support construction of the hospital.

The Minister was delighted with the progress made and promised to support the MUHAS Management and Contractor to make sure that the project is completed on time.



Figure 26: Minister of Education and Vocational Training Hon. Dr. Shukuru Kawambwa receiving explanation of the ongoing construction activities for MUHAS Medical Centre from the Consultant and Contractor at the site

14.2.7 Visit of consultants from Yonsei University and Korea Foundation for International Health to MUHAS

During the report period the Korea Foundation for International Health (KOFIH), a government funded organization under the Ministry of Health and Social Welfare of South Korea and Representatives from Yonsei University of Korea visited MUHAS from 2nd to 6th, February 2015. The purpose of the visit was to discuss with MUHAS the modalities for technical support for operationalization of the MUHAS Medical Centre at Mloganzila. During the meeting it was clarified that, KOFIH will be an agency of funding and monitoring operationalization programmes while Yonsei University will be providing consulting services on training and other technical issues. As the part of the agreement, 12 MUHAS staff attended capacity building training for operationalization of the MUHAS Medical Centre at Yonsei University in Korea from 20th to 24th April, 2015.

From 18th to 21st May, 2015 a delegation of Experts from Yonsei University visited MUHAS to provide training for operationalization of the Medical Centre after being completed. This four days' workshop was organized as a refresher course to the newly appointed members of the steering committee for operationalization of the MUHAS Medical Center and other professional staff to develop plans on how the hospital will be managed for provision of teaching, research and service delivery.



Figure 27: Group photograph of the participants from MUHAS and facilitators from Yonsei University of South Korea during the capacity building workshop held at MUHAS in May, 2015

14.2.8 Establishment of Academic and Support Facilities at Mloganzila

During the year under review financial proposal for construction of academic and support facilities at Mloganzila was developed and submitted to the Government for application of a concession loan from the Government of Japan as directed by the Government. Other two proposals for establishment of academic and support facilities were developed and submitted to the National Housing Corporation (NHC)/Tanzanian Investment Bank (TIB) and Africa Integras. Negotiations between the University management and NHC/TIB are ongoing. Due diligence for the proposed accommodation facilities was completed by Africa Integras.

14.2.9 Restoration of Site Boundaries at Mloganzila

The contractor for planting trees around the University land at Mloganzila has completed phase one of the work of planting and maintaining the trees surrounding Mloganzila land. Planting of trees in the remaining part of the boundary is ongoing.

14.2.10 Establishment of the Centre of Excellence in Cardiovascular Sciences at Mloganzila

During the period under review Loan Agreement between the Government of Tanzania and African Development Bank (AfDB) for the establishment of the Centre of Excellence in Cardiovascular Sciences was signed on 12th December, 2014. The loan amounted to USD 10,190,000. The Tanzanian government will provide USD 750,000 as co-funding for this project.

The Centre will perform the core functions of the university, which are research, training and service provision and will train in all aspects of primary, secondary and tertiary prevention of the cardiovascular diseases. The Centre will be constructed at Mloganzila campus. Preliminary preparations for implementation of the project were completed in June, 2015. A Project Steering Committee and Project Coordination Unit were established and annual, Procurement and Training Plans were developed and approved by AfDB on 23rd June, 2015. The special account at the Bank of Tanzania for depositing project funds (foreign component) and the bank account for local currency in a commercial were created. Request for disbursement of funds from AfDB for the first half of the year was also processed. The project will be implemented in two phases. The project has the following components, which will be covered in the first phase of the project:

14.2.10.1 Construction of a multipurpose building to support the Center of Excellence in Cardiovascular Sciences at Mloganzila campus

The first phase of this project will include construction of a multipurpose building to accommodate; student seminar rooms, class rooms, auditorium, e-learning and video conferencing unit, library, primary prevention research laboratory, cafeteria, staff and student offices. A 100-bed hospital for cardiovascular diseases will be constructed in the second phase of the project.

14.2.10.2 Faculty Training & Curriculum Development

This will include training of 18 specialists in cardiovascular sciences (PhD, Masters and middle levels carders), curriculum development for masters, super-specialty and PhD training programmes in the field of cardiovascular sciences, and establishment of collaboration with world class institutions in cardiovascular sciences for skills and technology transfer.



15.0 Directorate of Quality Assurance

15.1 Introduction



Dr. G. H. Leyna

The Directorate of Quality Assurance, which was established in 2013, has continued to execute its functions through the development of key policies and procedures to guide quality implementation of the core university functions. The directorate strives to ensure that quality assurance is embedded in all institutional units and day to day functions of each staff at the university. The directorate mandate is to ensure that the institution can guarantee to with confidence and certainty to all its constituencies that the standards and quality of its educational provision are being maintained and enhanced.

15.2 Reporting period achievement

During the academic year 2014/15, the directorate has involved itself in several activities.

Recruitment

The directorate is working closely with the director of human resource management and administration to recruit quality assurance officer and administrative officer.

Policy development

Quality assurance policy has been developed and set to stakeholders for review. This policy is intended to guide all stakeholders on how to ensure that quality assurance measures are observed during the pursuance of their functions.

The University self- assessment has been completed. The document has been submitted to management for final review.

The directorate participated in facilitating the review of postgraduate curricula documents for accreditation by Tanzania Commission for Universities (TCU). This included a TCU supported workshop by members of the senate higher degrees' committee.

Guidelines for handling of examinations and a report on the quality of MUHAS web were written and submitted.

The directorate has continued to facilitate faculty training to improve the quality of teaching.

16.0 Directorate of Research and Publications

16.1 Introduction



Prof. M. Moshi

The Directorate of Research and Publications is the University's hub for coordinating research and innovations. Since its inception in 2003 the directorate has been developing structures and policies for improving research management. Since 2011 there are in place guidance policies, including The Directorate of Research and Publications is the University's hub for coordinating research and innovations. Since its inception in 2003 the directorate has been developing structures and policies for improving research management.

Since 2011 there are in place guidance policies, including Research Policy Guidelines, Intellectual Property Policy and Guidelines, and Guidelines on Conflict of Interest and

Research Integrity. Likewise, the University Research agenda was developed in 2011.

During the reporting year the Directorate started reviewing all its guiding documents that were developed in 2011.

Vision

To be a leading center for coordinating quality health and related research that responds to national, regional and global challenges.

Mission

To provide a conducive environment for research in health and related fields, promote the conduct of research that is in line with Tanzania's National Research Agenda and enhance the University's capacity to advance frontiers of knowledge.

16.2 Organizational matters

The University revised its organizational structure leading to formation of new units. The Directorate of Research and Publications was one of units whose structure was revised leading to approval of 4 units: (a) Institutional Review Board (IRB) (b) Research Development (c) Office of Sponsored Projects (OSP) (d) Intellectual Property Unit. The Directorate has one Senior Research Administrator for the IRB and one Senior Administrator for OSP units but it has yet to get administrators for the remaining two units. During the year under review permits to recruit more staff were sought. Draft Standard Operating Procedures (SOPs) for the 4 DRP units were developed for units to become fully operational. Job description for each unit was in preparation.

16.3 Capacity building

During the reporting year the Directorate in collaboration with Dartmouth Medical College, USA and University of California at San Francisco (UCSF), USA received a Forgarty International grant for strengthening the Office of Sponsored Projects. One senior Administrator for OSP, one accountant and one PMU officer attended a two weeks training in the USA for purposes of improving skills in research administration. The directorate also participated and coordinated grant application to Sida. A new agreement for 2015-2020 was signed between MUHAS and Sida whereby 82,000,000 SEK (~19,680,000,000 TZS) was granted. The grant will train 37 PhDs, 23 MSc and 6 Post-doctoral students. The grant will also provide support in research infrastructure development.

16.4 Development of policies and guidelines

16.4.1 Professorial Research Chairs Policy

The University recognizes the role played by its senior academic staff in promoting research, mentoring young faculty and supporting the core functions of the University through indirect costs deducted from research grants. The University intends to establish funded research chairs to facilitate retention of productive senior staff and continue to tap their expertise and experience to bring social economic development to the nation. The Directorate therefore drafted a Professorial Research Chairs Policy to be processed through the University machinery and eventually be approved.

16.4.2 Review of IRB Standard Operating Procedures

In the reporting period the Directorate reviewed the SOPs for the MUHAS Institutional Review Board with the main purpose of making our IRB independent. The revised SOPs will be approval through the University machineries after developing a proposal to disengage the IRB from the SRPC.

16.4.3 Formation of a University Policy Briefs Committee

During the reporting period the Directorate developed a Policy Briefs Committee consisting of representatives from the five (5) Schools, Directorate of Library Services, Institute of Traditional Medicine and Institute of Allied Health Sciences. The Committee started its activities, mainly by establishing linkages with important partners and identifying opportunities for capacity building. The Committee Chair is now a member of the Senate Research and Publications Committee; and through this Committee it will channel its proceedings to Senate. The 2015-2020 Sida grant will provide for training of the policy briefs committee.

16.5. Research Management Activities

16.5.1 Building capacity for researchers to access research grants

In the reporting year the directorate organized the following trainings:

- Research Administration Training was conducted from 20th to 22nd October 2014. The training focused on Research administration in all areas, pre and post award management
- Research and Grant Writing Training was held at SOSMED Room from 20th to 24th April 2015 sponsored by INASP
- Authorized Organization Representative (AOR) Training was held at SOSMED Room, from 28th to 29th April 2015.
- National Council of University Research Administration Region 1 Spring meeting held from 4th to 6th May 2015 in Portland, Maine, USA, provided sessions for various training in Research Administration matters
- Onsite Training and experience sharing at Dartmouth, Hanover, USA, was held from 7th to 12th May 2015. The training focused on Research Administration
- Publishing Science meeting was held from 29th June to 2nd July 2015 at New School of Public Health Building, MUHAS.

16.5.2 One-day Research Seminars

During the year under review, the Institute of Traditional Medicine, Directorate of Library Services, School of Medicine in collaboration with the School of Public Health and Social Sciences, School of Nursing, School of Dentistry and the School of Pharmacy organized one-day research seminars. The research seminars focused on improving staff grant proposals and postgraduate student proposals.

16.5.3 Small Grants application processing

Thirteen small grants applicants received ethical clearance and funding. During the reporting year, the Directorate introduced a small grants agreement, which obliges recipients of small grants to publish the findings emanating from their studies; failure of which leads to penalty.

16.5.4 Review of Proposals

The Directorate coordinates the review of proposals submitted by faculty and students through the Senate Research and Publications Committee and its Expedited Review Sub-Committee. It is also responsible for monitoring progress of clinical trials implemented by faculty and collaborators at the University. A total of 238 proposals were reviewed during this reporting period compared to 182 for the year 2013/14. This is 31% increase of proposals submitted compared to the previous year's reviews. Table 37 below summarizes the proposals submitted and reviewed in 2014/15.

Table 37: Summary of the requests submitted for review

Type of Submission		Number
Students	Postgraduates	149
	Electives	7
	Undergraduate	8
Others	Request for Ethical Clearance	20
	Protocol Amendments	20
	Requests for Funding	34
	Total	238

16.5.5 International Collaborative Projects

Research conducted at the University continues to be largely funded by foreign donors. In the period July 2014– June 2015 the University had 112 ongoing projects out of which 5 were new projects. By end of the fiscal year June 2015 active international collaborative projects were 106 of which 5 were new projects (Figure 28). Project funds awarded during the fiscal year were TZS 576,153,748.71 and USD 8,409,865.55. The overheads retained by the University as institutional costs amounted to TZS 43,048,425.84 and USD 621,974.65, respectively. There was 33% increase of institutional overheads received (TZS 137,257,047 and USD 418,899) compared to 2013-2014 collections. Progress report for the project are presented in Appendix I.

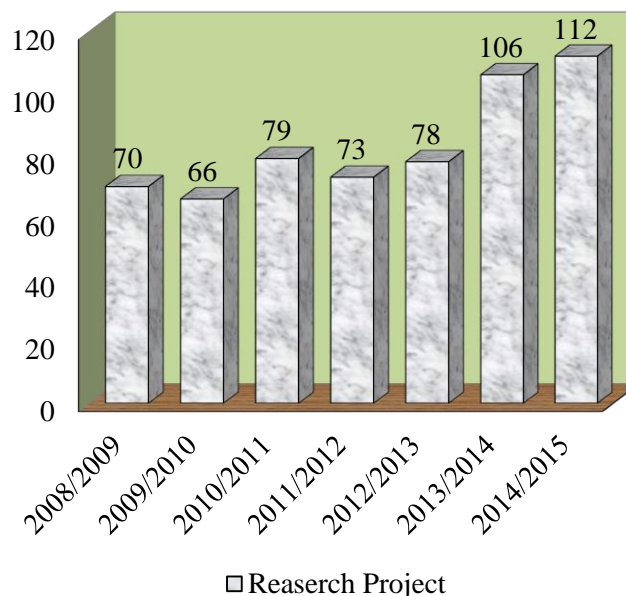


Figure 28: Trend of Research projects from 2008/2009 to 2014/2015

16.5.6 Publications Output

During the reporting period the Directorate of Research and Publications in collaboration with the Directorate of Library Services successfully revived publication of the MUHAS Research Bulletin. The 2009 – 2012 volumes had already been compiled and printed by the end 2015. The Research Bulletin for 2013 was already printed, while the research bulletin for 2014 was compiled ready for publishing. During the reporting period a total of 495 publications including 308 journal articles, 168 dissertations, 17 conference proceedings and 2 book/research reports were published. Compared to 2013/2014, there was no significant increase of journal articles (306), dissertations (154) and book/research report (1), however, a significant fall in the number of conference proceedings was noted (from 137 to 17 in 2014/2015). This could be attributed to decreased funding to support researchers to attend and present their findings in the national and international conferences (Appendix II).

16.6 Research Dissemination

The Directorate participated in the 3rd MUHAS scientific conference held in May, 2015. The conference was largely supported by the DRP through its Sida research capacity strengthening funds. Publications and presentations in the national and international conferences were the other avenues for the dissemination of research findings during the reporting period. There were changes in policy and best practices emanating from research findings. The research findings on malaria patients on antiretroviral therapy showed a need for a prolonged anti-malarial treatment. Likewise, research outcomes from studies on the optimization of HIV and tuberculosis co-treatment in Tanzania; a *novel* approach in the management of genetically related diseases: lessons from sickle cell disease in Tanzania and community-based interventions against sexual violence in Tanzania have had impacts on policy and best practices.

16.6.1 Networking

The Directorate participated in the monthly teleconferences with Dartmouth Medical College and UCSF to discuss collaborative activities to improve the performance of the Office of Sponsored Projects. The Deputy Director for Research and Publications and Administrators in the directorate and other units of the University participated in the annual conference of the Association for African Research Administrators, which was held in Kampala Uganda in November, 2014.

17.0 Directorate of Information and Communication Technology



Mr. Felix Sukums

17.1 Introduction

The Directorate of ICT is mandated to harness and mainstream information and communication technologies (ICT) into all the operational and management functions of the University. The directorate ensures that new developments in ICT are embraced and used to promote the vision, mission and core functions of the University.

17.2 Activities Performed During the Reporting Period 2014/15

In-line with the mandate, the Directorate carried out a number of activities in the period under review as stipulated in the sections below: -

Internet and Network Infrastructure

The Directorate of ICT managed and maintained the ICT infrastructure to ensure reliable access to intranet and internet services.

Installation and Maintenance of Local Area Network (LAN)

During the year under review, the Directorate managed and maintained the MUHAS LAN through troubleshooting of network problems, upgrading network active components and installed of new network links. The Estates Building was connected to the University LAN and the PABX system while the Newborn Screening (NBS) project was connected to the LAN and linked specifically to EPICOR.

Installation, Management and Maintenance of WIFI hotspots

One strategy of improving the teaching and learning environment is by ensuring that students can access internet resources. The Directorate installed Access Points in Lecture Halls four and five as well as the Postgraduate Computer Lab.

MUHAS Website

During the period under review, redevelopment of the University Website was initiated by gathering of information/content for updating from all units of the university. Re-designing was initiated and reconstruction of the website was under development by the e-Government Agency.



Figure 29: Screenshot of the new MUHAS website which is under construction

Information Systems Implementation and Support

During the period under review, the ICT Directorate provided support to a number of electronic management information systems (MIS) in the University. These included the Student Academic Records Information System (SARIS), the Financial Management System (EPICOR), Human Capital Management Information System (HCMIS), e-learning management system, Library Information Systems, and Dental Information Management System (DIMS) at the University Dental clinic.

17.3 Training on SARIS

In the year under review, the Directorate of ICT in collaboration with the Directorate of Continuing Education and Professional Development (DCEPD) conducted two trainings on the use of SARIS to University Academic Staff. Furthermore, online registration was done using SARIS for all Undergraduate and Diploma Students.

17.4 EPICOR

The directorate continued to support EPICOR system operations in collaboration with the directorate of Finance and the software vendor (Soft-Tech Consultants Limited). The activities conducted include technical support, troubleshooting and data backup and recovery.

17.5 Institutional Repository

The Directorate continued to host, maintain and support the institutional repository system (DSpace). In collaboration with the Directorate of Library Services (DLS), two trainings on DSpace operations were facilitated.

17.6 Open Journal System

The Directorate continued to host, maintain and support the Open Journal System. In collaboration with the DLS. One training on Open Journal System operations was facilitated.

17.7 Library Information System (KOHA)

The Directorate continued to host, maintain and support integrated library information system (KOHA). KOHA was upgraded from version 3.12 to version 3.20. The directorate of ICT trained Library staff on the use of all KOHA modules including Acquisition, serials, cataloguing and patron.

17.8 ICT Teaching, Learning and Research Activities

The DICT continued to collaborate with the Directorate of Library Services (DLS) to offer the Information Technologies (IT 100) course to all first year undergraduate and diploma students. During the period under review, 842 students received were trained through lectures and hands-on exercises. The Directorate in collaboration with DLS and the Harvard Medical School was a project that will give medical students access to online medical resources (Up-to-date database).

17.9 Practical Training

The directorate continued to offer practical training to ICT students from different Universities and colleges in the country. In the year under review, twenty-seven (27) students were accommodated by DICT to do field work (22 field students and 5 were graduated interns).

17.10 Research and Publication Activities

The directorate continued to participate in research activities in the year under review in which six (6) peer-reviewed journal articles were co-authored and published and two abstracts were presented in the 3rd MUHAS scientific conference. The directorate continued to provide ICT support to various research activities.

17.11 ICT User Support

User support is one of the core activities of the DICT to ensure efficient and effective use of ICT infrastructure, systems and services. During the period under review, the directorate continued to offer technical support to staff and students in the use of ICT systems and services. The directorate has provided user support and troubleshooting in the use of 14 information systems. Consequently, our technical crew attended 515 problems related to hardware, software/systems, telephone and the internet services as compared to 300 problems in 2013/2014.

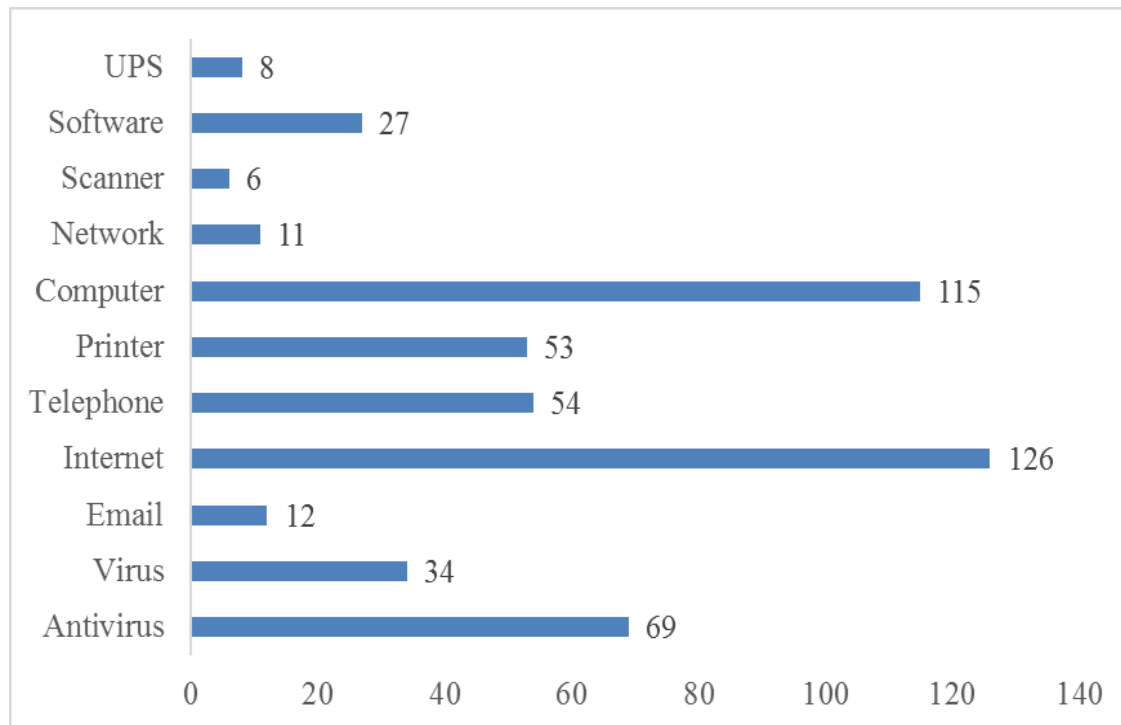


Figure 30: Number of ICT Problems Attended in 2014/2015

18.0 Directorate of Continuing Education and Professional Development

18.1 Introduction



Dr. G. Kwesigabo

The Vision of the Directorate of Continuing Education and Professional Development is to be a national and regional Centre of excellence in provision of quality and sustainable continuing education and professional development in health and related disciplines. The directorate envisages realization of this vision through its mission, which is to provide quality, demand driven CPD through facilitation, regulation and promotion of CEPD for the health sector and beyond. In implementing its mission during this academic year, the Directorate conducted a number of activities: These include the following:

18.2 CPD Courses and Quality of Teaching and Learning

(I) During the reporting period, the Directorate conducted various Faculty development workshops focusing on Interactive teaching and assessment of additional competencies aiming at enabling faculty to better implement the competency based curricula. These trainings were conducted within the MUHAS-KCMC-MEPI project. These include the following: -

- The 1st Faculty Development Workshop on Interactive Teaching Methodology using e-Learning for Academic staff was conducted from 18th to 20th May 2015 in which fifteen (15) faculty were trained.
- The 2nd Faculty Development Workshop on Interactive Teaching Methodology using e-Learning for Academic staff was conducted from 17th to 19th June 2015, where twenty-four (24) faculty were trained.
- The 3rd Faculty Development Workshop on Interactive Teaching Methodology using E-Learning for Academic staff was conducted from 22nd – 24th July, 2015, and (12) faculty were trained.
- The Directorate in collaboration with Directorate of ICT conducted SARIS Training workshop on 29th June 2015. Deans, Directors, Heads of Departments and academic Programme coordinators from Institute of Traditional Medicine, Directorates of Library Services and School of Medicine were also trained.
- The Directorate in collaboration with the directorate of ICT also conducted a four days SARIS Training workshop from 30th June to 3rd July 2015 and a total of fifty-four (54) faculty were trained.

- The Directorate in collaboration with the directorate of ICT also conducted a four days SARIS Training workshop from 20th to 23rd July 2015 and a total of forty (40) faculty were trained.

(ii) The Directorate, in collaboration with the HPEG Group continued to run the Post Graduate Teaching course on Educational Principals and Practice for Health Sciences Professionals (HE 600) that started on 2nd April 2015 and ended on 23rd July 2015. A total number of 200 Postgraduate students were trained.

18.3. Accreditation of CPD Courses

During the reporting period the Directorate accredited a total of 29 short courses. The courses are run by Schools, Directorates and Institutes at MUHAS. The accreditation was based on the available accreditation guidelines developed by the Directorate and approved by the relevant University organs. Courses accredited this year include:

- Short course on Basic Laboratory Methods in Medical Parasitology
- Short course on Laboratory Management
- Project Management, Monitoring and Evaluation of Health Care Interventions.
- Basic Critical Care and Basic Emergency Care course

The accredited short courses will have to be re-accredited after every three years.

18.4. The 3rd MUHAS Scientific Conference

During the reporting period the Directorate continued to facilitate and coordinate the 3rd MUHAS Scientific Conference that was held from 28th to 29th May 2015 at Kunduchi Beach Hotel in Dar es Salaam, Tanzania. The Goal of the conference was to provide a forum for the researchers, practitioners, decision makers, representatives of special groups, media and trainers to share research findings and experiences in health and health related issues and to disseminate their research findings to relevant stakeholders. The conference was attended by 308 participants from Tanzania, USA, Belgium and Nigeria. A total of 134 oral presentations and one poster presentation including two keynote addresses were made. The first Keynote presentation was presented by Prof Mecky Matee about *One health initiative for management of zoonotic infectious diseases to Improve Health and Livelihoods in Southern and East Africa* and the second one was about *Antimicrobial Resistance-Tanzanian experience* presented by Prof Said Aboud. The theme of the conference was **“Developing Countries in Transition: Addressing the Double Burden of Non Communicable and Communicable Diseases”**. With the following subthemes:

18.4.1 Basic research in health issues (BRHI)

- Complementary and alternative approaches in healing practices (e.g. traditional medicine and nutraceuticals)
- Vaccines for preventable diseases (new development, coverage, preparedness, barriers and adverse reactions)
- Conflicts and challenges
- Emerging health challenges
- Natural product research
- Infectious Diseases
- Climate change
- ICT and health
- Pharmaceutical care and formulation
- Socio-behavioral issues related to health

18.4.2 Non communicable Diseases (NCD)

- Lifestyle related diseases
- Childhood obesity and inequalities
- Mental health
- Accidents and injuries
- Various forms of violence and health outcomes
- Dental Health

18.4.3 Translating Health Research Findings into Policy and Practices

- Best practices in prevention of communicable diseases (primary, secondary tertiary)
- Best practices in prevention of non-communicable diseases (primary, secondary tertiary)
- Best practices from health systems and policy study findings (quality of health care: affordability, equity and accessibility)
- Innovations in health interventions

18.4.4 Progress in addressing Health Related Millennium Development Goals beyond 2015

- MD Goal 4: Child morbidity and mortality
- MD Goal 5: Maternal Health
- MD Goal6: HIV/AIDS, Malaria and Tuberculosis.
- MD Goal7: Environmental sustainability

18.4.5 Health System Research (HSR)

- Training and opportunities for responding Human health resource crisis
- Health financing (insurance, user fee etc.)

- Equity and inequality in health
- Health research funding
- Health systems strengthening indicator

The conference was officiated by The Deputy Minister of Education and Vocational Training of the United Republic of Tanzania Hon. Anna Kilango - Malecela on behalf of the Vice President Dr Mohamed Ghalib Bilal.



Figure 31: The Deputy Minister of Education and Vocational Training of the United Republic of Tanzania Hon. Anna Kilango Malecela officiating the 3rd MUHAS Scientific Conference at Kunduchi Beach Hotel on May 28th, 2015.



Figure 32: MUHAS Top Management, the Guest of Honor, Conference Organizing Committee Members and other participants in a group photo during the opening ceremony of the Conference.

18.5 Quality control & assurance

During the reporting year, the Directorate in collaboration with the Directorate of Quality Assurance continued to review curricula of various postgraduate programmes from various schools as the way of improving and strengthening the quality of teaching and learning at the University.

18.6 Infrastructure Development and Income Generation Activities

In an attempt to ensure Sustainability of its activities, DCEPD continued with the following strategies: -

The Kalenga House continued to provide quality and affordable short term accommodation for various visitors and the Directorate continued to generate income for the university through lodging fees.

The construction the Centre for Health Professionals Education (CHPE) is in its final stages of completion. When completed, the Centre is expected to be a catalyst for CEPD activities both at University and national level.

The Directorate wrote a research proposal and received grants amounting to 50,000 USD MUHAS KCMC - MEPI project for strengthening CPD related to teaching and learning at MUHAS and other health related Institutions of higher learning in the country.

18.7 The 39th Dar es Salaam International Trade Fair Exhibitions

The Directorate also participated in the 39th International Trade Fair Exhibitions from 28th June to 8th July 2015 as the way of strengthening linkages, partnerships and networks.

19.0 Directorate of Library Services

19.1 Introduction



Dr. E .T Lwoga

During the reporting period the library continued to implement activities aimed at achieving its objectives as outlined in its Five Years Rolling Strategic Plan. Again due to an insufficient local budget, financial support for the activities came mainly from donors, particularly Sida whose aim is to strengthen the teaching and research capacity at the University.

19.2 User Needs

The library continued to compile user profiles to give guidance on user needs. Academic departments and staff were contacted for suggestions and views on materials to be acquired, particularly books and journals. Library statistics were taken on daily basis to give guidance on library use and for decision - making.

19.3. Collection Development

During the period under review, the library acquired 912 titles (1472 copies) of printed books through various means. These books were processed and they are already in use.

- The library received 823 titles (1348 copies) of printed books from Book Aid International.
- The Library received 1 title (2 copies) of book from Prof.F.K. Kahabuka
- The Library also received 2 titles (2 copies) of books from WHO
- The library received 17 titles (23 copies) from School of Public health (MUHAS)
- The library received 1 title (1 copy) from Prof Kaaya E.
- The library received 1 titles (1 copy) from Silvia Kaaya
- The library received 57 titles (57 copies) from Sangina Dabir
- The library received 1 title (1 copies) from William Thompson.
- The Library received 1 titles (1 copy) from Dr Joseph Otieno
- The Library received 1titles (3copies) of Prospectures from MUHAS.
- The library also received 7 titles (33 copies) of books from various Institutions including Lake Victoria Research, TACAIDS, Tume ya mabadiliko ya katiba ya Jamuhuri ya Muungano wa Tanzania, and Haki Elimu.

The library also received 36 titles (247 copies) of journals from various institutions as shown below:

- Ten (10) titles with 26 copies of journals from School of Dental (MUHAS)
- One (1) title with one (1) copy from Institution of Traditional Medicine (MUHAS)
- Seven (7) title with 96 copies from Bank of Tanzania
- One (1) title with 11 copies of journals from Prof.Kaaya E
- One (1) titles with 2 copies of journals from Dr Carnero (School of Dental)
- One (1) titles with 47 copies of journals from Dean of Student (MUHAS)
- Seven (7) titles with 26 copies of MUHAS News Letter.
- One (1) title with 1 copy of News Bulletin from MUHAS
- Seven (7) titles with 37 copies of journals from various institutions including Lake Victoria Research, WHO, Islamic Word Academy of Science, LEPRO, APHFTA, and UDSM.

19.4 Electronic library services

The library continued to subscribe to 29 academic databases through the SIDA-SAREC project funds for 2014/15. These academic databases provide access to scholarly journals and books and they are subscribed under the Consortium of Tanzania University and Research Libraries – COTUL. The Directorate of Library Services was able to retrieve data from four online academic databases, and the statistics show that HINARI database had high usage. However, other databases were used at a low rate. This shows that there is a great need to continue conducting workshops to build up capacity of MUHAS staff and students to use these online resources.

Table 38: Usage statistics for online databases subscribed by MUHAS library.

Months/Year	Full text Downloads for MUHAS subscribed online databases				
	Sage	Central Index System	Wiley Online Library	Biomed central	DOAJ
July 2014	32	33	134	-	13
August 2014	24	7	-	-	-
September 2014	4	0	-	-	-
October 2014	0	1	-	-	-
November 2014	0	51	26	2	29
December 2014	0	29	-	-	-
January 2015	0	54	-	-	-
February 2015	0	28	-	-	-
March 2015	0	45	-	-	-
April 2015	0	32	672	260	-
May 2015	0	90	363	397	-
June 2015	0	-	-	-	-
TOTAL	60	370	1195	659	42

During the year under review the library continued to provide access to offline e-journals through the *Essential Electronic Agricultural Library (TEEAL)* database with a support from the Technical center for Agricultural and Rural Cooperation (CTA) and Information, Training and Outreach Center for Africa (ITOCA). TEEAL collection provides access to over 140 top scientific journals in agriculture and health fields. The database is now available at the library

The library subscribed to UpToDate database in collaboration with School of Medicine, Directorate of ICT and Harvard medical School. These databases are now available at Muhimbili Campus for free from 2014

The library continued to maintain the library computer laboratory by making sure the computers are operating effectively and connected to internet so that library users are able to access and use the library subscribed online databases, offline database i.e. TEEAL and other free online resources. During the period under review, undergraduate students were the most users of the computer laboratory, whereby a total of 4264 undergraduate students use the computer as compared to 107 postgraduate students to access scholarly information

Institutional repository

During the reporting year the library continued to create awareness and conducted training on the use of an institutional repository (<http://ir.muhas.ac.tz:8080/jspui/>) to students and academic staff at MUHAS. Currently the MUHAS Institutional Repository (IR) has a total of 1085 research works and still the library staffs continue to populate the IR with research works produced by MUHAS faculty members and students. During the period under review a total of 2456 users accessed the institutional repository with the total of 3643 sessions

Table 39: Institutional Repository Usage Statistics

Months/Year	Users	Sessions
Jul-14	187	228
Aug-14	214	258
Sep-14	231	303
Oct-14	234	285
Nov-14	183	264
Dec-14	129	173
Jan-15	195	282
Feb-15	199	288
Mar-15	350	464
Apr-15	316	414
May-15	301	367
Jun-15	255	317
TOTAL	2,456	3,643

Library website

The library website was re-designed and it is now available on the internet (library.muhas.ac.tz). The library continued to catalogue the free electronic resources on the internet. The catalogue is now available on the library website. The catalogue comprises of links to free online journals, books, evidence based practice databases, educational materials, statistics, and tutorials on information searching other health gateways. During the period under review a total of **5,784 users** visited the library website with a total of **8,515 sessions**.

Table 40: Library website usage statistics by visitors' category

Months/Year	Users	Sessions
Jul-14	440	623
Aug-14	362	511
Sep-14	465	604
Oct-14	473	640
Nov-14	310	472
Dec-14	137	202
Jan-15	397	668
Feb-15	369	560
Mar-15	574	742
Apr-15	632	848
May-15	1007	1178
Jun-15	1218	1472
TOTAL	5,784	8,515

Data entry activity

The data entry activity continued and the database has a total of 19,141 titles with 31,618 copies of books, and 3,411 titles of journals. Currently, the library staffs are entering records of recently acquired books and journals.

Table 41: Usage of Computer Laboratory

Months	UG students	PG Students	Staff	External Borrowers
Jul-14	51	6	0	0
Aug-14	2	0	0	0
Sep-14	0	0	0	0
Oct-14	69	0	0	0
Nov-14	280	3	0	2
Dec-14	153	4	1	0
Jan-15	178	4	0	0

Feb-15	104	2	0	0
Mar-15	105	4	0	0
Apr-15	133	8	0	0
May-15	133	2	0	0
Jun-15	94	4	0	2
Total	1302	47	1	4

Table 42: Library circulation statistics

Months	Undergraduate	Post Graduate	Total
July, 2014	887	23	910
August, 2014	37	2	39
September, 2014	52	4	56
October, 2014	231	20	251
November, 2014	222	16	238
December, 2014	481	28	509
January, 2015	379	15	394
February, 2015	509	5	514
March, 2015	243	0	243
April, 2015	577	3	580
May, 2015	338	0	338
June, 2015	201	1	202
Total	4157	117	4274

Usage of Computer lab

Computer usage statistics for the past three months show that a total of 4257 students used computers in the library. However, the undergraduate students were the most users of computers than postgraduate students as shown in Table 42.

Circulation services

A total number of 1354 books were borrowed for the period under review, whereby undergraduate students were the major users of library books than other categories of students).

19.5 Teaching and Learning

1. The library taught ICT course to diploma students at the Institute of Allied Health Sciences (IAHS). ICT module for the diploma in Medical Laboratory Sciences (DMLS) was taught at the School of Allied Health Sciences, second semester. A total of 71 students were taught in the first semester.

2. The library taught the following University courses to undergraduate students:

Course IT 100: information and learning technologies to first year undergraduate students at MUHAS. The course has two modules. The first module is Basic ICT and learning technologies, while the second module is on information searching techniques. In the first semester of the 2014/15 academic year, the library taught 615 first year students from all programmes.

The library also taught a course on Communication Skills (CS 100) to all first year undergraduate students in the second semester. The results of the course will be in place by August 2015.

There were also a total of 79 students from School of Nursing who were trained on information literacy aspects by the Library in April, 2015.

The library taught a topic on information literacy (IL) in the following postgraduate courses

A total of 14 first year postgraduate students were trained on literature search techniques in AE:603 Research Methodology and Computers in Public Health Course on 25th November 2014

A total of 37 students were trained on Online Literature Search and Reference Management during the FP 600 – Research methods module for students of the Masters of Public Health – executive tack in the second semester from 7th to 8th May 2015

Reference management and use of Mendeley software was taught as a topic in the HE 600: Teaching methodology Course that comprises all first year postgraduate students. A total of 211 students were taught on 14th and 21st May 2015

During the period under review the Directorate of library services conducted a total of three workshops to MUHAS postgraduate Students for academic year **2014/ 2015**. During that period, a total of 150 postgraduate students were trained. These courses include the following:

Reference Management Using Mendeley software which was held from 29th to 30th April, 2015

Searching techniques for online resources (Using HINARI, PubMed & Mesh terms, Cochrane, TRIP Database and Mendeley) which was conducted on 15th May, 2015

Searching techniques for online resources (Using HINARI, PubMed & Mesh terms, Cochrane, TRIP Database and Mendeley) which was conducted on 27th May, 2015

19.6. Continuing professional development programmers

During the period under review, the Directorate of library services conducted a total of 12 workshops for the academic year 2014/ 2015. During the reporting period a total of 134 MUHAS staff, 118 MUHAS postgraduate students and 85 participants from other institutions were trained

Table 43: List of workshops conducted by MUHAS Library

S/N	Name of the Workshop	Workshop dates	Workshop Participants Category	Number of Participants trained
1	Evidence based-practice and critical appraisal workshop to researchers and from within and outside MUHAS	2 nd – 4 th September 2014	MUHAS faculty staff	12
			Non- MUHAS staff	14
2	Evidence based-practice and critical appraisal workshop to researchers and from within and outside MUHAS	23 rd October 2014	MUHAS faculty staff and Non-MUHAS staff	32
3	Evidence based-practice and critical appraisal workshop to researchers and from within and outside MUHAS	10 th -12 th November 2014	MUHAS faculty staff	12
			Non- MUHAS staff	17
4	TEEAL and HINARI electronic resources	19 th – 20 th January 2015	MUHAS library staff	19
			Library Volunteers	4
5	MUHAS Library staff training	27 th January 2015	MUHAS library staff and volunteers	28
6	HINARI training of Trainers Workshop	28 th – 30 th January 2015	MUHAS staff	12
			Non- MUHAS staff	13
7	Library E-resources, website and dropbox, customer services and accountability, marketing of library services and open access repository for journal	14 th May 2015	MUHAS Library Staff	14
8	Searching techniques for online resources. (using HINARI, PubMed&MesSH terms, Cochrane, TRIP database and Mendeley software)	15 th & 27 May 2015	MUHAS Postgraduate Students	104
9	E-Resources Database: Using TEEAL and AGORA for scholarly Publication and Mendeley software	20 th -21 st May 2015	MUHAS Faculty Staff	9
10	Evidence Based and Critical Appraisal Workshop	8 th -10 th June	MUHAS Staff	5
			Non MUHAS Staff	21
11	Postgraduate students' workshop on Advanced Online Searches and Web 2.0	22 th -23 th June 2015	Postgraduate students	14

	Technologies			
12	Faculty Staff on Institutional Repository and Open Access Resources	25 th -26 th June 2015	MUHAS faculty	7
	TOTAL		MUHAS Staff	134
			Non MUHAS Staff	85
			Post Graduate Students	118
	GRAND TOTAL	337		

During the period under review, library staff attended various workshops and short courses outside MUHAS:

- One Library staff (Dr. Mboni Ruzegea) attended a training workshop on TEEAL strategic meeting (9th -14th February 2015) in South Africa
- One Library staff (Mr. William Mviombo) attended a workshop on E-Resources (11th - 13th February 2015) in Dar es Salaam-Tanzania
- Five library staff (William Mviombo, Mboka, Kitwana, Ndumbalo and Mary Matari) attended a TLA workshop (25th – 27th February 2015) in Bukoba-Tanzania
- Two library staff (Dr. Rehema Chande-Mallya and Dr. Sydney Msonde) attended a workshop on Access and Delivery Access from 22nd -28th March 2015 in Morogoro-Tanzania.
- One Library staff (Benard E. Sengo) attended workshop training on Library System on 27th August, 2014 at SUA, Morogoro-Tanzania.
- Three Library staff (Tatu Majaliwa, William Mviombo and Benard Sengo) attended a workshop training on Marketing and Communication from 28th -29th May 2015 at COSTECH in Dar es Salaam-Tanzania.
- One Library staff (Dr. Rehema Chande-Mallya) attended a workshop on Africa Library Association and Institutions from 26th -31st May, 2015 in Accra-Ghana.
- One Library staff (Dr. Rehema Chande-Mallya) attended a Systematic Review Workshop from 1st -4th June, 2015 in Cape-Town, South Africa.
- One Library staff (Dr. Rehema Chande-Mallya) attended European Association for Health Information Libraries workshop from 10th – 12th June, 2015 in Edinburg, UK

19.7. Resource mobilization

During the period under review, the Directorate of library services conducted total of oneworkshop for income generating activities for the academic year **2014/ 2015**. A total of 8 participants from other Institution were trained in the Digital Repository and web 2.0 Technology from 27th -29th May 2015.

19.8. Research and publications

19.8.1 Research grants

During the reporting period the library had a total of seven research projects, which include the following:

- Research grant title: Contribution of information and communication technologies for gender empowerment and sustainable poverty reduction. A comparative case study of Tanzania and South Africa-Period: 2013-2015; Funder: COSTECH under the South Africa- Tanzania Joint Research Programme, Collaborator: University of Cape Town
- Research grant title: The Essential Electronic Agricultural Library (TEEAL) project in Tanzania-Period: 2014-2016; Funder: Bill and Melinda Gates Foundation and Information, Training and Outreach Center for Africa (ITOCA)-Collaborator: ITOCA
- Research grant title: Strengthening professional's skills in evidence based health care in Tanzania-Period: 2013-2015; Funder: Elsevier Foundation, Netherlands; Collaborator: ITOCA
- Research grant title: Strengthening the use of ICT at MUHAS library, funded by SIDA Project-Period: 2008-2015; Funder: SIDA
- Research grant title: Online information seeking behavior of HIV patients and health care professionals in selected regional hospitals in Tanzania-Period: 2014-2015; Funder: SIDA
- Research grant title: The African Universities' Research Approaches (AURA) programme; Period: 2015-2018; Funder: DFID; Collaborator: Institute of Development Studies (IDS), Loughborough University, ITOCA
- Impact evaluation of the provision of access to an evidence-based clinical resource (Up to Date) to undergraduate medical students in Sub-Saharan Africa; Period: 2015-2019: A collaboration between Directorate of ICT, School of Medicine and Directorate of Library Services (Tanzania) and Harvard Medical University (USA)

19.8.2 Publications

The library published the research bulletin for the University to cover a period of 2013. The research bulletin already available at the university website

During the period under review, the library published one book chapter, seven journal articles, and nine conference papers as shown below:

19.9 Conference papers

During the period under review, nine-conference papers were presented as shown below:

- Lwoga, ET and Nagu, T. 2015. Success factors for usage intentions of online information by people living with HIV in selected regional hospitals in Tanzania. 3rd MUHAS Conference held from 28-29 May 2015
- Lwoga, ET and Komba, M. Determinants of continued usage intentions of web-based learning management system in Tanzania. Banda, TM, Ngwira, M. and Chisowa, R. (eds) Proceedings and reports of the 6th UbuntuNet Alliance annual conference, 13 to 14 November 2014 Lusaka, Zambia
- Lwoga, E. T., & Questier, F. (2014). A Model for Measuring Open Access Adoption and Usage Behavior of Health Sciences Faculty Members. In *XIII Mediterranean Conference on Medical and Biological Engineering and Computing 2013*, pp. 1298-1301. Springer International Publishing. <http://www.springer.com/engineering/biomedical+engineering/book/978-3-319-00845-5>
ISBN: 978-3-319-00845-5
- Lwoga, E. T., Chande-Mallya, R., Chimwanza, G., & Chataira, B. (2014). Information behavior of health professionals in evidence based health care practice in Tanzania: Proceedings of the 14th biennial AHILA Conference on ICTs and access to health information and knowledge (pp. 36). Dar es Salaam: Avocado Inc.
- Sife, A. S., & Lwoga, E. T. (2014). The Tanzania Journal of health research: A bibliometric study: Proceedings of the 14th biennial AHILA Conference on ICTs and access to health information and knowledge (pp. 37-38). Dar es Salaam: Avocado Inc.
- Chande-Mallya, Rehema. (2014). Access and use of electronic health Information resources among selected biomedical and health Universities in Tanzania: Proceedings of the 14th biennial AHILA Conference on ICTs and access to health information and knowledge (pp. 39-40). Dar es Salaam: Avocado Inc.
- Chande Mallya, R., Nkhoma-Wamunza, A., & Manda, P. (2014). Accessibility of HIV/AIDS information in rural Tanzania: A case of Coastal region in Kisarawe district: Proceedings of the 14th biennial AHILA Conference on ICTs and access to health information and knowledge (pp. 50-51). Dar es Salaam: Avocado Inc.
- Marwa, C., & Meshack, E. (2014). Health information corners in Tanzania: Developing professional and para-professional knowledge and skills to support public access to health information: Proceedings of the 14th biennial AHILA Conference on ICTs and access to health information and knowledge (pp. 53-54). Dar es Salaam: Avocado Inc.
- Ruzagea, A. M. (2014). The use of pregnancy health information among teen expectant mothers in Tanzania: Proceedings of the 14th biennial AHILA Conference on ICTs and access to health information and knowledge (pp. 56-57). Dar es Salaam: Avocado Inc.

20.0 Dean of Students Office



Dr. D. Kakoko

20.1 Introduction:

The office of the Dean of Students (DOSO) is responsible for personal and social welfare of students at the University. During the reporting period the office continued to provide various services including: health, accommodation, cafeteria, games and sports, counseling and guidance as well as overseeing the students' organization (MUHASSO).

20.2 Staff Matters:

A total of 18 DOSO staff continued to provide services to students. During the reporting period:

- Ms. Stella Jackson and Mr. Zefania Kiula were promoted from Warden I to Senior Warden II
- Ms. Rehema Mwaituka was promoted from Janitor II to Warden II.
- Mr. Paul Lwegana and Ms. Juliana Masatu were employed as Janitor II.
- Mr. James Lyaruu was engaged as a volunteer Counselor.
- Mr. Mohamed Mkandu tendered a letter to resign from duties as a Janitor following his intention to contest as a Ward Counselor. The University Management endorsed his request.
- Mr. Ally Shaaban Kione was transferred to the Dean of Students Office as the Driver and the former Driver Mr. Hamad Muya was transferred to the School of Pharmacy.

20.3 Students' Affairs:

20.3.1 Orientation of First Year Students:

During the period under review, the office of Dean of Students organized one-week orientation for the new students for 2014/2015 academic year. The event took place from 6th to 11th October, 2014. All activities were successfully accomplished as planned.

20.3.2 Guidance and Counseling Services:

During the reporting period the guidance and counseling services continued to be offered to students. A total of 94 clients were counseled on various matters, such as psychological, social, academic and financial problems. In solving problems, the Counseling Unit collaborated with other units within the University. Students were also encouraged to visit their mentors to discuss academic and social issues. Mentors were also reminded to meet with their mentees.

20.3.3 Support to Students with Disabilities:

During the 2014/2015 financial year, the University through the Office of Dean of Students requested for TZS. 19,000,000/= from the Ministry of Education and Vocational Training (MoEVT) to support students with special needs. However, the MoEVT allocated only 3,940,454/= to MUHAS. The Office of Dean of Students in collaboration with MUHASSO re-allocated the funds received from the MoEVT in order to procure equipment for intended students.

20.3.4 Accommodation Service to Students:

During the period under review a total of 964 (45.3%) of Undergraduate students were accommodated in the University hostels. Also, 253 students were accommodated during long vacation mainly for fieldwork and/or supplementary examinations.

20.3.5 Hostel Maintenances:

In the year under review, hostels were not renovated during the long vacation due to the financial constraints. However, the Directorate of Estates in collaboration with MUHASSO and SSB office regularly identified issues that needed maintenance and requests were made to the University Management to be approved.

20.3.6 Cafeteria Services:

In the year under review the Muhimbili and Chole Road students' cafeteria services continued to under the same caterer; Mugaya General Enterprises. At Muhimbili, the Directorate of Estates carried out repair of the damaged tables and chairs in the cafeteria. However, there were several complains at Chole Road cafeteria regarding food quality and hygiene. Communication was made to the Director of Mugaya General Enterprises, who promised to solve the problems.

20.3.7 Health Services:

A total of 1,672 undergraduate students were members of health insurance schemes during the reporting period. Of these, 470 students had their own membership cards and 1,202 students registered for NHIF in the 2014/2015 academic year. All students who registered for the NHIF received their membership cards. There were 36 ill students who were admitted at hospitals and 20 attended at hospitals as outpatients during the reporting period. There was a special case of a student namely Bernard John Augustino (MD 5 with Reg. 2010-04-02476) who was seriously ill and admitted at MNH. He was later on transferred for further treatment at Agakhan University Hospital in Nairobi, Kenya. Mr. Bernard was discharged from hospital in Nairobi on 19th March, 2015.

20.3.8 Students' Leadership and Governance

MUHASSO Government continued with their activities as required during the reporting period. MUHASSO Electoral Committee (MEC) conducted elections of the Chairpersons of all schools in January, 2015. Election of School Secretaries and Hostel Leaders were held on Wednesday 1st April, 2015 and Thursday 2nd April, 2015 respectively. Elections of the Vice President and President were held on 18th April, 2015. MEC declared Mr. Mathew Mandawa as MUHASSO President and Mr. Adamu Likiliwike as MUHASSO Vice President. Thereafter, the new MUHASSO cabinet was formed with a total of 9 Ministries and 29 Members.

On 4th and 5th June, 2015, the Dean of Students Office held an induction workshop that involved newly elected MUHASSO leaders. MUHAS presentations involved the top University Management and other staff. There were also external presenters from the Higher Education Students Loans Board (HESLB) and the National Health Insurance Fund (NHIF). Presentations were intended to equip newly elected student leaders with knowledge as well as enhancing their leadership skills and molding their attitudes.

20.3.9 Disciplinary Matters:

During the reporting period the ruling of preliminary objections for the High Court case, which was filed by expelled students, was delivered on 5th June, 2015 before Hon. Teemba. The entire Application was stricken out of the court. Nevertheless, the Applicants namely Gervas and Charles filed in court a notice of intention to appeal against the ruling.

20.3.10 Sports Activities:

There was friendly football, volleyball and basketball matches between IMTU and MUHAS students in February, 2015 at IMTU playgrounds. The football match ended up by 2-2 goals. MUHAS won the match in volleyball by 2 sets and in basketball MUHAS emerged as the winner by scoring 19-12 against their counterparts. The University supported students with transport to IMTU.

There was also friendly football, volleyball and basketball match between IMTU versus MUHAS on Saturday 13th June, 2015 at Don-Bosco playgrounds. MUHAS emerged as the winners in football match by scoring 1-0 goals. IMTU won volleyball by 1 set and basketball by scoring 9-3 against their counterparts.

20.3.11 Security Issues at the Hostels:

One theft incident was reported at the Warden's office at Muhimbili students' hostel. The case was reported to MUHAS Auxiliary Police for further investigation. In order to ensure security of students' belongings extra locks were installed in the hostels.

20.4 Special Events and Activities:

20.4.1 Processing and issuing National Identity Cards: At different dates, the National

Identification Authority (NIDA) officials visited MUHAS to process and issue National Identity Cards to students during the reporting period.

20.4.2 International Youth Fellowship (IYF) Badilisha Fikra Camp & Forum

From 5th-9th August, 2014 fourteen (14) students attended International Youth Forum (IYF) (Badilisha Fikra Camp & Forum), which took place at Mlimani City Conference Centre. The aim was to nurture youth to be good leaders and also change their mindsets. Also, from 3rd to 6th April, 2015 twelve (12) MUHAS students and three (3) staff from the Office of the Dean of Students attended IYF camp for training and discussing key issues currently facing youth. The camp was held at ESACS Academy, Mbezi Beach.

20.4.3 Visiting Children with Cancer at MNH

On 22nd November, 2014 the Rotary Club of MUHAS organized a charity event by visiting children living with cancer at Tumaini and Upendo Wards in Muhimbili National Hospital.

20.4.4 TACOGA Annual Meeting

From 5th to 7th February, 2015 the 32nd Annual meeting of counselors (TACOGA) was conducted at VETA in Dodoma. MUHAS Counselor attended the meeting.

20.4.5 World International Women day

On 3rd March, 2015, six (6) MUHAS students and three (3) staff from the Dean of Students' Office attended a Seminar for Commemoration of the International Women's Day (IWD) at the University of Dar es Salaam Gender Centre.

20.4.6 The fake student Baraka John Athuman

On 30th March, 2015, a fake student known as Baraka John Athuman was caught in the cadaver room. Thereafter, he was taken to MUHAS Auxiliary Police who interrogated him. He was later taken to Salender Bridge Police Station for further steps. The matter is still under police investigation.

20.4.7 Gender Sensitization Workshop for Students

On 11th June, 2015 MUHAS Gender Unit organized one-day Gender Sensitization workshop to MUHAS students. Presentations and discussion during the Gender Sensitization workshop focused on enhancing students to behave gender sensitively.

20.4.8 PSPF Seminar to students

On 17th June, 2015 the Public Service Pensions Fund (PSPF) conducted training to students where 302 attended and 105 joined PSPF.

20.4.9 Obituary

One student Mr. William Blassius Kamugisha passed away on Tuesday 5th August, 2014 at TMJ Hospital where he was admitted. The late William was a second year Bachelor of Medical Laboratory Sciences (BMLS) student. His body remains were laid to rest at Mwananyamala cemetery. May his soul rest in the eternal peace, Amen.

21.0 Directorate of Human Resources Management and Administration

21.1 Introduction



Mr. A. Nnko

The Directorate of Human Resource Management and Administration (DHRMA) was established to execute Human Resource functions for the University. The Directorate promotes the University performance through effective and efficient management of Human resource and related activities. It strives to maintain working environments that encourage employees to achieve the University goals as well as individual professional goals. The Directorate also is responsible for planning, recruiting, developing and managing human resource for optimal University performance and implementation of HR- actions on staff policies, rules and regulations through its departments of: -

- Human Resource Planning and Development
- Human Resource Salaries and Benefits
- General Administration Services.

During the reporting period (2014/2015) the Directorate implemented the following: -

21.2 Activities Highlights for 2014/2015.

21.2.1 Staff Establishment and Recruitment.

The Directorate recruited 62 new staff (55 Academic staff and 7 Administrative staff) for the whole University. At the same period, through the President's Office - Public Service Management (PO-PSM) the Directorate facilitated issuing of permit to recruit 73 staff (59 academic and 14 administrative and Technical). Recruitment of appropriate staff was therefore initiated however; they are expected to report for duty during 2015/2016.

The new recruitments increased the total number of staff to 624 (288 academic staff 174 males and 114 (39.6%) female) and 336 (Administrative and Technical Staff - 196 and 140 (41.7%) female). The overall female proportion of University staff was therefore 40.7%.

21.2.2 Staff Training and Development

During the period under review the Directorate continued to ensure that competent, functional, relevant and adequate human resource with appropriate skills mix and competences are in place. In recognition of the importance embodied in the staff training, the University continued to train its employees both locally and overseas and it continued to encourage and support individual

efforts. In this respect a number of employees were trained and others attended Diploma, Undergraduate and Postgraduate courses at higher learning institutions as shown in Table 44 below: -

Table 44: Status of staff on training as at 30th June, 2015

Staff Category	Training/Completed	Sex	PhD	Master	Other training (Post Doc, MSc. Super Specialization)	Total
Academic Staff	Staff on Training	M	15	4	1	20
		F	14	5	1	20
	Total		29	9	2	40
	Staff completed training	M	2	3	0	5
		F	0	0	1	1
	Total		2	3	1	6
Admin & Technical Staff	Staff on Training		Master	Degree	Diploma	
		M	5	3	0	8
		F	2	6	0	8
	Total		7	9	0	16
	Staff completed training	M	0	0	0	0
		F	3	0	2	5
	Total		3	0	2	5
Total			41	21	5	67

Many other staff attended short courses/professional trainings locally and internationally during the reporting period.

21.3 Scheme of Service for Academic Staff.

The Harmonized Scheme of Service for Academic staff of all public Universities in Tanzania was approved by the Treasury Register in December, 2014 to be operational with effect from 1st of July, 2015.

21.4 Scheme of Service for MUHAS Teaching Hospital

The MUHAS Academic Medical Centre scheme of service was processed through the respective University Machinery and later submitted to Treasury Registrar for final endorsement.

21.5 Succession Plan 2015/2016 – 2018/2019

The Directorate facilitated preparation of the Faculty Succession, which was processed for University Council approval during its 34th Meeting held on 6th February, 2015. Its implementation was with effect from 1st July 2015.

21.6 OPRAS Implementation Guidelines

The Directorate managed to draft the mentioned guidelines which were processed through stakeholders for inputs and improvements and through University organs and approved by the University Council during its 35th Meeting held on 28th April, 2015.

21.7 MUHAS Client Service Charter

The Directorate drafted the first University Client Service Charter Since its inception. The preparation of the Charter is the indication of the commitment the University has in offering the highest quality and timely services to its clients. The charter will be operational from 2015/2016 academic year.

21.8 OPRAS Training

During the reporting period, the DHRMA organized an OPRAS training for two groups that is Deans, Directors & Heads of Departments from 1st - 4th September 2014 and Administrative Officers/HR Officers from 24th – 28th September, 2014 respectively. Acuity from Mzumbe University facilitated both trainings.

21.9 Promotion

During the reporting period, twenty-six (26) staff were promoted to different higher levels. Among the staff there were twenty (20) academic while Administrative and Technical Staff were six (6). During this period the number of faculty who were promoted were less compared to 2013/2014 as illustrated in the table 45 below: -

Table 45: Staff Promotion 2014-2015

Year	Academic Staff	Administrative and Technical Staff	Total
2013/2014	31	6	37
2014/2015	20	6	26
Total	51	12	63

21.9.1 Retirement

During the reporting period a total of 12 staff retired due to compulsory age of retirement. Out of these, 6 were academic staff while the other 6 were administrative and Technical Staff. This is contrary to the last year in when a total of 21 staff retired due to compulsory age and out of these 12 were academic staff.

Table 46: Staffing needs for the Directorate of Human Resource Management and Administration

Establishment by Post

A. Office of the Director				
	Post	Required Number	Actual Number available	Deficit
1	Director, of HR Management and Administration	1	1	0
2	Deputy Director, HR Management and Administration	1	0	1
3	Office MGT Secretary	1	1	0
4	Records Management Assistant	2	1	1
5	Office Assistant	1	1	0
6	Driver	1	1	0
Total i		7	5	2
B. Department of Human Resource Planning and Development				
7	Head of Department	1	1	0
8	Senior Human Resource Officer II	1	0	1
9	Human Resources Officer I	1	1	0
10	Human Resource Officer II	2	1	1
Total ii		5	3	2
C. Department of Human Resource Salaries and Benefits				
11	Head of Department	1	1	0
12	Senior Human Resource Officer II	1	0	1
13	Human Resource Officer I	2	0	2
14	Administrative Officer II	2	1	1
Total iii		6	2	4
D. Department of General Administration Services				
15	Head of Department	1	1	0
16	Senior Administrative Officer II	1	0	1
17	Administrative Officer I	2	1	1
18	Administrative Officer II	1	0	1
Total iv		5	2	3
GRAND TOTAL		23	12	11

21.9.2 Post Retirement Contracts

Twenty (20) Staff were approved for post-retirement contracts by the University Council and subsequently by President's Office –Public Service Management which bring the total of 63 faculties who were on post retirement contracts as of June 30th, 2015.

21.10 Staffing in the Directorate of Human Resource Management and Administration

The Directorate of HR Management and Administration like many other units of the university is understaffed. According to the establishment, the Directorate needs a minimum of 23 staff as shown in table 47 above.

21.11 Staff Turnover and Retention

In the reporting period, a total of 5 staff left employment on various reasons such as resignation, end of contracts and transfer. The overall staff retention was therefore stable during the reporting period compared to last year, whereby 15 employees left employment due to various reasons.

21.12 Staff Disciplinary Issues

During the reporting period, there were two (2) labor disputes at CMA where by one staff who was terminated filled a labor dispute against the University claiming for unfair termination. Second one whose contract expired filled a labor dispute against the University claiming for compensation for his transport allowance and transport of personal effects. These cases are still at CMA and no decision has been made up to the reporting period.

22.0 Directorate of Estates

22.I. Introduction



Mr. Lugano E. Kyejo

The Estates Directorate is a technical directorate whose main function is to support core institutional functions; by providing and ensuring that the teaching, learning and consultancy activities rendered are rendered into a safe environment at the Campus. The Directorate has also the function of maintaining grounds i.e soft and hard land scaping, managing both outsourced and in-house minor and major rehabilitation as well as supervising new construction projects.

22.2 Projects Implimented

22.2.1 Proposed Construction of CHPE Buidling

During the reporting period the constructe of the Haile Debas Center for health Professions Education (CHPE) was practically completed. Pre handover inspection took place on the 28th August 2015 . The hand over ceremony is scheduled for september 2015.



Figure 33: Current status of CHPE building

22.2.2 Renovation of Third floor of the Dental Building

During the reporting period the renovation work of the Dental Clinic in the school of Dentistry was carried out by the contractor M/S Kimberite Investment, at a contract sum of **TZS 31,612,640**. The work was supposed to end during the 2015/2016 academic year.

22.2.3 Construction of the Police Post –Mloganzila

During the reporting period the contractor, M/S PIA COMPANY LTD at a contract sum of TZS 57,650,552/-, carried out the construction of the Police post. The construction will be finished towards the end of the second half of 2015/2016.

22.2.4 Supply and Installation of Biomedical Incinerator

During the year under review, M/S Tanzania Engineering and Manufacturing Design Organization (TEMDO), designed and constructed a biomedical incinerator at a contract sum of **TZS 28,807,989/-**. The project was handed over on March 12, 2015.



Figure 34: Handover ceremony of the Biomedical Incinerator

22.2.5 Supply and Installation of bills and signboards at Muhimbili main Campus Sign Industries Ltd

During the reporting period M/S Sign Industries Ltd was awarded a contract to install signboards and signage in the campus and buildings at a contract sum of **TZS 24,685,00/-**. An Additional work of design and installing a Mega billboard at junction of Morogoro road and road going to

The MUHAS Academic Medical Centre amounting to TZS 16,520,000/- was awarded to the same contractor. The work was completed within the time frame.



Figure 35: Billboards and Signboards Placed at Various Areas in MUHAS Campus

22.2.6 Various Minor Renovations and Installations

During the reporting period the Directorate carried out a number of in house minor renovations such as the replacement of rotten timber truss system and the installation of corrugated iron sheets over the Administration building that houses offices of Vice Chancellor, DVC – PFA, and the VC boardroom at a cost of TZS 6,545,000/- Also rain water gutters and down pipes were installed at the Microbiology building at a cost of TZS 3,440,000/-. Generator houses were externally painted at a cost of TZS 2,794,000/-. Concrete slabs were installed at the back of the Microbiology building at a cost of TZS 1,716,000. The Directorate also installed a new armored electric cable, supplying electrical power to the Library and the Clinical building at a cost of TZS 4,700,000/-. Installation of stand type air conditioners and air extractors were procured and installed in the Anatomy Dissection Room at a cost of TZS 16, 734,600/-.

22.2.7 Meter Separation

During the year under review the Directorate separated MUHAS's core electrical function uses from commercial uses by installing LUKU Meters in staff and commercial premises of the University. The work was completed on the 6th December 2014. This strategy was implemented as a cost containment measure and saved money that the University previously was paying on monthly basis to TANESCO for staff residences and commercially operated premises.



Figure 36: Luku Machines at Staff Flats

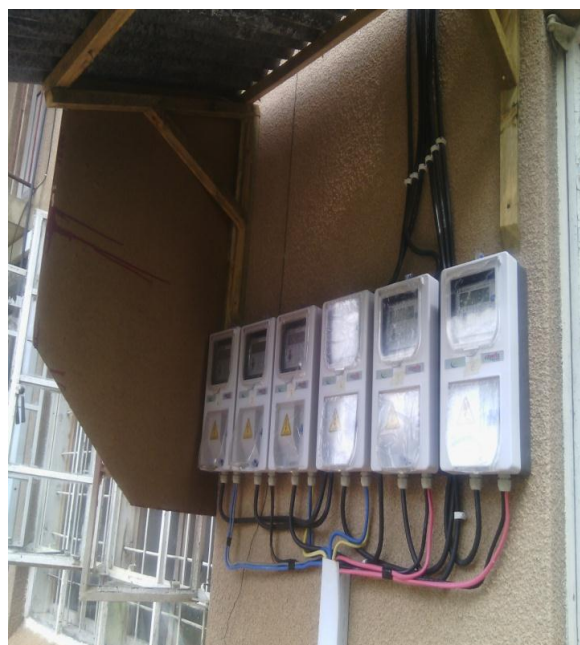


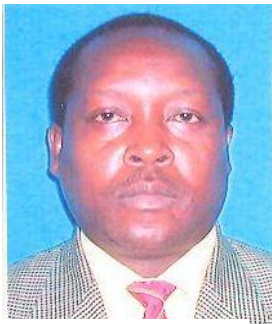
Figure 37: Luku for Students and Staff canteens

22.2.8 Power Upgrading for MPL building

In tandem with installation of LUKU meters, during the reporting period the Directorate successfully supervised the power upgrading at MPL building. The building had been experiencing frequent power outages for a long time due to overloading of the transformer and over load transmission lines that supplied power to the MPL building. A technical study was made and a transformer capable of handling current power demands at the MPL building was procured and installed. This measure solved the energy wastage which the University experienced thus a cost containment measure and solved the problem of power interruptions to the building.

23.0 Directorate of Finance

23.1 Introduction



Mr. T Tibenda

The Directorate of finance has a mandate to coordinate all matters related to finances at MUHAS. During the reporting period, the Directorate continued with its functions of planning, directing and controlling the financial accounting operation of the university. This includes preparation of budget, collection of revenue, use of funds, accountability and reporting. It also continued to provide feedback on the budget performance and assessment of the financial situation of the University.

23.2 Activities Carried out During the Reporting Period.

During the reporting period the following activities were carried out: -

23.2.1 University Budget

Recast budget for the financial year 2014/2015 was prepared and approved by the University Council at its 32nd Meeting held on 25th August, 2014 and the University budget for the financial year 2015/2016 was prepared and approved by the University Council at its 34th Meeting held on 6th February, 2015.

23.2.2 Stock Taking

During the period the Directorate staff participated in stock counting and physical verification of assets and preparation of their related reconciliations for the year ended 30th June 2014.

23.2.3 Audited Accounts

The accounts mentioned below were prepared and their audits facilitated by the Directorate during the reporting period: -

23.2.4 University Financial Statements

The University Financial Statements for the year ended 30th June, 2014 were prepared by the Directorate and audited by MS BDO East African on behalf of the Controller and Auditor General during the reporting period. They obtained unqualified opinion.

23.2.5 Projects Accounts

The accounts in table 47 have been were subjected to separate audits.

Table 47: Table of Audited Accounts

NAME OF PROJECT	AUDIT FIRM
Sida Lusaka Grant	TAC Associate
Building Capacity for HIV/AIDS	Deloitte & Touche
Tanzania AIDS Prevention	Innovex
Iringa Combination Prevention HIV	Deloitte & Touche
NORHED Project	Deloitte & Touche
Sida Projects	Deloitte & Touche

23.2.6 Quarterly Financial Reports

The Directorate continued to prepare Quarterly financial reports on Government finances, internally generated funds and donor funds during the financial year 2014/2015.

23.2.7 Opening of Bank Accounts

During the reporting period, separate bank accounts for all large donor funded projects and one bank Account for small donor funded projects were opened. Bank accounts for big projects, which were opened, included the Wellcome Trust, HDIF, SHARE-IT and NORHED. The opening of the separate Bank accounts for projects was in response to donor conditions requirements and CAG auditors advise to avoid co-mingling of donor and Government funds.

23.2.8 Re - Location of the Department of Projects Accounts.

In order to reduce congestion in the Directorate of Finance offices, Projects Accounts Department was re-located into GIZ Building during the reporting period. All Project Accounts Department staff are now working under one roof in that building.

23.2.9 Re-Creation Chart of Accounts for Research Projects

MUHAS Chart of Accounts for Research Projects was re-created in order to enable capturing of research expensing as per their budgets and according to their respective expenditure categories. Set up in EPICOR Financial System was made to capture this development. Small projects started using one expenditure code for each project to post all their payments.

23.2.10 Separation of Dental NHIF Income from MNH

With effect from October, 2014 the University started to collect the National Health Insurance Fund payments accruing from rendering dental services directly instead of getting payments through Muhimbili National Hospital. Although this created additional workload to the Directorate, it substantially boosted dental income collection.

23.2.11 Recruitment

In liaison with the Directorate of Human Resources Management and Administration two accountants were recruited in November, 2014.

23.2.12 Rehabilitation of Finance Offices

In liaison with the Directorate of Estates, activities toward rehabilitation of Finance offices started during the reporting period. Bill of quantities were prepared and contract to carry out rehabilitation of the roof was awarded during the reporting period.

23.2.13 Improved EPICOR Operations

In liaison with the Directorate of Information and Communication Technology, EPICOR Local Area Network was improved by installing three Cisco switches 2960g in Finance, Procurement Management Unit and MUHAS - Harvard project offices. In addition to that power backup was acquired and financed by the Ministry of Education and Vocational Training under World Bank project. Further to that three external backup drive ITBs were acquired as additional data backup. The backup is done continuously as need arises.

23.2.14 Routine Activities.

The Directorate continued with preparations and execution of all of the University payments and collection of revenue.

23.2.15 Performance Appraisal

Performance appraisal for the Directorate staff was conducted and forms submitted in June, 2015.

23.2.16 Best Worker

Ms Rabia Salim, Principal Assistant Accountant in the Department of Expenditure became Departmental as well as overall Directorate best worker.

23.3 Trainings, Seminars, Workshops and Conferences

During the reporting period Directorate of Finance staff participated in various trainings, seminars, workshops and conferences as part of in-service training or CPD: -

- Two staff attended Pre & Post Awards Training conducted at MUHAS by Dartmouth trainers on 14th October 2014. Workshop Objective was to establish new initiatives and training on strategic planning for research administration and identify the challenges facing Office of Sponsored Project and Research Administrators at MUHAS.

- Conducted EPICOR Financial System training to all Accountants & Procurement staff to familiarize with EPICOR functionalities and various reports and also introduce of new Chart of Accounts to be used for Research Projects. This training was conducted at MUHAS and facilitated by Projects Accounts Department on 15th February, 2015.
- Two staff attended African Research Administrators workshop in Kampala Uganda on 15th December, 2014. The objective of the workshop was to increase research capacity for research Administrators.
- One staff attended Financial Training Workshop at SUA-Morogoro on 15th March, 2015 conducted by Southern African Centre for Infectious Diseases Surveillance. Training objective was to build confidence and skills to Principal Investigators and Finance staff in order to implement sound financial Management system for the Projects funds.
- Three MUHAS staff including one from the Directorate of Finance attended National Council of Research Administrators Conference in Portland and Grants Management training at Dartmouth College-United States of America. The objectives of the trainings were to increase Research capacity for Research Administrators to be able to implement and assist PIs in Pre & Post Awards Research activities.
- Head of Departments in the Directorate of Finance attended Grants management training from 20th-22nd October, 2014 at MUHAS, conducted by MUHAS in collaboration with Dartmouth University.
- Head of departments attended training on bulk purchase procurement system and crosscutting services using special contracts “*Mafunzo juu ya mfumo wa ununuzi wa pamoja wan a huduma mtambuka kwa kutumia mikataba maalum*” conducted from 20-21st November, 2014.
- Head of Departments attended a training workshop for Development of Standard Operating Procedures of the MUHAS Medical Center – Mloganzila, conducted at MUHAS from 19- 20th May, 2015.
- Two accountants passed final examinations for the award of Certified Public Accountant (CPA-T) in May, 2015.
- One staff attended training workshop on International Public Sector Accounting Standards from 26-29th May, 2019 in Morogoro.
- Three staff attended EPICOR training, which was conducted in Dubai from 18th to 22nd August, 2014.
- One staff attended a workshop in South Korea on Hospital Management and Financial Sustainability from 18th -25th April, 2015.

23.4 Challenges

- Inadequate staff in terms of number and qualifications.
- Inadequate office space.
- Low level of knowledge in application of EPICOR and other accounting packages namely Excel.

- Inadequate funding.
- Limited on job training opportunities due to funding.

24.5 Audited Financial Statement for 2014/2015

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES
REPORT OF THE COUNCIL AND FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH JUNE 2015

STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 30TH JUNE 2015

	30.06.2015 TZS	30.06.2014 TZS
Cash flows from operating activities		
Surplus/ (Deficit) for the Year	48,195,971,202	(2,502,398,473)
Adjustment for:		
Depreciation	1,629,754,738	2,398,876,537
Amortization	-	5,800,102
Gain on disposal of assets	(6,082,847)	-
Prior year adjustment	(273,737,843)	280,700,325
Operating surplus before changes in working capital items	49,545,905,251	182,978,491
Changes in Working Capital:		
Change in inventory	234,700,246	624,773,403
Change in trade and other receivables	1,293,735,095	(5,609,712,782)
Change in trade and other payables	1,982,640,287	1,406,899,476
Net Cash Flows used in operating activities	53,056,980,879	(3,395,061,412)
CASH FLOWS FROM INVESTING ACTIVITIES		
Acquisition of property and equipment	(237,358,120)	(550,821,763)
Additional work in progress	(42,074,259,662)	(879,013,074)
Proceeds from sale of motor vehicles	16,050,000	-
Net Cash flows used in Investing Activities	(42,295,567,782)	(1,429,834,837)
CASH FLOWS FROM FINANCING		
Capital fund	-	-
Donor grants	-	-
Net Cash Generated from Flows Financing Activities	-	-
(DECREASE)/INCREASE IN CASH AND CASH EQUIVALENT	10,761,413,097	(4,824,896,249)
Cash and cash equivalents at beginning of the year	3,421,309,656	8,246,205,905
CASH AND CASH EQUIVALENTS AT THE END OF THE YEAR	14,182,722,753	3,421,309,656

The accounting policies and the notes on page 24 to 42 form an integral part of these financial statements.

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES
REPORT OF THE COUNCIL AND FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH JUNE 2015

STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 30TH JUNE 2015

	CAPITAL FUND	REVALUATION RESERVE	ACCUMULATED SURPLUS/(DEFICIT)	TOTAL
	TZS	TZS	TZS	TZS
Balance as at 1st July 2013	29,029,722,438	55,669,886,352	(1,708,391,263)	82,991,217,5
Mloganzila	-	-	280,700,325	280,700,3
Development costs	-	-	(2,502,398,473)	(2,502,398,4
Surplus/(Deficit) for the year	-	-		
Balance as at 30th June 2014	<u>29,029,722,438</u>	<u>55,669,886,352</u>	<u>(3,930,089,411)</u>	<u>80,769,519,3</u>
Balance as at 1st July 2014	29,029,722,438	55,669,886,352	(3,930,089,411)	80,769,519,3
Prior year adjustment	-	-	(273,737,843)	(273,737,8
Surplus/(Deficit) for the year	-	-	48,195,971,202	48,195,971,2
Balance as at 30th June 2015	<u>29,029,722,438</u>	<u>55,669,886,352</u>	<u>43,992,143,949</u>	<u>128,691,752,7</u>

The accounting policies and the notes on page 24 to 42 form an integral part of these financial statements.

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES
REPORT OF THE COUNCIL AND FINANCIAL STATEMENTS FOR THE YEAR ENDED 30TH JUNE 2015

STATEMENT OF FINANCIAL POSITION AS AT 30TH JUNE 2015

ASSETS	NOTES	30.06.2015 TZS	30.06.2014 TZS
NON-CURRENT ASSETS			
Property plant and equipment	4	74,086,618,582	75,488,982,353
Epicor accounting software	5	313,480	313,480
Capital works in progress	6	45,690,561,502	3,616,301,840
Total		119,777,493,564	79,105,597,673
Current Assets			
Inventories	7	16,452,600	251,152,846
Trade and other receivables	8	4,879,371,865	6,173,106,960
Cash and cash equivalents	9	14,182,722,753	3,421,309,656
		19,078,547,218	9,845,569,462
TOTAL ASSETS		138,856,040,782	88,951,167,135
EQUITY AND LIABILITIES			
Equity			
Capital fund	10	29,029,722,438	29,029,722,438
Revaluation reserves	11	55,669,886,352	55,669,886,352
Accumulated surplus/ (Deficit)	12	43,992,143,949	(3,930,089,411)
Total Equity		128,691,752,739	80,769,519,379
LIABILITIES			
Non-Current Liabilities			
Donor capital grant	13	5,820,364,781	5,820,364,781
Current Liabilities			
Trade and other payables	14	4,335,726,752	2,353,086,465
Other short term liabilities	15	8,196,510	8,196,510
		4,343,923,262	2,361,282,975
TOTAL EQUITY AND LIABILITIES		138,856,040,782	88,951,167,135

The accounting policies and the notes on page 24 to 42 form an integral part of these financial statements

CHAIRPERSON Prof. H. K. Kariuki COUNCILMEMBER Dr. M. W. Njiru

DATE: 01-03-2016 DATE: 1/3/2016

24.0 External Relations Unit



Dr. B. Balandya

Introduction

During the reporting period the External Relations Unit (ERU) received and processed applications for elective period of study in different departments within the Schools of Medicine, Public Health & Social Sciences, Dentistry, Nursing; and the Institute of Traditional Medicine.

The Unit received, registered and allocated a total of 113 electives and 14 exchange study students at MUHAS in the reporting year. The unit also registered 12 occasional students who took their elective study in 4 different hospitals in Tanzania. The number of elective, exchange and occasional students has been decreasing in the recent years. This is partly because of the increase in competition as medical universities have been increasing in the country, but also because of the start of elective programmes at the Muhimbili National Hospital (our biggest competitors). Specific details and elaborations appear in the subsequent sections.

24.1 Elective Study Activities

Elective study students from Europe especially Britain and Germany, arranged for their elective individually, by applying to different teaching hospitals and or universities for clinical rotations. There were some institutions like WORK THE WORLD and WORLD UNITE that coordinated elective study applications and placements. Previously, MUHAS used to receive a good number of elective students from the two institutions; but the numbers declined because some students are taken straight to Muhimbili National Hospital (MNH) as they now have an agreement with MNH as well.

Most Universities from the USA, Canada, Norway and some other parts had a formal arrangement and their elective were centrally coordinated with more or less fixed time when they started and specific places where they did their elective.

24.1.1 Institutionally Arranged/ Coordinated Elective Study

A number of universities/institutions had an agreement with MUHAS regarding elective studies. Their coordinator of elective studies sent applications of students to MUHAS, and the feedback was given to this coordinator. A few other universities that did not have an agreement with MUHAS also used the coordinators to apply for elective studies for their students: -

Nine students were registered through Work the World to rotate in various schools of MUHAS.

MUHAS also received 3 students under the IAESTE programme, which was coordinated by the Open University of Dar es salaam. These rotated in the school of Pharmacy, school of Medicine and School of Nursing.

Two elective study students for the Institute of Traditional Medicine came to participate in research that is under Dr. Joseph Otieno; while 7 came to participate in the Nodding syndrome research under Prof. Matuja.

A group of 8 students from the Umea University and Uppsala University, Sweden did a one-month clinical nursing rotation at the Buguruni Health centre under the agreement with the School of Nursing. Another group of 5 students from Bergen University, Norway also came under an agreement with the school of Nursing.

Through an agreement with Pennsylvania State University and the Palme Exchange, the school of nursing received 8 and 3 students respectively.

The school of nursing also has an agreement with the HINT-NAMSOS – NORD TRONDELAG for elective placements. This year it received 4 students under this agreement.

The Paediatrics department received 5 students under an exchange programme with Umea University, Japan.

This year MUHAS received 8 students from Schulich School of Medicine of Western University, Canada for a 4 weeks' clinical rotation in the school of Medicine. This was the first placement from this university.

The school of Medicine also received 2 students from the Norwegian University of Science and Technology under an agreement with the school of Medicine.

The Dartmouth University, USA sent one student to the school of medicine who rotated in the Internal medicine department.

The Harvard Boston University Hospital, USA sent one pediatric resident to the school of Medicine through an arrangement with the Department of Paediatrics and Child Health.

24.1.2 Student Initiated Elective Study Arrangement

A number of students applied on their own for the elective studies after seeing the information on the MUHAS website or after they heard about it from others who had been here before. Their universities were involved during the application process by filling the last part of the application forms for each student and writing a recommendation letter. At times the students applied directly to the school/department of their choice, and they were then advised to bring their applications to the foreign relations unit.

24.1.3 Number of elective study students

In the reporting period, the unit received a total of 113 elective and 14 exchange study students. Some of the students rotated in just one department, but majority rotated in more than one department (in the school of Medicine).

The school of Nursing received and supervised the largest number of students (49) followed by the school of Medicine.

Within the school of medicine, most students rotated in Surgery (35), Obstetrics and Gynecology (23), Paediatrics and Child Health (20) and Internal Medicine (16) departments (Table 48).

The School of Pharmacy and the School of Public Health and Social Sciences had the least number of students (one each for the whole reporting period).

24.1.3 MUHAS Registered Foreign Occasional Students

The number of occasional students registered at MUHAS for doing elective periods of study in other hospitals outside MUHAS was 12. These students did their clinical rotations/research in 4 different hospitals as seen in table 49 below. Majority of the students were those who were involved in the epilepsy research for Nodding syndrome at Mahenge hospital, working with Prof. Matuja. This number has decreased significantly from previous years as now students apply through different universities, and sometimes directly to the hospital.

Table 48: Total number of Elective and Exchange Students in MUHAS Departments: Period September 2014 to August 2015

Department / School	Elective	Exchange	Total
Internal Medicine.	12	4	16
Paediatrics & Child Health	11	9	20
Surgery	31	4	35
Obstetrics & Gynaecology	20	3	23
Psychiatry.	3	0	3
Haematology.	2	0	2
Orthopaedics & Trauma	1	0	1
Emergency Medicine	5	0	5
Anaesthesiology	1	0	1
School of Nursing	45	4	49
Institute of Traditional Medicine	0	2	2
Institute of Library Services	1	0	1
School of Dentistry	3	0	3
School of Public Health and Social Sciences	1	0	1
School of Pharmacy	0	1	1
Total	136	27	163

NB: Most students in the school of Medicine rotated in more than one department.

24.2 Student Exchange Activities

The Unit had the opportunity to meet and discuss with coordinators of existing Elective Study Student Exchange Agreements and some of them came to discuss the possibility of an agreement for Exchange arrangements. These include the coordinators of Bergen University, Norway and Neau Ulm University, Germany. Other communications with coordinators were done through emails and at times phone conversation. One prospective discussion was ongoing for the possibility of exchange programmes between MUHAS and the University of Massachusetts, USA, during the period of reporting.

Table 49: Number of Occasional Students in Other Hospitals in the Country: Period September 2014 to August 2015

S/N.	Hospital / Region	Number of students
1.	Sengerema hospital, Mwanza	1
2.	Mahenge hospital, Morogoro	7
3.	Kolandoto hospital, Shinyanga	2
4.	Igongwe hospital- Tukuyu Mbeya	2
Total		12

Among the ongoing collaborative research and student exchange agreement included that of MUHAS and North South - South Higher Education Network Programme (School of public health and social sciences), UMCG/FMS – Groningen University, Netherlands (School of Medicine), HAN University of Applied Sciences (school of Nursing), The St. Radboud University College Holland (community medicine), UCSF (DCEPD), Mie University, Japan (Paediatrics and Child Health), University Medical Centre, The Netherlands (School of Medicine), The Linneus Palme student exchange programme (MUHAS), The University College of London (School of Medicine).

Table 50 below shows the new collaborative research and student exchange agreements, and some of which were reviewed and/or being developed within MUHAS in the reporting period. Prospective Exchange Agreements are at different levels of development and respective schools and departments are involved in their development and establishment.

24.3 Development Matters

The Deputy Vice Chancellor - Academic, Research and Consultancy appointed the following to form the Foreign Relations Committee: -

Prof. Projestin Muganyizi, Dr, Rodrik Kisenge, Dr. Ally Mwanga, Ms. Febronia Uisso, Dr. Anna Kessy, Dr. Patricia Munseri, Dr. Likindikoki, Dr. Sebalda Leshabari, Dr. Hawa Mbawala and Dr. Fredrick Mashili. The chairperson of the committee is Dr. Belinda Balandya.

Table 50: Exchange and Collaborative Activities on Development and reviewed

Title	Institutions	Description	Comments/Status
Student exchange between MUHAS and Norwegian University of Science and Technology	The School of Medicine and Norwegian University of Science and Technology	Student exchange programme for clinical rotations	The contract was already signed. MUHAS has received 2 students in August for a 12 weeks rotation.
Student and Staff Exchange Agreement between Bergen University College (HiB), Norway and the Muhimbili University of Health and Allied Sciences	The Bergen University College and the Schools of Nursing and Medicine; Department of Radiology	The discussion was on including a new category of students and staff, to include physiotherapy and occupational health, on top of nursing and radiology.	Verbal agreement was already done, while waiting the signing of the written agreement.
Buddy programme with MUHAS and Ulm University, Germany	School of Public Health and Social Sciences and Ulm University.	A buddy programme for undergraduate students to include presentations and interviews on health systems between the two countries.	On the final stages of development
Student exchange programme between MUHAS and University of Massachusetts, USA	MUHAS and University of Massachusetts.	Student exchange programme for clinical rotations	On the initial stages of development

The committee started working:

- To develop/update the existing policies and guidelines that govern the exchange programmes.
- To review the distribution of elective bursaries to start to include the foreign relations unit
- To develop an orientation programme for the students
- To propose a fees structure for the postgraduate's students.
- To plan for fund raising so as to be able to offer MUHAS students to benefit on the available exchange programmes with other universities
- To develop a survey monkey for the supervisions
- To develop a new web-link for the new elective website
- To develop a supervision plan for the elective students to include supervision forms and follow up during elective placements

24.4 Support for Resident Permit Class C and/or Visa Application

Foreign students and staff coming to Tanzania for studies or research are by regulation required to have a Resident Permit Class C. Thus the Unit processed and submitted applications for Resident Permit Class C for elective, occasional, foreign degree and diploma registered students and staff on exchange at MUHAS. The Unit identified a strategy for getting Resident Permit applications lodged before the student arrived to reduce delays and improve on the process. This was done at a nominal fee paid directly to MUHAS as service charge. Application forms submitted to MUHAS were attached with the relevant bank transfer documents. However, this process had not guaranteed timely provision of the resident permits.

24.5 Generated Fees

All MUHAS registered foreign students pay registration fees amounting to US \$ 100. Foreign elective study students pay a tuition fee amounting to 45 US\$ per week and research elective study students pay supervision fees amounting to US\$ 35 per week. Students coming under formal exchange arrangements are exempted the total tuition/research supervision fees and/or registration fees depending on the agreement reached in the Memorandum of Understanding between the two universities. From the next academic year, the tuition fees will be US\$ 90 per week. Departments compile accumulated tuition fees and as such the department receives 70% of their total and the respective school receives 20%, and the remaining 10% is retained as institutional capacity building contribution.

24.6 Constraints and Concerns

MUHAS uses MNH as its main teaching hospital, and therefore majority of the elective study students are attached in MNH departments for clinical rotations. In the previous years, all MUHAS registered elective study students were not required to pay any fees to MNH. During the reporting period MNH started its own unit for elective studies and they demanded for payments to be made to MNH (on top of what these students pay at MUHAS). This has been delayed rotations as time was wasted every time to negotiate with MNH authorities regarding this issue. MUHAS and MNH needs to review the Memorandum of Understanding between these two institutions in order to come up with an agreement that will satisfy both sides.

The unit needs an administrator to help with the day to day running of the activities. The current person working at the unit is a member of the academic staff and also a clinician. Therefore, at times the office is closed in order for her to attend other work related activities. This means that the office is not open during all the working hours and this has been a challenge because the foreign students need help from time to time and may find the office is closed. The unit is expanding and planning to include more services to be offered to its guests. This requires additional human resource that will support the expansion, and to ensure that the office is open during all working hours for its guests.

Furthermore, the elective/ exchange students are required to have a resident permit class C as explained in section 3.4 above. Once they arrive at MUHAS, they are required to go to the immigration office in Kurasini to pay for the fees in person, as currently the option of them depositing the money at MUHAS for the unit to follow this up is not feasible. This has caused some students not to go to pay the fees as required, and in this way breach the immigration regulations. Once the unit has an administrator, MUHAS may explore the option of MUHAS handling over all the immigration issues with the students once they are here.

Most students who do clinical rotation are not happy with the way they are treated in the clinical areas. Most of the time they are neglected without a supervisor, and often times people speak in Swahili (a language that they don't understand fully) and therefore are left out of the discussions involving patients and their management. The School of Medicine need to find ways to make more friendly clinical areas, as this may also be one of the factors that the number of elective students has declined over the years.

25.0 Obituary

With deep regret and sorrow, the Vice Chancellor and the MUHAS community remembers the Colleagues who passed on during the reporting period as shown in table below: -

S/N	NAME	DESIGNATION	DATE PASSED AWAY	DIRECTORATE/DEPARTMENT/UNIT
1.	Prof.Zacharia Mbwambo	Associate Research Professor	19.7.2014	Biological and Pre-Clinical Studies
2.	Mr. Charles Katisho	Senior Accountant II	13.10.2014	Directorate of Finance
3.	Dr. Joseph Magadula	Senior Research Fellow	18.11.2014	Natural Products Developments and Formulation.
4.	Mr. Cyprian Makwaya	Lecturer	5.5.2015	Epidemiology and Biostatistics

Appendix 1: Progress report on MUHAS Research Project during 2014/2015

S/N	PI Name	Project donor/Link	Main Project Title and sub-project	Brief Progress Report September 2014 - August 2015
1	Dr. E. Mbagi	European Union	African Programme for Advanced Research Epidemiology Training	The third and final epidemiology fellow was recruited and completed her fellowship in march, 2015. The final project report to EU has been submitted.
2	Dr. E. Mbagi	European Union	ARCADE	Two online courses were delivered during the reporting period and materials for one course on qualitative methodology completed. Final project report submitted to EU.
3	Dr. E. Mbagi	European Union	FGS and HIV infection	The project data collection and analysis completed. Final project report is in preparation.
4	Dr. E. Mbagi	National Aids Control Programme	Integrated Bio-behavioural Survey	Data collection and analysis completed. Final report presented to stakeholders and printed for dissemination.
5	Dr. J. Otieno	University of Uppsala	Post-doctoral Training	There has been a renovation of the new Molecular laboratory at the Institute of Traditional Medicine. The PMU is making final procurement of the equipment to be installed in the lab
6	Dr. J. Sempombe	International Foundation for Science	Search for novel Trypanocidal Agents used in the treatment of Trypanosomiasis from Ethnoveterinary medicine	The project ended up in March 2015. The project focused on screening for the antitrypanosomal activities of traditional medicinal plants known to treat trypanosomiasis in ethno-veterinary field. The objectives of the project included (i) evaluating for cytotoxicity of crude extracts using SRB assay. (ii) To

				<p>evaluate for the in vivo anti-trypanosomal activities against <i>Trypanosoma brucei</i> brucei of crude extracts in mice. (iii) To determine the chemical constituents from the active extracts and evaluate for their in vivo and in vitro anti-trypanosomal activities (iv) To establish molecular structures of the isolated pure compounds. This work resulted into one publication in the East and Central African Journal of Pharmaceutical Sciences (ECAJPS) 17(1), 37-43.</p>
7	Dr. S. R. Kamazima	Pathfinder Int.	Master of Science Behaviour Change Programme	Second cohort (2013/14) are working on dissertations (Semester IV). There was no student enrolled for the reporting period due to lack of sponsorship.
8	Dr. S. R. Kamazima	International Organization	Times Trends in Trafficking in Persons in TZ	Research project concluded and final report presented to IOM.
9	Prof. J. Killewo	USAID through the One Health Central and East Africa Network (OHCEA)	One Health Workforce Project (OHW)	<p>The One Health Workforce Project (OHW) began in November 2014 with the aim of improving worldwide capacity to prevent, detect and respond to infectious disease threats. The project is focused on strengthening training and educational programmes using a trans-disciplinary approach known as One Health in two regional networks of universities: One Health Central and Eastern Africa (OHCEA). OHCEA involves Public Health schools and Vet schools in six countries viz; Tanzania, Kenya, Uganda, Rwanda, DRC and Ethiopia. During</p>

				the reporting period we ran several workshops including; Women and Leadership in academia, Research Proposal development and One Health Leadership workshop involving universities and government relevant to One Health.
10	Prof. J. Killewo	Talloires Network	Youth Economic Participation Initiative - Solve the Equation East Africa (YEPI-SEE)	The overall objective of this programme is to increase graduate employment in East Africa through innovative educational solutions. The goals of the programme include identifying technical skills required to match trends in the market and industry sectors within the East African Community and then equipping graduates with technical & entrepreneurial skills and capacity that matches these skills needs. During the reporting period the project held a University-Industry Forum in which we invited experienced entrepreneurs to inspire students from universities in Dar es salaam. During the same period we prepared incubation centre for making ice creams to obtain necessary permits towards installation of the plant and ran a short course in entrepreneurship involving university students and members of the private sector. The course was held in mid-August 2015.

11	Prof. J. Killewo	USAID through Health Research Challenge for Impact (HRCI) funds channelled to The John Hopkins University	Community Health Worker - Learning Agenda Project (CHW-LAP)	This is a learning agenda research project that aims to support the MoHSW and the CHW Task Force in the implementation of a national CHW cadre. To achieve this, the project has four main objectives that include: (i) a mapping exercise that summarizes existing CHW initiatives across Tanzania; (ii) a stakeholder analysis of different stakeholder views regarding the development of the CHW cadre; (iii) a discrete choice experiment of CHW preference options; and (iv) a costing exercise of existing CHW programmes. During the reporting period all the four objectives were achieved and plans were underway to organize a stakeholders' dialogue for dissemination of findings in September.
12	Prof. J. Killewo	MUHAS-Harvard link initially but various other donors subsequently	Dar es Salaam Urban Cohort Study (DUCS) as a platform that houses several research projects reported separately	Project receives ethical clearance from NIMR annually and routinely collects information from over 100,000 residents of over 20,000 households in Dar es Salaam. This Health and Demographic Surveillance System (HDSS) houses several studies mainly dealing with lifestyle and non-communicable diseases. During the reporting period we completed two rounds of updating events (births, deaths, migrations etc.) as well as conducting two nested studies, one on Hypertension and the other on Ageing.

13	Prof. J. Killewo	USAID through Health Research Challenge for Impact (HRCI) funds channelled to The John Hopkins University	Morogoro Evaluation	The Morogoro Evaluation Project is an external evaluation of the “Integrated Maternal and New-born Health Care Programme in Morogoro Region, Tanzania”, which is being implemented by the Tanzania Ministry of Health and Social Welfare with support from Jhpiego and other partners. During September to December 2014 the project was winding up after 3 years of evaluation activities. This was a no-cost extension period when activities focused on report writing and manuscript development. The project was therefore officially closed on 31st December 2014.
14	Prof. K. Manji	Centre for International Health, Bergen University, Norway in collaboration with Children’s Hospital Boston (Harvard University)	Impact of micronutrient supplementation on neurodevelopment and cognitive function in school-aged children. (a.k.a VITABEGINNING) is a multicentred study to study the role of Vitamin B12 supplementation in early childhood and Neurodevelopment between 5 and 15 years. In Tanzania we are using the participants in child 2 study and PNS study after having the success in following at least 40% of them.	Ethical clearance has been obtained from MUHAS and NIMR. Tools for Nuero development obtained from WHO/saving brains study with due copyrights permission. The PI from Tanzania as well as Children Hospital underwent training in Bangalore, India in May 2015. Intensive training was done on 8 research assistants and 5 paediatric residents on the tools.

15	Dr K. Manji	Boston Children Hospital	Child 1 Child 2 Follow-up	The tools have been submitted for approval and stamping by MUHAS IRB before starting to use in the field. Electronic database has been created for the same.
16	Prof. K. Manji	Boston Children's Hospital fund from Bill and Melinda Gates Foundation	Biomarkers of gut function and predictors of linear growth and neurodevelopment status among young Tanzanian children	Study completed analysis of samples and data collection in November 2014. Preliminary results presented at Gates foundation in January 2015. Manuscripts on /Lipo-polysaccharide/Anti flagellar antibodies vs stunting and wasting: in progress. Study closed.
17	Prof. K. Manji	Harvard-Chan School of Public Health. Forgarty International	Global Infectious Disease Training grant (GID) 2014-2019. Training and mentorship grant for paediatric infectious diseases and nutrition, excluding HIV and TB.	2 lecturers (Dr. Lulu Chirande and Dr. Deogratias Mkyia) were sent to a HCSPH in July-August 2015 for Bio and Epidemiology courses for 4 and 8 weeks respectively. Dr. Chris Duggan conducted training on research methodology and infectious disease. To all the residents in the department. 3 residents (Dr. T. Pishori, Dr K. Bhimji and Dr. I. Hassam) have been supported for research on neonatal meningitis, prematurity low birth weight and diarrheal disease in relation to Vitamin D. 2 of the 3 have completed data collection. Proposed next year grant will conduct infectious disease training in diarrhoea, pneumonia and sponsor other junior faculty for short courses at Harvard.

19	Dr. P. Muganyizi	Guttmacher Institute	Abortion incidence in Tanzania	Progressed well and will end in December 2015. Everything has been successfully completed including data analysis. A paper from this project has been published in PLOS one open journal and the dissemination for Tanzania will be in January, 2016
20	Prof.O. Minzi	Swedish International Development Agency (Sida)	Malaria Project	One PhD has submitted application for Defense and awaiting Eaaminers' comments, One PhD is writing manuscripts, We just received fund allocation for July-Dec, 2015
21	Prof. M. Moshi	NIH	Establishing Office of Sponsored Projects at MUHAS	Ms. Nana Mgimwa, Ms. Olimpia Venance and Ms. Safina Baleche attended NCURA Regional meeting in Portland, Maine. Followed by a week visit in Dartmouth College. The visit focused on learning and exchanging experience on research management in MUHAS and partner institutions. Mentorship and online training programmes are being established by partner institutions
22	Dr. Mangi Ezekiel	Global fund	Prevalence & Predictors of HIV infection among Adults	Completed and closed. Final report submitted to donor
23	Dr. M. Ezekiel	USAID	Chanelling Men's Positive Involvement in the National HIV/AIDS Response (CHAMPION)	Project completed and closed, report submitted to donor

24	Prof S. Kaaya	CDC/Harvard School of Public Health	Public Health Evaluation, Agents for Change	In analysis and writing stage. Dissemination workshop held in October 2014. 1 article and several manuscripts in progress 1) Siril et al 2014 J Int Assoc Provid AIDS Care. doi:10.1177/2325957414539195; Study close out activities almost complete.
25	Prof.S.Kaaya	WESTAT INC-Dartmouth	CRS-MUHAS	Good progress - main activities preparation of site for implementation of a number of PMTCT trials. Main challenges: 1) Ensuring alternative electricity supply at both IDC and MUHAS sites and 2) Delays in MUHAS IRB -- Requested in May 2015 and to date clearance not yet issued. This reduces the MUHAS CRS as a potential site to multi-site studies of this nature
26	Prof. M Aboud	NIH/ Forgarty International Center	International Extramural Research Development Award	Facilitated three days training in Publishing Science, July 2015. Conducted two days seminar for Authorized Organization Representatives. Application on carry over fund to support Post graduate students on dissertation proposal development sent to donor. Developing Standard Operating Procedure for Office of Sponsored Programmes. The report has been sent to DRP for onward submission. Supported one day training for accountants on MUHAS financial regulations. Five administrative staff attended ARAA annual meeting in Kampala, Uganda December 2014. Support on electronic submissions to grant.gov is

				ongoing
27	Prof. M. Aboud	NIH	DPRET- Dartmouth- Penn Research Ethics Training Programme	Received a supplement grant which facilitated five regional workshops in Dar es Salaam, Zanzibar, Mbeya, Kilimanjaro and Dodoma. Conducted workshop on Ethical issue on HIV/AIDS, Research and clinical care. Completed and submitted proposal to start department of Bioethics in MUHAS. Completed a curriculum for Masters in Bioethics. Recruited trainees for Masters in Bioethics. MOU with University of Dar es Salaam department of Philosophy developed. Application for Project renewal for five years has been sent. Two manuscript have been submitted for publication
28	Prof.Said Aboud	Delloite Consult Ltd	Microbiology Tunajali	Training and supportive supervision of 32 staff on DBS specimen collection was done in Njombe from 16-27th February 2015; 1000 DBS specimens were collected from 20 health facilities. Testing for HIV viral load was completed at MUHAS and results were issued in May 2015.
29	Prof.Said Aboud	CDDEP	Global Antibiotics Resistance Partnership (GARP)	GARP Tanzania working group and stakeholder's meetings were held in March 2015. Situation analysis report on use and antibiotic resistance in Tanzania was launched on 20th July 2015 by the acting CMO in a meeting attended by GARP Tanzania working group members and stakeholders at the MOHSW headquarters.

				Seminars on sensitization workshops on Infection Prevention Control (IPC) were held at MNH, Amana, Mwananyamala, Hindu Mandal and Aga Khan Hospitals.
30	Prof. G. Kwesigabo	CDC/PEPFAR Boston University School of Public Health Dartmouth Institute for Health Policy and Clinical Practice	Building capacity for HIV/AIDS human resources at the Muhimbili School of Public Health and Social Sciences	Curriculum for long distance training has been developed. Behavioral change lab equipment and teaching material purchased. The project is ongoing
31	Prof. G. Kwesigabo	CDC	Strengthening Health Academic (Share-IT)	Scholarship provided to twenty Phd students on long distance training. Capacity building for faculty to enhance student centered training approaches is being provided. There have been fostered networking with alumni and stake holders. Continuing education has been conducted for people providing health care and treatment
32	Dr. Renatha Joseph	University of Pennsylvania	Interprofessional Practice and Education Collaborative Initiative with African Countries	This is a qualitative study assesing the relationship between nurses and doctors in Tanzania. We have completed data collection from 4 sites and we are in process of data analysis.
33	Dr. C. Moshiro	Muhimbili Research Programme- Wellcome Trust- UK	MUHAS/ Afrique One Project	No information provided
34	Dr. H. Naburi	Dartmouth	Paediatric care and treatment	No information provided

35	Dr. I. Semali	Bill and Mellinda Gates foundation/Management Sciences for Health	Measuring Household medicine use in ADDO Districts of Tanzania	No information provided
35	Dr. J.K.K. Mbwambo	CDC	Tanzania AIDS Prevention programme (TAPP2)	No information provided
36	Dr. J.K.K. Mbwambo	Johns Hopkins Collaboration	Understanding and Interpretations of communication campaign messages about concurrent partnerships, acute HIV infection and sexual networks	No information provided
37	Dr. J. K.K. Mbwambo	National Institutes of Health	RTC Comprehensive Triaged HIV Prevention	No information provided
38	Dr. J. K.K. Mbwambo/Dr. S. Likindikoki	USAID/John Hopkins Bloomberg School of Public Health	Assessing barriers and facilitators to linkages to care in Iringa, Tanzania	No information provided
39	Dr. J. Makani	Muhimbili Wellcome Programme	Genetic determinants of clinical heterogeneity in Sickle Cell disease.	No information provided
40	Dr. J. Makani, Dr. S. Cox	London School of Medicine	Vascular Function Intervention Trial in Sickle cell	No information provided
41	Dr. J. Makani, N. Mulder	University of Capetown	H3ABioNet: a sustainable African Bioinformatics Network for H3Africa	No information provided
42	Dr. J. Makani, Prof. C. Newton, Dr. S. Cox	Muhimbili Wellcome Programme	Strategic Project	No information provided

43	Dr. J. Makani, S. Cox,SL Thein	Muhimbili Wellcome Programme	Haematology Programme of anaemia and its therapy (PAST)	No information provided
44	Dr. J. R. Masalu	Swedish International Development Agency (Sida)	Research Capacity Strengthening and contingency fund for Sida project	No information provided
45	Dr. S. Leshabari	St. Lukes Midwifery College, Tokyo, Japan	The Center of Asia Africa Midwifery Research	No information provided
46	Dr. S. Leshabari	Norwegian Development for Higher Education (NOMA) Training Support	NOMA Regional Master in Nursing	No information provided
47	Dr. T. Nyamhanga	SIKIKI	Corruption in public health facilities	No information provided
48	Dr. T.W Kohi	PEPFAR	Teaching and learning about HIV/AIDS in Tanzania Schools	No information provided
49	Ms. Lusajo Kajula, Dr. J.K.K. Mbwambo	National Institutes of Health (NIH) in collaboration with University of North Carolina (UNC)	Identifying venues to prevent HIV and violence for youth in Tandale district, Dar es Salaam	No information provided
50	Prof. A. D. Kiwara	DANIDA	Health Insurance in Ghana and Tanzania: Addressing Equity and Accessibility.	No information provided
51	Prof. A. D. Kiwara	Sida	Health Systems Research	No information provided
52	Prof. D. Simba	Grand Challenge Canada	Malaria drugs on wheels	No information provided
53	Prof. E. Lyamuya	EDCTP	TaMoVac- 02	No information provided

55	Dr. C. Killewo	Swedish International Development Agency (Sida)	Prevention of Mother to Child HIV Transmission (PMTCT)	No information provided
56	Prof. M. Matee	Sokoine University	National Consortium for Infectious Disease Surveillance	No information provided
57	Dr. E.T. Lwoga	Sida	ICT and Library Support	No information provided
58	Prof. N. Moshi	Dar Dar Health studies- Receiving funds from NIH	Prevalence of hearing deficits and its association with HIV seroprevalence: A cross sectional study in HIV+ adults with frequency matching to HIV- controls	No information provided
60	Prof. S. Massawe	Sida	Reproductive Health Projects	No information provided
61	Prof. S. Massawe	Karolinska Institute	Global health course	No information provided
62	Prof. W. Matuja	Norwegian Development for Higher Education (NOMA) Training Support	Post graduate Programme MSc Internal Medicine(MSc Cardiology and MSc Nephrology)MME D Radiology	No information provided
63	Prof. W. Matuja	German Research Foundation/ Munich University	Palliative Care in Tanzania Exemplified by Cancer: A Hospital Based Ethnography in Dar es Salaam, Tanzania	No information provided
64	Prof. W. Matuja	German Research Foundation	Neurocysticercosis and Epilepsy in urban and rural Tanzania	No information provided

65	Dr. E. Innocent	COSTECH	Formulation and standardization of herbal medicines from Garcinia and Combretum plant species growing in Tanzania for managing HIV/AIDS and related symptoms	No information provided
66	Dr. D. Mloka	NIMR	Antimicrobial activity of extracts of Combretaceae family plants against drug resistant and biofilm forming bacteria and Candida species isolated from HIV/AIDS patients	No information provided
67	Prof. M. Moshi	NIH	Establishing Office of Sponsored Projects at MUHAS	No information provided
68	Prof. M. Bakari	NIH	Tuberculosis Research Institute at MUHAS	No information provided
69	Dr. S. Leshabari	NIH	Centering Pregnancy (CP) The evidence-based model of group Antenatal Care	No information provided
70	Dr E. Innocent	Stokholm University	Natural products with anti HIV properties	No information provided
71	Dr Simon Mamuya	NORAD	Reduction of burden of injuries and disease in low income countries	No information provided
72	Dr Edda Tandi Lwoga	ITOCA-Info Training	Essential Electronic Agricultural Library	No information provided

73	Prof.E.Kaale	COSTECH	Application of Nanomedicine in enhancing Antimalaria	No information provided
74	Dr ET Lwoga	Elsevier Foundation	Strengthening professionals skills in evidence based health care in Tanzania	No information provided
75	Dr Edda Tandilwoga	Bill and Melinda Gates Foundation and Information, Training and Outreach Center for Africa (ITOCA)	Essential Electronic Agricultural Library	No information provided
76	Dr.Edda Tandilwoga	COSTECH	Contribution of information & Communication Technology	No information provided
77	Dr. D. Urassa	PEPFAR/NIH	Afya bora consortium (ABC)	No information provided
78	Dr M. Mtaya Mlangwa	B/O Stichting Kathole	TASENE CLP Project	No information provided
79	Dr E. Innocent	UNDP	Conserving repellent plants in Enduimet wildlife	No information provided
80	Dr T. Kohi	American International Health	Teaching and Learning HIV/AIDS IN Tanzania	No information provided
81	Dr. Julie Makani	University of Capetown	Ambroises Award Project	No information provided
82	Dr. Derick Chitama	I/SCHWELZ TROPICAL ROPEN	Costing Methods for Malaria Service Delivery	No information provided
83	Dr. M. Mafwiri	Sight savers	MCBI Combating Childhood Blindness inTZ	No information provided
84	Dr. Henry Sawe	University of California San	Student Exchange Global Medicine	No information provided

		Francisco		
85	Dr. Julie Makani	GRM International Ltd	New Born Screening for Child Survival	No information provided
86	Prof. G. Kwesigabo	KCMC	MUHAS KCMC MEPI	No information provided
87	Dr. F. Mashili	INASP	Grant Writing Training	No information provided
88	Dr. Thecla Kohi	Dalhousie University-Canada	Innovation Exchange-Strengthening Evidence Based	No information provided
89	Dr. M A Mwangi	GTZ	MUSKOKA Baseline Survey	No information provided
90	Dr. D. Mloka	NIMR	Antimicrobial activity of extracts of Combretaceae family plants against drug resistant and biofilm forming bacteria and Candida species isolated from HIV/AIDS patients	No information provided
91	Dr. Renatha Joseph	University of Pennsylvania	Interprofessional Practice and Education Collaborative Initiative with African Countries	No information provided
92	Dr. E. Mugonzibwa	The Finnish Medical Society (DUODECIM)	Finnish Tanzania Global health course	Closed

93	Dr. G. Kwesigabo	CDC	Violence against children study: Retrospective self reports from 13- 24 years old males and females in Tanzania, a collaborative venture between SPHSS, UNICEF and CDC	Closed
94	Dr. G. Kwesigabo	CDC/PEPFAR Boston University School of Public Health Dartmouth Institute for Health Policy and Clinical Practice	Building capacity for HIV/AIDS human resources at the Muhimbili School of Public Health and Social Sciences	Closed
95	Dr. J.K.K. Mbwambo	Johns Hopkins Collaboration	Understanding and Interpretations of communication campaign messages about concurrent partnerships, acute HIV infection and sexual networks	Closed
96	Dr. J.K.K. Mbwambo/Lusajo Kajula/F.Kisanga	Future Group	SEARCH Tanzania GBV	Closed
97	Dr. J. K.K. Mbwambo	National Institutes of Health	RTC Comprehensive Triaged HIV Prevention	Closed
98	Dr. J. K.K. Mbwambo/Dr. S. Likindikoki	USAID/John Hopkins Bloomberg School of Public Health	Assessing barriers and facilitators to linkages to care in Iringa, Tanzania	Closed

99	Dr. S. R. Kamazima	Pathfinder Int.	Master of Science Behavior Change Programme	Closed
100	Dr. C. Killewo	Swedish International Development Agency (Sida)	Prevention of Mother to Child HIV Transmission (PMTCT)	Closed
101	Prof. F. Mugusi	Swedish International Development Agency (Sida)	Improved Clinical Management of TB in HIV co-infected individuals in Tanzania	Closed
102	Dr. A. Mwakigonja	Sida	HIV and Malignancies	Closed
103	Prof. M. Leshabari	UNAIDS	UNAIDS MSM project	Closed
104	Prof. M.T Leshabari	European Union	Quality of maternal and perinatal care: Bridging the know do gap	Closed
105	Prof. S. Kaaya	PREPARE Project, In-collaboration with University of Bergen: Funds from the EU	Promoting sexual and Reproductive Health amongst Adolescents in Southern and Eastern Africa	Closed
106	Prof M. T Leshabari	University of Oslo	MARPs	Closed
107	Prof M. Bakari	SMITTSKYDD S Institute	Youth study at IDC Project	Closed
108	Prof F Mugusi	Private Health Lab Board	Antimalaria efficacy	Closed
109	Prof F Mugusi	Harvard School of Public Health	Malaria suppliment	Closed
110	Prof. F. Mugusi	MUHAS-Harvard, Funds from NIH	Malaria 2: malaria in pregnancy, nutrition and immunological effects	Closed

111	Prof. F.Mugusi	University of Bergen	B12 Follow up	Closed
112	Dr.Thecla Kohi	Dalhousie University-Canada	Innovation Exchange-Strengthening Evidence Based	Closed
113	Dr.J.K.K Mbwambo	John Hopikins University	Community Based Combination HIV Prevention in TZ	Closed

Appendix II: Summary of papers published by staff during the reporting period

S/N	AUTHORS	TITLE OF PUBLICATIONS
1	Aamodt, H., Mohn, S. C., Maselle, S., Manji, K. P., Willems, R., Jureen, R., Blomberg, B.	Genetic relatedness and risk factor analysis of ampicillin-resistant and high-level gentamicin-resistant enterococci causing bloodstream infections in Tanzanian children. BMC infectious diseases, 15(1), 107(2015).
2	Abbas A, Hussain M, Iqbal M, Arshad S, Rasool S, Shafiq M, Yaqub N.	Barriers and Reforms for Promoting ICTs in Rural Areas of Pakistan. In Design, User Experience, and Usability. User Experience Design for Everyday Life Applications and Services. 2014; 391-39.
3	Abeid, M., Muganyizi, P., Massawe, S., Mpembeni, R., Darj, E., & Axemo, P.	Knowledge and attitude towards rape and child sexual abuse—a community-based cross-sectional study in Rural Tanzania. BMC public health, 15(1), 428.(2015).
4	Abioye, Ajibola I., Sheila Isanaka, Enju Liu, Ramadhani S. Mwiru, Ramadhani A. Noor, Donna Spiegelman, Ferdinand Mugusi, and Wafaie Fawzi.	Gender differences in diet and nutrition among adults initiating antiretroviral therapy in Dar es Salaam, Tanzania." AIDS Care: Psychological and Socio-medical Aspects of AIDS/HIV 27, no. 6 (2015).
5	Aboubrahim A, Ibrahim T, Nath P.	Probe of new physics using precision measurement of the electron magnetic moment. Physical ReviewD. 2014; 89(9): 093016.
6	Abrahão AL, Marques D, de Senna M.A.A, Aboud S, Andrade M, de Souza ÂC.	Working within Groups of Teachers: Teaching and Learning Implications in Health Services.2014.
7	Ahmad N, MuhdYusoff F, Ratnasingam S, Mohamed F, Nasir NH, MohdSallehuddin S, Aris T.	Trends and factors associated with mental health problems among children and adolescents in Malaysia. International Journal of Culture and Mental Health, (ahead-of-print).2014; 1-12.
8	Ahmad WM., Shafiq M, Halim N, Aleng NA.	A Study of Triglycerides Level in Three Distinct Phases of Human Blood Pressure: A Case Study from Previous Projects. Applied Mathematical Sciences. 2014; 8(46): 2289-2305.
9	Ahmed SF, Mansour AM, Klena JD, Husain TS, Hassan KA, Mohamed F, Steele, D.	Rotavirus Genotypes Associated with Acute Diarrhea in Egyptian Infants. The Pediatric infectious disease journal.2014; 33: S62-S68.
10	Ali K, Fajehi M, Rifai D, Adimah R, Ibrahim T.	Long Distance Wireless Monitoring Security House System. Australian Journal of Basic & Applied Sciences. 2014; 8(4).
11	Ali Z, Shafiq M, Asadabadi SJ, Aliabad HR, Khan I, Ahmad I.	Magneto-electronic studies of anti-perovskites NiNMn 3 and ZnNMn 3. Computational Materials Science.2014; 81: 141-145.
12	Almugheid AT, Yousef S, Aboud S.	Performance Evaluation of Quality Metrics for Single and Multi Cell Admission Control with Heterogeneous Traffic in WCDMA Networks. International Journal of Engineering and Technology. 2014; 4(1).
13	Aloyce R, Leshabari S, Brysiewicz P.	Assessment of knowledge and skills of triage amongst nurses working in the emergency centres in Dar es Salaam, Tanzania. African Journal of Emergency Medicine. 2014; 4(1): 14-18.
14	August, F., Pembe, A. B., Kayombo, E., Mbekenga, C., Axemo, P., & Darj, E. (2015).	Birth preparedness and complication readiness—a qualitative study among community members in rural Tanzania. Global health action, 8.
15	August, F., Pembe, A. B., Mpembeni, R., Axemo, P., & Darj, E.	Men's Knowledge of Obstetric Danger Signs, Birth Preparedness and Complication Readiness in Rural Tanzania. PloS one, 10(5). (2015).
16	Auld AF, Agolory SG, Shiraishi RW, Wabwire-Mangen F, Kwesigabo G, Mulenga M, Ellerbrock TV.	Antiretroviral therapy enrolment characteristics and outcomes among HIV-infected adolescents and young adults compared with older adults-seven African countries, 2004-2013. 2014.

17	Azhar S, Shafiq M, Niazi S.	Scholars Journal of Applied Medical Sciences (SJAMS). 2014;2(IC):348-351
18	Balaji, D., Lambdin, B., Mbwapbo, J., Chang, O., Nyandindi, C., Copenhaver, M., & Bruce, R.	Avoiding treatment due to fears of violence: The first report of gender-based and intimate partner violence in the community and in the hospital among female heroin users in Dar es Salaam, Tanzania. Drug and Alcohol Dependence, (146), e214. (2015).
19	Balandya BS, Pembe AB, Mwakyoma HA.	Cervical pre-malignant lesions in HIV infected women attending care and treatment centre in a tertiary hospital, Dar es Salaam, Tanzania. East African journal of public health. 2014; 8(3): 185-189.
20	Balandya E, Miller AD, Beck M, Liu J, Li H, Borducchi E, Barouch DH.	Adenovirus Serotype 26 and 35 Vectors Induce Simian Immunodeficiency Virus-Specific T lymphocyte Responses in Foreskin in Rhesus Monkeys. Journal of virology. 2014; 88(7): 3756-3765.
21	Baumgartner JN, Green M, Weaver MA, Mpangile G, Kohi TW, Mujaya SN, Lasway C.	Integrating family planning services into HIV care and treatment clinics in Tanzania: evaluation of a facilitated referral model. Health policy and planning. 2014; 29(5): 570-579.
22	Baumgartner, J. N., Kaaya, S., Karungula, H., Kaale, A., Headley, J., & Tolley, E.	Baumgartner, J. N., Kaaya, S., Karungula, H., Kaale, A., Headley, J., & Tolley, E. (2015). Domestic violence among adolescents in HIV prevention research in Tanzania: participant experiences and measurement issues. Maternal and child health journal, 19(1), 33-39. (2015).
23	Beard JH, Oresanya LB, Akoko L, Mwanga A, Mkony CA, Dicker RA.	Surgical Task-Shifting in a Low-Resource Setting: Outcomes after Major Surgery Performed by Nonphysician Clinicians in Tanzania. World journal of surgery. 2014; 38(6): 1398-1404.
24	Beckham, S. W., Shembilu, C. R., Brahmabhatt, H., Winch, P. J., Beyrer, C., & Kerrigan, D. L.	Female Sex Workers' Experiences with Intended Pregnancy and Antenatal Care Services in Southern Tanzania. Studies in family planning, 46(1), 55-71. (2015).
25	Beckham, S. W., Shembilu, C. R., Winch, P. J., Beyrer, C., & Kerrigan, D. L.	'If you have children, you have responsibilities': motherhood, sex work and HIV in southern Tanzania. Culture, health & sexuality, 17(2), 165-179. (2015).
26	Bekele E, Bodmer WF, Bradman N, Craig IW, Makani J, Povey S, Ababa E.	Molecular genetics research in sub-Saharan Africa: how can the international community help? The HUGO Journal. 2014; 8(1): 2.
27	Bertoldo F, Silvestris F, Ibrahim T, Cognetti F, Generali D, Ripamonti CI, Santini D.	Targeting bone metastatic cancer: Role of the mTOR pathway. Biochimica et Biophysica Acta (BBA)-Reviews on Cancer. 2014; 1845(2): 248-254.
28	Bhave S, Eslami R, Jacob M.	Sparse spectral deconvolution algorithm for noncartesian MR spectroscopic imaging. Magnetic Resonance in Medicine. 2014; 71(2): 469-476.
29	Bintabara, D., Mohamed, M. A., Mghamba, J., Wasswa, P., & Mpenbeni, R. N.	Birth preparedness and complication readiness among recently delivered women in chamwino district, central Tanzania: a cross sectional study. Reproductive health, 12(1), 44. (2015).
30	Blanco I, Mathai S, Shafiq M, Boyce D, Kolb TM, Chami H, Hassoun PM.	Severity of Systemic Sclerosis-Associated Pulmonary Arterial Hypertension in African Americans. Medicine. 2014; 93(5): 177-185.
31	Bleakley A, Hennessy M, Mallya G, Romer D.	Home smoking policies in urban households with children and smokers. Preventive medicine. 2014; 62: 30-34.
32	Bongiovanni A, Ricci M, Riva N, Calpona S, Oboldi D, Pieri F, Ibrahim T.	Pleural effusion in a patient with metastatic gastrointestinal stromal tumor treated with imatinib: case report. Future Oncology. 2014; 10(15): 2423-2427.
33	Bosse G, Ngoli B, Leshabari MT, Külker R, Dämmrich T, Abels W, Spies C.	Quality of health care and the need for assessment. East African journal of public health. 2014; 8(3): 199-204.
34	Brooks M, Bryant M, Shann M, Bukuluki P, Lugalla J, Kwesigabo G.	Gender analysis of educational support programmes for OVC in Uganda and Tanzania: are they helping girls in secondary school? Vulnerable Children and Youth Studies. 2014; 9(3): 206-219.
35	Brousse V, Makani J, Rees DC.	Management of sickle cell disease in the community. BMJ. 2014; 348.
36	Bryan L, Ibrahim T, Zent R,	The kidney research predicament. Journal of the American Society of

	Fischer MJ.	Nephrology. 2014; ASN-2013121313. 2014.
37	Bulemela JC, Ngibarwa EN, Ramaiya K, Bizzari C.	Prevalence of Undescended Testis and its Associated Factors among under-fives seen at Reproductive and Child Health Clinic in Ifakara, Tanzania. Tanzania Medical Journal. 2014; 26(2): 18-23.
38	Carneiro LC, Ferreira AF, Padua M, Saut JP, Ferraudo AS, dos Santos RM.	Incidence of subclinical endometritis and its effects on reproductive performance of crossbred dairy cows. Tropical animal health and production. 2014; 46(8): 1435-1439.
39	Carrera E, Linares A, Joachim A, Jean-Baptiste M, Speth R.	MCA-APK (Dnp) is not a selective substrate of angiotensin-converting enzyme-2 (1067.6). The FASEB Journal. 2014; 28(1): 1067-6.
40	Cassese S, Byrne RA, Tada T, Pinieck S, Joner M, Ibrahim T, Kastrati A.	Incidence and predictors of restenosis after coronary stenting in 10 004 patients with surveillance angiography. Heart. 2014; 100(2): 153-159.
41	Chacha, C. E., & Kazaura, M. R.	Body-art practices among undergraduate medical university students in Dar Es Salaam, Tanzania, 2014. Indian journal of dermatology, 60(2), 212. (2015).
42	Chande-Mallya, R., & Sife, A. S.	Usage of E-resources in Postgraduate Research at Muhimbili University of Health and Allied Sciences: A Citation Analysis. Huria: Journal of the Open University of Tanzania, 19(1), 54-65. (2015).
43	Changamire FT, Mwiru RS, Msamanga GI, Spiegelman D, Urassa W, Hertzmark E, Peterson KE.	Macronutrient and sociodemographic determinants of gestational weight gain ng HIV-negative women in Tanzania. Food & Nutrition Bulletin 35(1), 43-50.
44	Chaula SA, Tarimo DS.	Impact of praziquantel mass drug administration campaign on prevalence and intensity of Schistosoma haematobium among schoolchildren in Bahi district, Tanzania. Tanzania Journal of Health Research. 2014; 16(1).
45	Chidzonga, M. M., Carneiro, L. C., Kalyanyama, B. M., Kwamin, F., & Oginni, F. O.	Determinants of oral diseases in the African and Middle East region. Advances in dental research, 27(1), 26-31. (2015).
46	Chillo O, Pagel JI, Kleinert EC, Caballero AM, Mauer A, Hoecker JM, Deindl E.	Arteriogenesis: A natural arteriolar bypass in occlusive cardiovascular diseases. The role of mast cells. In The Second Scientific Conference. 2014.
47	Chillo P, Humphrey SH, Meda J, Kerry VB.	Cardiac Critical Care in Resource-Limited Environments: Lessons from Tanzania. Global Heart. 2014; 9(3): 311-318.
48	Chiwanga, F. S., & Njelekela, M. A.	Diabetic foot: prevalence, knowledge, and foot self-care practices among diabetic patients in Dar es Salaam, Tanzania—a cross-sectional study. Journal of foot and ankle research, 8(1), 20. (2015).
49	Chomi, E. N., Mujinja, P. G., Hansen, K., Kiwara, A. D., & Enemark, U.	Household perceptions towards a redistributive policy across health insurance funds in Tanzania. BMC health services research, 15(1), 102. (2015).
50	Christian, Michael, and Emil Namakuka Kikwilu. "	Knowledge, attitude, reported behaviour and perceived challenges to adhering to infection control measures in dental practice among dental practitioners in Tanzania." Tanzania Dental Journal 18, no. 2 (2015): 64-71.
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52	Cox CM, Babalola S, Kennedy CE, Mbwambo J, Likindikoki S, Kerrigan D.	Determinants of concurrent sexual partnerships within stable relationships: a qualitative study in Tanzania. BMJ open. 2014; 4(2): e003680.
53	Cox SE, Soka D, Kirkham FJ, Newton CR, Prentice AM, Makani J, Younoszai AK.	Tricuspid regurgitant jet velocity and hospitalization in Tanzanian children with sickle cell anemia. Haematologica. 2014; 99(1): e1-e4.
54	Da Silva TVM, Carneiro LC, dos Santos Ramos F, Baethgen LF, Paz AA, Larentis DZ, Pasqualotto AC.	PCR as a Screening Test for Invasive Aspergillosis in Hematological Patients: A Pilot Study. Mycopathologia. 2014; 177(1-2): 111-114.

55	Dalaba, M. A., Akweongo, P., Aborigo, R. A., Saronga, H. P., Williams, J., Aninanya, G. A., ... & Loukanova, S.	Cost to households in treating maternal complications in northern Ghana: a cross sectional study. BMC health services research, 15(1), 34. (2015).
56	Dalaba, M. A., Akweongo, P., Aborigo, R. A., Saronga, H. P., Williams, J., Blank, A., Loukanova, S. et al.	Cost-effectiveness of clinical decision support system in improving maternal health care in Ghana. (2015).
57	Dalal, S., Holmes, M. D., Laurence, C., Bajunirwe, F., Guwatudde, D., Njelekela, M., Adami, H. O. et al.	Feasibility of a large cohort study in sub-Saharan Africa assessed through a four-country study. Global health action, 8.(2015)
58	Danchin N, Puymirat E, Steg PG, Goldstein P, Schiele F, Belle L, Simon T.	Five-year survival in patients with ST-segment elevation myocardial infarction according to modalities of reperfusion therapy: the French Registry on Acute ST-Elevation and Non-ST-Elevation Myocardial Infarction (FAST-MI) 2005 cohort. Circulation, CIRCULATIONAHA-113.2014.
59	Daud H, Gulcharan NFI, Azhar MAM, Nor NM, Ibrahim T.	Development and analysis of wireless heart rate monitoring device. In Industrial Automation, Information and Communications Technology (IAICT), 2014 International Conference on. 2014; 57-63.
60	Daud H, Gulcharan NFI, Azhar MAM, Samsudin MZ, Nor NM, Ibrahim T.	Monitoring Heart Rate and Body Temperature Using Wireless Technology (Zigbee). Applied Mechanics and Materials. 2014; 490: 1565-1574.
61	Daud H, Nayan MY, Gulcharan NFI, Rahman MZA, Nor NM, Ibrahim T.	Design and Implementation of an Internal Rechargeable Powering Source for Zigbee Transponders. World Applied Sciences Journal. 2014; 30: 103-109.
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