

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES



ANNUAL REPORT

2022/2023

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MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES

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List of abbreviations

AAC	Africa Academy of Science
ABC	Afya Bora Consortium
ACH	Association of Commonwealth Universities
AIDS	Acquired Immunodeficiency Syndrome
AfDB	African Development Bank
AGCT	Alliance for Global Clinical Training
AMR	Antimicrobial Resistance
AOR	Authorized Organization Representative
ASH	America Society of Hematology
ASM	America Society of microbiology
AWV	Adolescent Wellness Visit
BMLS	Bachelor of Medical Laboratory Sciences
BPharm	Bachelor of Pharmacy
BSc	Bachelor of Science
BScN	Bachelor of Science in Nursing
BSc EHS	Bachelor of Science Environmental Health Sciences
BSc RTT	Bachelor of Science in Radiation Therapy Technology
BTU	Bagamoyo Training Unit
CAG	Controller and Auditor General
CBE	College of Business Education
CDC	Centre for Disease Control
HD-CHPE	Haile Debas Centre for Health Professions Education
CEPD	Continuing Education and Professional Development
COTUL	Consortium of Tanzania University and Research Libraries
CIRCLE	Climate Impact Research Capacity and Leadership Enhancement

COSTECH	Tanzania Commission for Science and Technology
CSC	Commonwealth Scholarship Commission
CUGH	Consortium of Universities for Global Health
CUHAS	Catholic University of Health and Allied Sciences
CV	Curriculum Vitae
CVCPT	Committee of Vice Chancellors and Principals in Tanzania
DAAD	Deutscher Akademischer Austausch Dienst
DANIDA	Danish International Development Agency
DDR	Diploma in Diagnostic Radiography
DEHS	Diploma in Environmental Health Sciences
DFID	Department for International Development
DHRMA	Director of Human Resources Management and Administration
DMLS	Diploma in Medical Laboratory Sciences
DMRT	Dartmouth MUHAS Research Ethics Training Programme
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
DPS	Diploma in Pharmaceutical Science
DPI	Directorate of Planning and Investment
DOS	Dean of Students
DUE	Director of Undergraduate Education
DVC – A	Deputy Vice Chancellor – Academic

DVC – RC	Deputy Vice Chancellor Research and Consultancy
DVC- ARC	Deputy Vice Chancellor Academic, Research and Consultancy
DVC-PFA	Deputy Vice Chancellor Planning Finance Administration
EPS	Ethiopian Paediatrics Society
ESRF	Economic and Social Research Foundation
FAO	Food and Agricultural Organization
FYRSP	Five Year Rolling Strategic Plan
HIS	Health Information System
HCMIS	Human Capital Management Information System
HEI	Higher Education Institution
GePG	Government electronic Payment Gateway
GEMx	Global Education in Medicine Exchange
GHLO	Global Health Learning Opportunities
HESLB	Higher Education Students Loans Board
HKMU	Hubert Kairuki Memorial 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
IAHS	Institute of Allied Health Sciences
ICMR	Indian Council of Medical Research
ICU	Internationalization and Convocation Unit
IFMIS	Integrated Financial Management Information System
IRB	Institutional Review Board
ICOH	International Congress on Occupational Health
ICT	Information and Communication Technology

IHI	Institute for Health Improvement
IP	Internet Protocol
IOM	International Office for Immigration
IT	Information and Technologies
ITM	Institute of Traditional Medicine
IPSAS	International Public Sector Accounting Standard
IUCEA	Inter-University Council of East Africa
KCCo	Kilimanjaro Centre for Community Ophthalmology
KCMCo	Kilimanjaro Christian Medical College
KIU	Kampala International University
LSHTM	London School of Hygiene and Tropical Medicine
MCMS	Military College of Medical Sciences
MEST	Ministry of Education, Science and Technology
MD	Doctor of Medicine
MMC	Muhimbili Medical Centre
MMed	Master of Medicine
MPharm	Master of Pharmacy
MNH	Muhimbili National Hospital
MPL	Multipurpose Laboratory
MUHAS	Muhimbili University of Health and Allied Sciences
MUHASSO	Muhimbili University of Health and Allied Sciences Student Organization
MUIHC	Muhimbili Investment Holdings Company
MSc	Master of Science
MSc TDC	Master of Science in Tropical Diseases Control
MUST	Mbeya University of Science and Technology
MPH	Master of Public Health
MUCHS	Muhimbili University College of Health Sciences

MOI	Muhimbili Orthopedics Institute
MOU	Memorandum of Understanding
NGOs	Non-Governmental Organization
NHIF	National Health Insurance Fund
NIH	National Institutes of Health
NIMR	National Institute of Medical Research
NHC	National Housing Corporation
NCD	Non-Communicable Disease
OHCEA	One Health Central Eastern Africa
OMS	Oral and Maxillofacial Surgery
OSP	Office of Sponsored Project
OPCD	Orthodontics, Periodontics and Community Dentistry
OPRAS	Open Performance Review and Appraisal
PCCB	Prevention and Combating of Corruption Bureau
PCU	Project Coordinating Unit
PET	Pediatrics Epilepsy Training
PFA	Planning Finance and Administration
PhD	Doctor of Philosophy
PI	Principal Investigator
PMU	Procurement Management Unit
QA	Quality Assurance
QC	Quality Control
SACIDS	South African Centre of Infectious Disease
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
SUZA	State University of Zanzibar
SON	School of Nursing
SPARCO	Sickle pan African Research Consortium
TACAIDS	Tanzania Commission for AIDS
TMA	Tanzania Meteorological Agency
TAMSA	Tanzania Medical Students Association
TANTRADE	Tanzania Trade Development Authority
TBA	Tanzania Building Agency
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
TIB	Tanzania Investment Bank
TANROADS	Tanzania National Roads Agency
TANESCO	Tanzania Electric Supply Company Limited
TEKU	Teofilo Kisanji University
TUSA	Tanzania Universities Sport
TPSC	Tanzania Public Service College
UDOM	University of Dodoma Association
UDSM	University of Dar es Salaam
USA	United State of America
USAID	United States Agency for International Development

UK	United Kingdom
UNC	University of North Carolina
UNESCO	United Nations Educational, Scientific and Cultural Organization
UCSF	University of California at San Francisco
VAT	Value Added Tax
VC	Vice Chancellor
VPN	Virtual Private Network
WHO	World Health Organization

Table 1 : Members of the University Council during the year ended 30th June, 2023

No.	Name	Status/Title
1.	Dr. Harrison G. Mwakyembe	University Council Chairperson
2.	Prof. Appolinary A. R. Kamuhabwa	Member, Vice Chancellor
3.	Prof. Evaristo J. Liwa	Member, Representative Committee of Vice Chancellors and Principals of Tanzania (CVCPT)
4.	Dr. Fadhili Lyimo	Member, Appointee of the Minister of Health, Community Development Gender, Elderly and Children
5.	Dr. Rehema Horera	Member, Appointee of the Minister of Education, Science and Technology
6.	Dr. Amour Suleiman Mohammed	Appointee of the Revolutionary Government of Zanzibar
7.	Mr. Charles Lumaze	Member, Assistant Accountant General, Appointee of the Minister of Finance and Planning
8.	Prof. Mohamed Janabi	Member, Executive Director, Muhimbili National Hospital
10.	Dr. Enica Richard Massawe	Member, Appointee of the Senate
11.	Dr. Dennis Russa	Member, Representative of the Academic Staff Assembly
12.	Dr. Hawa Mbawala	Member, Representative of the Gender Dimension Committee.
13.	Mr. Charles Marwa	Member, Representative of Workers Union (THTU)
14.	Ms Vanessa Rutabana	Member, MUHASSO Representative
15.	Mr. Frank Prosper Msaki	Member, MUHASSO Representative

MUHAS Milestones

- 1963 The Dar es Salaam School of Medicine established under Ministry of Health
- 1968 The Dar es Salaam School of Medicine becomes the Faculty of Medicine of the University College of Dar es Salaam a constituent College of the University of East Africa.
- 1969 Faculty of Medicine launches an intensive course in biomedical sciences for diploma students. This was meant to convert the diplomas to the Bachelor of Medicine and Bachelor of Surgery (MB; ChB) degree which was being offered by the University of East Africa.
- 1970 The Faculty of Medicine becomes Faculty of Medicine of the University of Dar es Salaam.
- 1974 Faculty of Medicine launches a three-year Bachelor's degree in Pharmacy in the Division of Pharmaceutical Sciences.
- 1974 Traditional Medicine Research Unit is launched within Muhimbili.
- 1976 Faculty of Medicine and Muhimbili Hospital merge to form Muhimbili Medical Centre (MMC).
- 1979 A five-year degree course in Doctor of Dental Surgery starts in the Division of Dentistry.
- 1989 A Bachelor of Science in Nursing degree and Faculty of Nursing established.
- 1991 Faculty of Medicine upgraded into a constituent College of the University of Dar es Salaam and in July of 1991 the Muhimbili University College of Health Sciences becomes established.
- 1991 The Institute of Allied Health Sciences established from the former paramedical schools.
- 1997 Program Management Unit is created to address planning and development issues in the College.
- 2000 Muhimbili Medical Centre is disestablished to create two closely linked but autonomous public institutions known as Muhimbili University College of Health Sciences and Muhimbili National Hospital and the University moves from the Ministry of Health to the Ministry of Science Technology and Higher Education.
- 2001 A Bachelor of Science in Environmental Health starts in the Institute of Public Health predecessor of School of Public Health and Social Sciences.
- 2003 Faculties upgraded into Schools to make them more autonomous.
- 2003 Program Management Unit is upgraded into a Directorate of Planning and Development.
- 2004 University acquires 3800 acres of prime land on the outskirts of Dar es Salaam for future expansion.
- 2004 Two programmes, Bachelor of Science Nursing Management and Bachelor of Science in Midwifery, start in the School of Nursing.
- 2005 Establishment of Directorates of Planning and Development for Mloganzila and Muhimbili Campuses

- 2006 Department of Library services is upgraded to a Directorate.
- 2006 Establishment of the Unit of Continuing Education under the Directorate of Postgraduate Studies
- 2007 Established Directorate of Continuing Education and Professional Development
- 2007 The Muhimbili University College of Health Sciences upgraded to a full-fledged University
- 2008 Inauguration of University's Workers Council
- 2009 Establishment of Directorate of Undergraduate Education
- 2010 The Government of the United Republic of Tanzania signed a loan arrangement with the Government of South Korea for construction of the University Medical Centre at Mloganzila campus.
- 2011 The Government of the United Republic of Tanzania signed a loan agreement with the Government of South Korea for supply and installation of the equipment for the University Medical Centre at Mloganzila
- 2014 Construction of MUHAS Academic Medical Centre was initiated and was inaugurated by the fourth President of United Republic of Tanzania Hon Jakaya Mrisho Kikwete in 2015
- 2015 Centre of excellence in Cardiovascular Sciences was officially launched
- 2016 Construction of MUHAS Academic Medical Centre was completed and was handed over to MUHAS management.
- 2016 MUHAS University Council Approved Establishment of Muhimbili University Investment Holding Company
- 2017 The President of United Republic of Tanzania HE Dr. John Pombe Magufuli inaugurated operations of the MAMC
- 2018 The Management of MAMC was shifted to Muhimbili National Hospital (MNH)
- 2021 MUHAS reviewed its organogram to create a position of DVC RC, Principal College of Medicine
- 2021 School of Medicine was upgraded to College of Clinical medicine and three Schools was created namely' School of Clinical Medicine, School of Biomedical Sciences and School of Diagnostic Sciences
- 2021 On 18th August 2021 MUHAS signed project loan arrangement worth USD 45,500,000 for Higher Education for Economic Transformation
- 2022 Centre of Excellence for cardiovascular Sciences was officially inaugurated
- 2022 University acquired land in Kigoma Region for construction of new Campus
- 2023 MUHAS signs contract with Temeke, Mwananyamala and Amana referral hospital for clinical teaching and research

Institutional Leadership 1963 – to date

Year	Name of the Head of institution	Position Held
1963-1968	Dr. A. M. Rankin	1 st Dean, Faculty of Medicine
1968-1969	Prof. Gottlieb L. Monekosso	2 nd Dean, Faculty of Medicine
1969-1973	Prof. Aloysius M. Nhonoli	3 rd Dean, Faculty of Medicine
1973-1977	Prof. Willim J. Makene	4 th Dean, Faculty of Medicine
1977-1981	Prof. Aloysius M. Nhonoli	3 rd Dean, Faculty of Medicine
1981-1988	Prof. William J. Makene	4 th Dean, Faculty of Medicine
1988-1990	Prof. Gabriel M. P. Mwaluko	5 th Dean, Faculty of Medicine
1991-1994	Prof. Samuel Y. Maselle	1 st Principal, MUCHS
1994-2003	Prof. Jacob P. Mtabaji	2 nd Principal, MUCHS
2003-2007	Prof. Kisali J. Pallangyo	3 rd Principal, MUCHS
2007- 2012	Prof. Kisali J. Pallangyo	1 st Vice Chancellor MUHAS
2012 - 2018	Prof. Ephata E. Kaaya	2 nd Vice Chancellor MUHAS
2018 - 2023	Prof. Andrea B. Pembe	3 rd Vice Chancellor MUHAS
2023 to Date	Prof. Appolinary R. Kamuhabwa	4 th Vice Chancellor MUHAS

Current University Management



Prof. Appolinary A. R.
Kamuhabwa
Vice Chancellor



Prof. Erasto Mbugi
**Deputy Vice Chancellor –
Planning, Finance and
Administration**



Prof. Emmanuel Balandya
**Ag. Deputy Vice
Chancellor – Academic**



Prof. Bruno Sunguya
**Ag. Deputy Vice
Chancellor – Research
and Consultancy**

Statement by the Accounting Officer

Muhimbili University of Health and Allied Sciences (MUHAS) has grown from offering only one programme in 1963, which was Doctor of Medicine to an institution with 101 academic programmes offered in eight schools and two institutes. The increase in programmes went hand in hand with gradual increase in student enrolment for both undergraduate and postgraduate students to the current enrolment of 4,4557 students of whom 375 are diploma, 2,997 are undergraduates, and 1,185 are postgraduates. In the year 2022/2023 the University implemented activities as per the Five Year Rolling Strategic plan 2020/2021 to 2024/2025, aiming at improving the core functions of the university. During 2022/2023 a total of 1,609 students were admitted in various, diploma, undergraduate and postgraduate programmes. During the reporting period 1,475 students of which 562 (38.1%) are female were successfully awarded their diploma, undergraduate and postgraduate degrees during the 16th graduation ceremony.

During the 2022/2023 academic year, the University continued to build capacity of its academic staff and non-academic staff to ensure quality training and services provided. Until the 30th June 2023, 40 academic staff were on PhD studies, 28 academic staff on their Masters training, and 6 academic staff on Super Specialization; while 6 administrative staff and technical staff were on masters training, 8 administrative and technical staff were on degree training for bachelor degrees.

During the academic year 2022/2023, there 130 active sponsored research projects at various implementation stages. Among them, 34 were new research projects initiated during the reporting period. Alongside research implementation, the university maintained its leading edge in research publications in the country. During the reporting period a total of 632 publications were produced which included 285 journal articles, 451 thesis/dissertations and 2 books. This achievement was a result of the University's efforts to promote research and innovation as one of its core functions.

During the financial year 2022/2023, the Government through the World Bank under the Higher Education for Economic Transformation (HEET) Project has secured a soft loan amounting to 45.5 USD. The HEET project will expand and improve the quality of training programmes delivery at the Mloganzila and Kigoma campuses. HEET project financing will be used for training of faculty, review and development of new curricula and construction of academic and support facilities at Mloganzila and Kigoma Campuses.

Further, the University continued to undertake its mandated activities using the resources available. During the reporting period, funds received for Other Charges (OC) for the year was **TZS 1,159,746,498.56** (previous year **1,212,711,013.33**) which was about **88.5%** of the budget for the period. The budget for the year was **TZS 1,311,039,000**. There was a shortfall of **TZS 151,292,501.44** for the year.

for the Government counter funding for Capital Development (CD) amounting to **TZS 750,000,000.00** were not disbursed because ongoing construction activities at the Centre of Excellence for Cardiovascular Sciences (CoECVS) at Mloganzila Campus were financed through the African Development Bank. CD financed from the University's own sources for the year was **TZS**

3,630,146,438.20 (previous year **TZS 2,439,566,530.55**) against the budget the budget of **TZS 3,727,579,664**. This is 97.4% of the budget.

Total collection from internal sources amounted to **TZS 17,17,473,646,414.69** (previous year **13,851,098,035.98**) which is **120.86%** against the budgeted amount (**TZS 15,462,314,529.36**) for the year. Collection was surpassed due to receipt of more funds qualifying for institutional overhead and payment of tuition and other fees by private and sponsored students. Favorable exchange rate between US dollar and our local currency also had an impact especially on tuition fees from foreign student and institutional overhead charge on funded projects denominated in USD.

On behalf of MUHAS management, I wish to thank the Government of the Republic of Tanzania for continuing to support MUHAS. The Ministry of Education, Science and Technology is acknowledged for sponsorship of students and provision of financial resources to support MUHAS. I also recognize the support of the Ministry of Health through sponsorship of postgraduate students at MUHAS.

MUHAS collaborators including development partners are acknowledge for the institutional support in training, research, consultancy services and health care delivery. I also thank the Council of MUHAS for guiding the management in the implementation of the core functions of MUHAS. Through the guidance and support of the Council, MUHAS has been recognized nationally and globally including the recent academic ranking by the Times Higher Education in June 2023 where MUHAS was ranked number 3 among the best universities in Sub-Saharan Africa. All these achievements would not have been possible without dedication and hard work from MUHAS staff and students. To you all I say thank you very much for continuing to make MUHAS a better higher learning institution nationally, regionally and globally.

Prof. Appolinary A. R. Kamuhabwa
Vice Chancellor

1.0 Introduction

This is the thirteenth MUHAS Annual Report, which describes progress in the implementation of the annual planned activities as described in the MUHAS Five Years Rolling Strategic Plan for the year 2020/2021 to 2024/2025. The report shows progress in academic programmes, students' enrolment, student outputs, examinations and human resource development. The report also shows achievements made by schools, academic institutes and directorates. Research programmes, consultancy and public service achievements made by the various units at MUHAS are also reported. In addition, during the year 2022/2023, the University made progress towards achievement of its vision and mission through implementation of various development projects, expansion of student intake, improvement of the quality of research and teaching, and improved stakeholder's engagement.

In order to strengthen academic programmes and infrastructure development, during the reporting period, the university initiated various initiatives to boost investment and self-generated income.

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 ten Directorates as follows:

2.4.1 College

- (i) College of Medicine

2.4.2 Schools

- (i) School of Dentistry
- (ii) School of Pharmacy
- (iii) School of Nursing
- (iv) School of Public Health and Social Sciences
- (v) School of Clinical Medicine
- (vi) School of Biomedical Science
- (vii) School of Diagnostic Science

2.4.2 Institutes

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

2.4.3 Directorates

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

3.0 Teaching and Learning

Teaching is one of the core functions of the University. MUHAS offers innovative, relevant and market – driven academic programmes at diploma, undergraduate and postgraduate levels with inbuilt quality control systems. The University also provides an environment and policy framework that allow students to have attractive and healthier teaching and learning environment. This is achieved

through improving services in laboratories, library and rehabilitation of classrooms, Hostels and the surrounding environment.

3.1 Academic Programmes

MUHAS has a wide range of academic programmes and the best academic staff profiles in Health and Allied Sciences in Tanzania. The University gives high priority to quality programmes' development, delivery and students outcomes. Currently the University offers 4 Diploma programmes, 13 Undergraduate programmes and 84 Postgraduate programmes, which are offered in the five schools and two institutes.

3.2 Students Admission during from 2017/2018 to 2022/2023

3.2.1 Diploma Programmes

During the reporting period 158 new students were admitted in the various MUHAS diploma programmes. Of the total, 64 (40.5%) were females and 94 (59.5%) were males. There was a decrease of students admitted in 2022/2023 (158) compared to 183 students admitted in the previous year. Reason for the decrease is that, the three programmes i.e. Diploma in Nursing, Diploma in Pharmaceutical Sciences and Diploma in Medical Laboratory Sciences are being managed by the Ministry of Health. During the reporting period, MUHAS established evening programmes which created more slots for admission. Figure 1 shows admission trends for diploma students from 2017/2018 to 2022/2023.

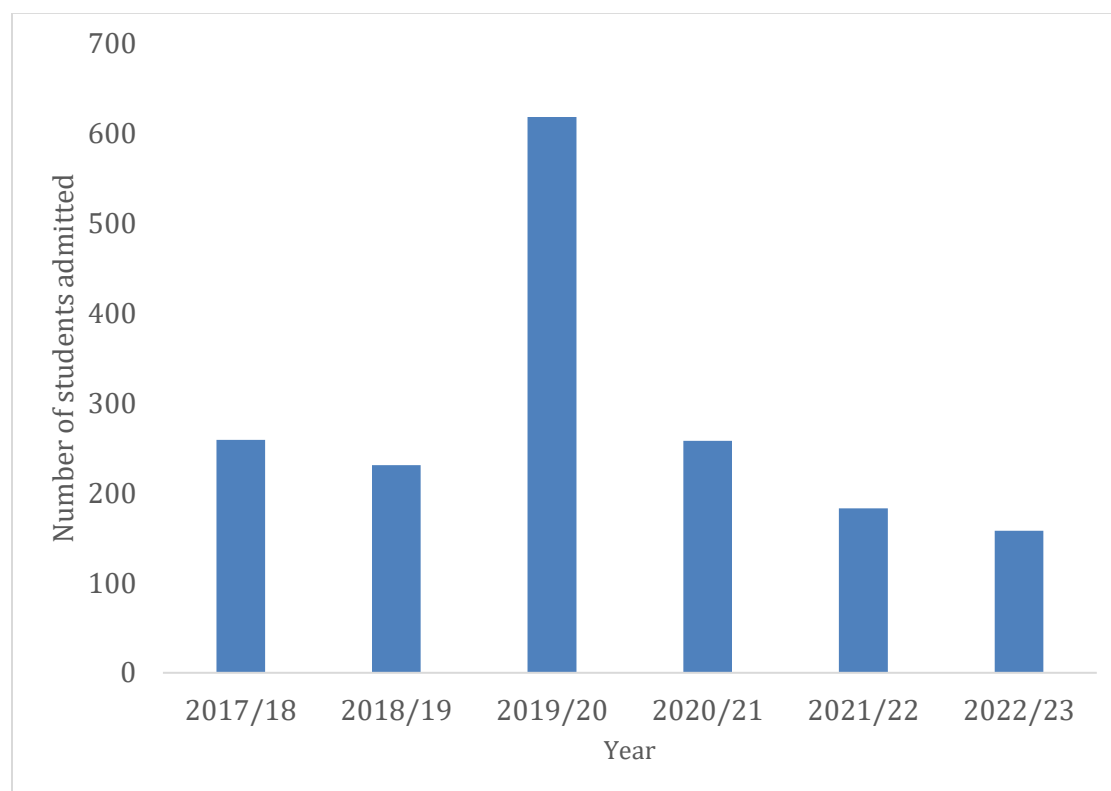


Figure 1: Diploma Students Admission – 2017/18 to 2022/2023

3.2.1.2 Undergraduate degree programmes

Figure 2 shows admission of undergraduate students during the academic year 2022/2023. A total of 891 students were admitted into all undergraduate degree programmes, which is 43 (5.1%) students increase compared to 848 students admitted during the year 2021/2022. Of the total, 298 (33.5%) were females and 593 (66.5%) were males. The female student enrollment in undergraduate programmes is still short of the target of 40% aimed in the MUHAS Medium Term Strategic Plan.

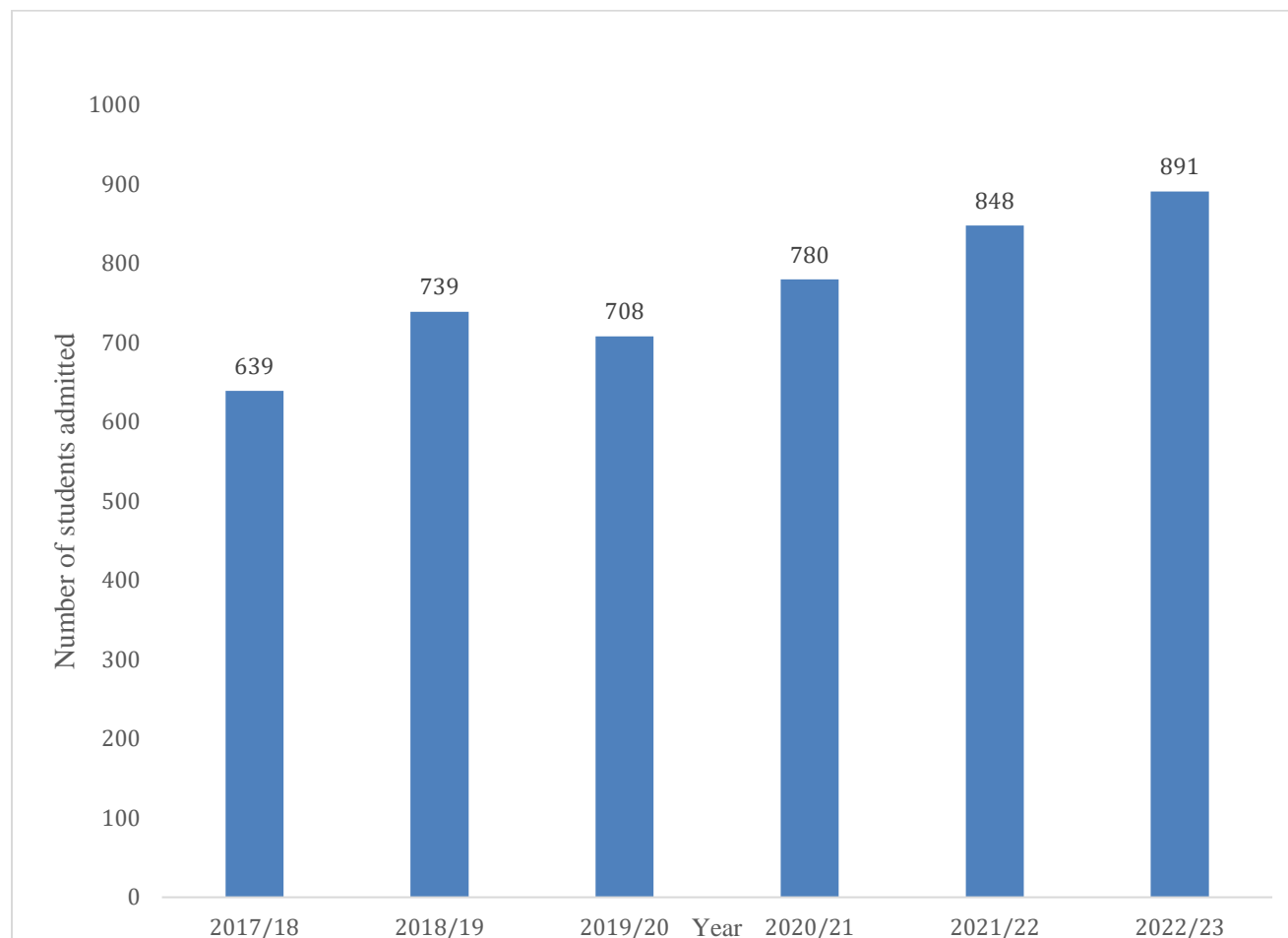


Figure 2: Undergraduate Students Admission – 2017/18 to 2022/23

3.2.1.3 Postgraduate Programmes

During the reporting period, 560 postgraduate students were selected in various postgraduate programmes. Of the total, 294 (52.5%) were males and 266(47.5%) were females. Notably, for the past four years there has been a remarkable increase in number of postgraduate students admitted into various postgraduate programmes. For example, in 2017/2018, 415 postgraduate students were admitted This number has continued to increase until it reached 565 in 2020/2021. In the, year 2021/2022 there was a slight decrease of 81 students. However, in 2022/2023 postgraduate admission increased to 560 (Figure 3).

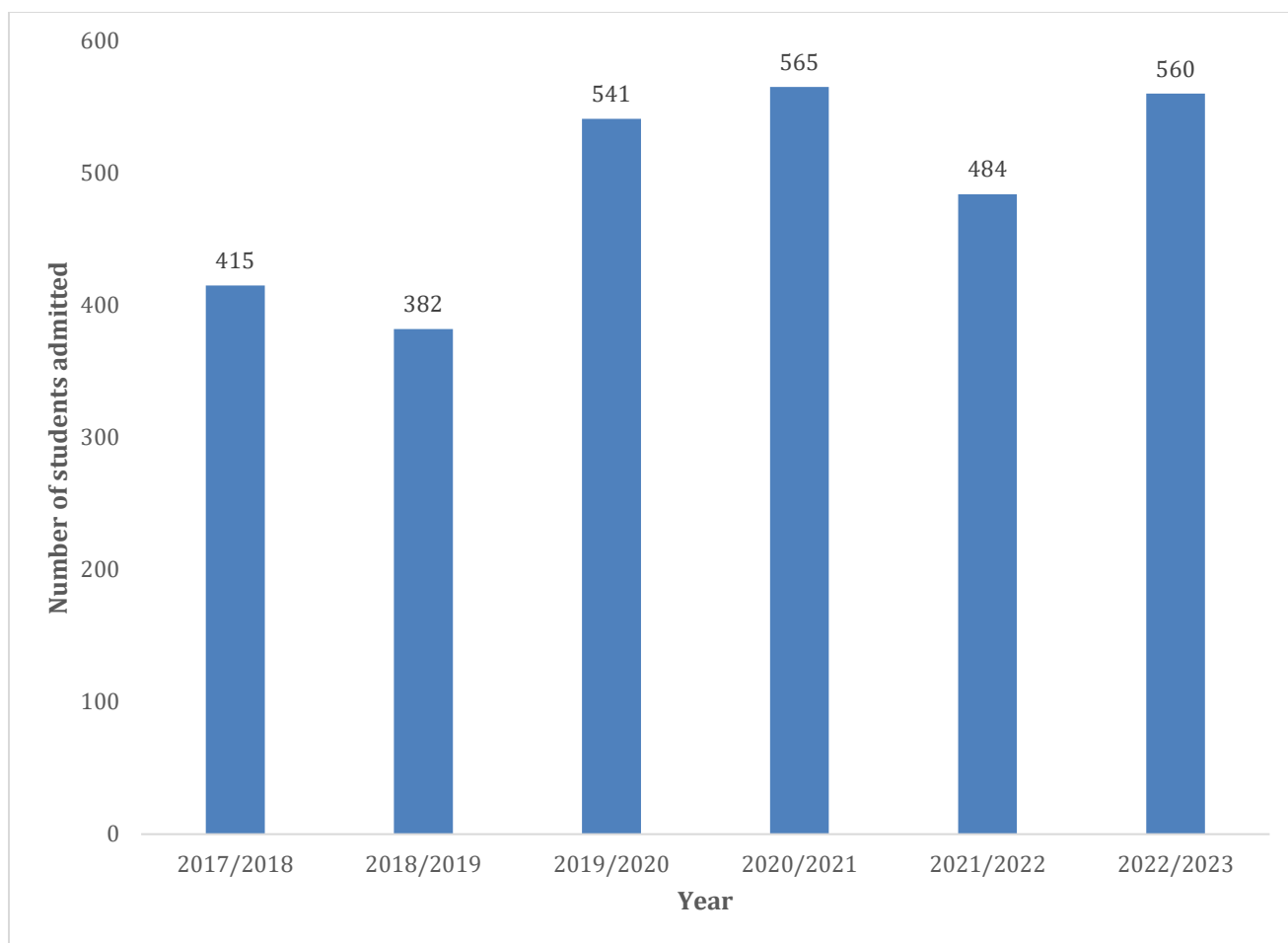


Figure 3: Postgraduate Students Admission – 2017/2018 to 2022/2023

3.3 Students Enrollment during from the academic years 2017/2018 to 2021/2022

3.3.1 Diploma Students

During the year 2022/2023 the Institute of Allied Sciences enrolled a total number of 375 students into diploma programmes, including 218 (58.1%) male and 157(48.9%) female students. Compared to 667 students enrolled in the year 2021/2022, the number of student enrolment decreased by 292 (43.8%) students (**Figure 4**). The Decrease in enrollment was due to the change of the management of the some of the programmes from MUHAS to the Ministry of Health.

3.3.2 Undergraduate Students

The number of students enrolled during 2022/2022 into all undergraduate programmes was 2,997. This marked an increase of 99 (3.4%) students compared to 2,898 students enrolled in 2021/2022 (**Figure 4**). During the reporting period, 772 (25.8%) of the total students enrolled in undergraduate programmes were females and 2,225 (74.2%) were males.

3.3.3 Postgraduate Students

The number of postgraduate students enrolled at MUHAS has been consistently increasing from 2017/2018 to 2021/2022. However, during the reporting period (2022/2023) there was a slight decrease by 2.1% compared to 2021/2022 enrollment (1,210). Among students enrolled in Master programmes, 532 (44.9%) were females. **(Figure 4).**

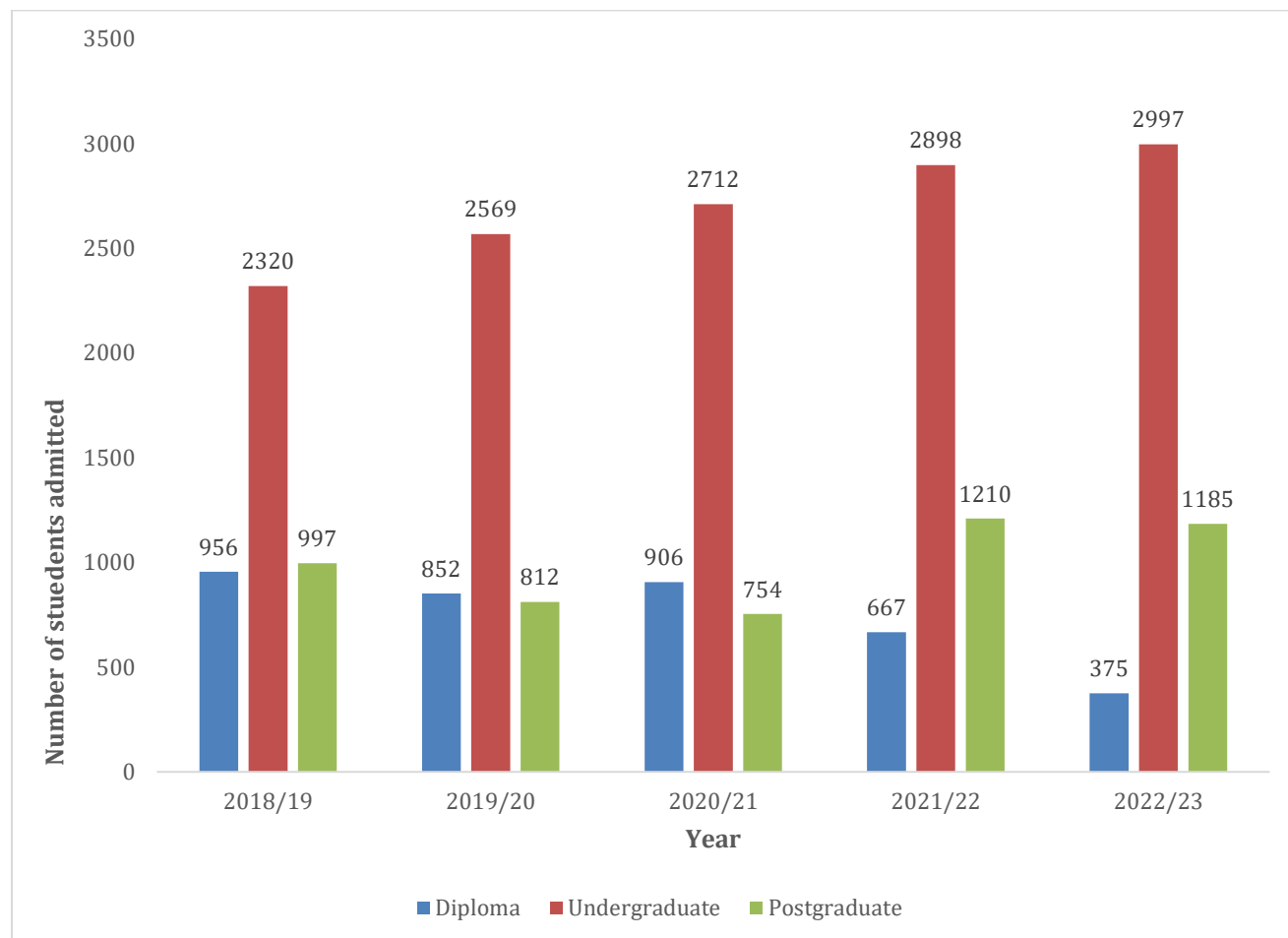


Figure 4: Diploma, Undergraduate and Postgraduate Students Enrolment - 2018/19 to 2022/23

3.4 Performance in Examinations during 2022/2023

3.4.1 Diploma Programmes

A total of 498 students sat for examination during the reporting period and 406 (81.5%) passed at first sitting. A total of 92 (18.5%) failed their examination during the first sitting, 12(2.4%) absconded from Studies, 9(1.8%) were discontinued on academic ground, and 2 (0.4%) frozen studies. There was no student with incomplete or withheld examination results during the reporting period (Figure 5).

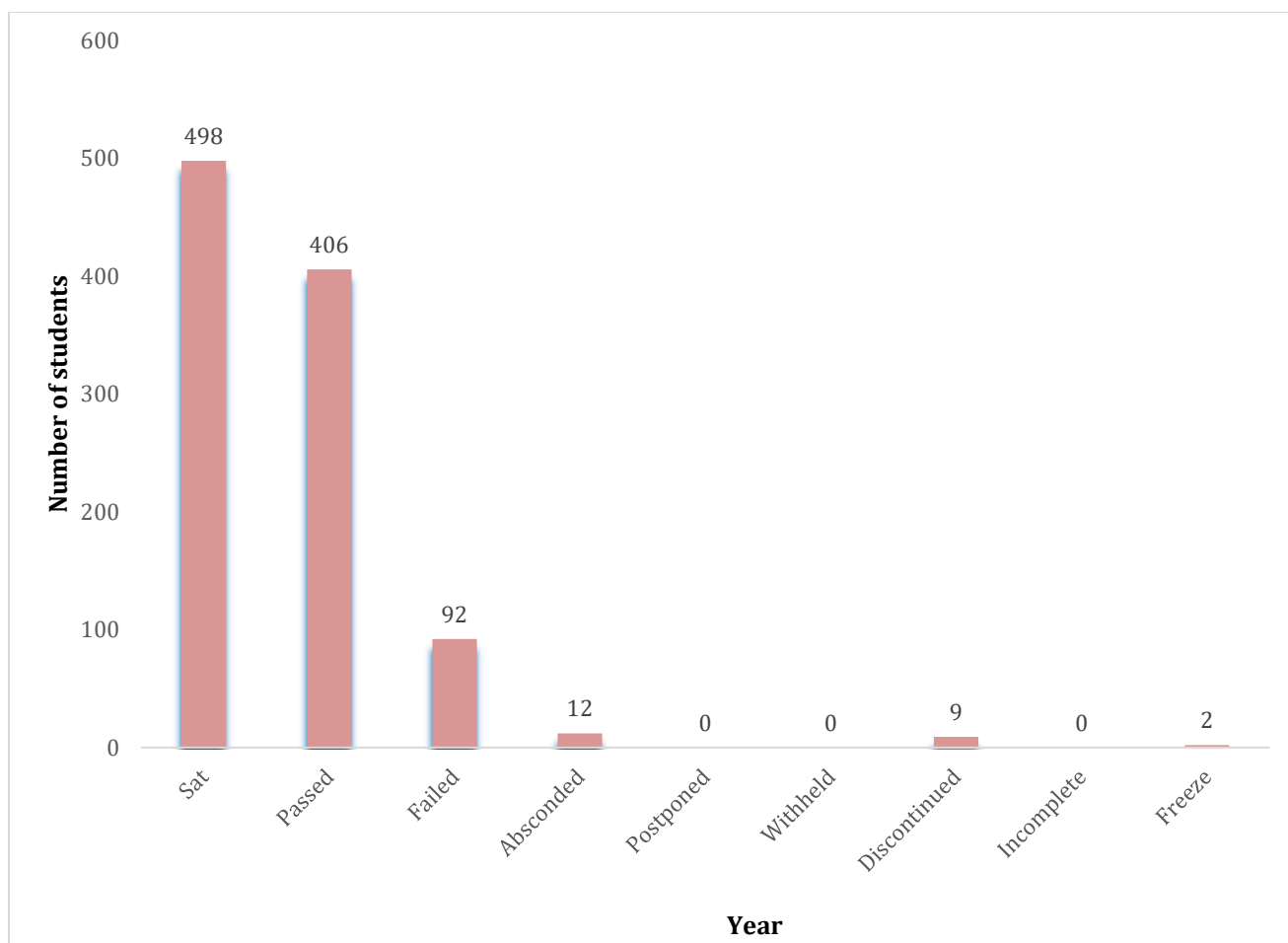


Figure 5: Performance of Diploma students during the 2022/23 Examinations

3.4.2 Undergraduate Programmes

During the reporting period, a total of 2,754 Undergraduate students sat for university examinations and 2,197 (79.8%) passed their examinations. A total of 363 (13.2%) students failed examinations, 136 (5%) absconded studies, 2 (0.07%) postponed studies and 2 (0.07%) had incomplete results. Fifty-two (1.9%) students were discontinued from studies (Figure 6).

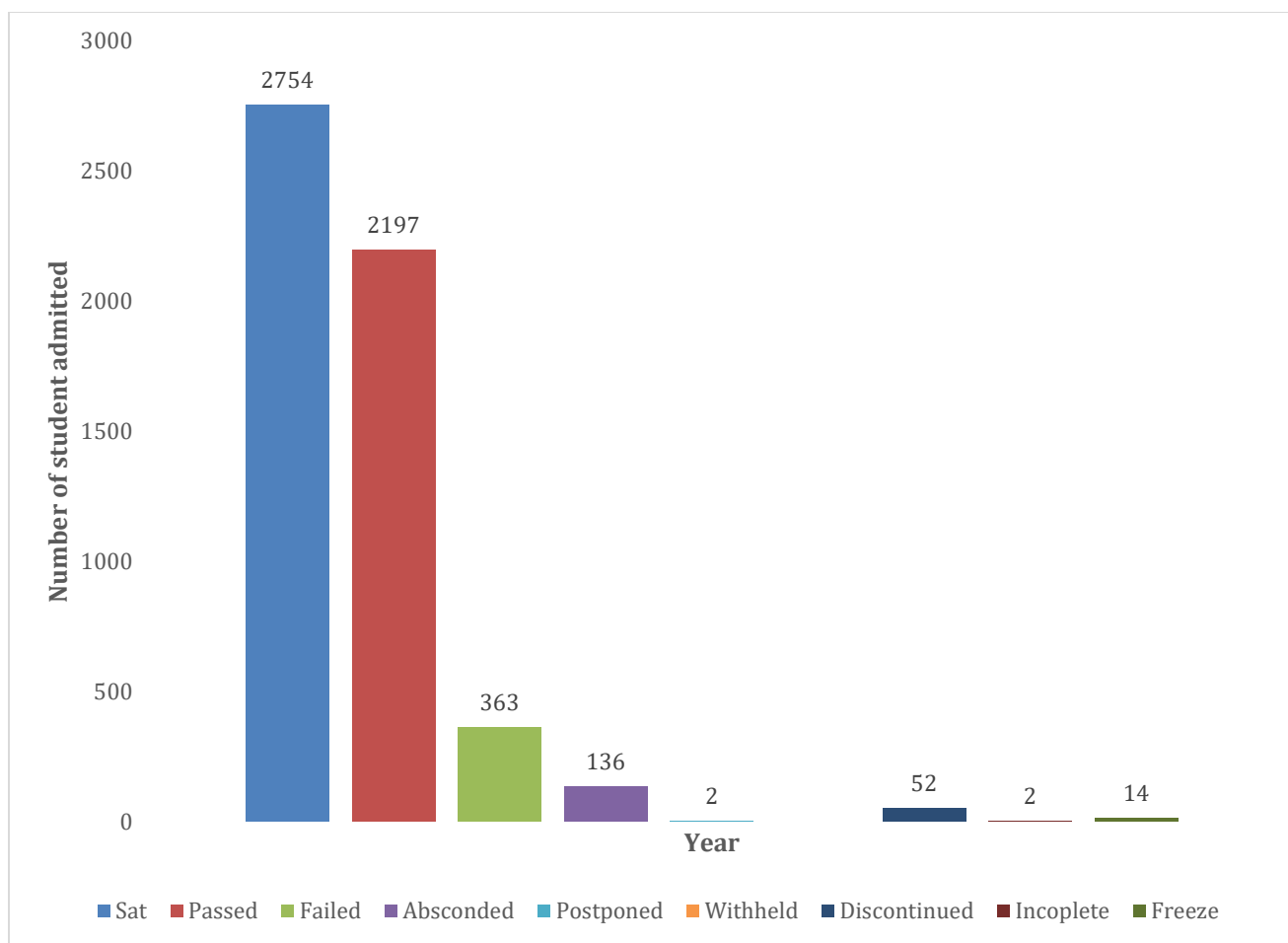


Figure 6: Performance of undergraduates' students during the 2022/2023 Examinations

3.4.3 Postgraduate Programmes

During the reporting period, a total of 1,328 postgraduate students sat for university examinations and 852 (64.2%) passed. Among 224 students who failed during their examinations, 224 (16.9%) were referred to do supplementary examinations. Fifty-six (4.2%) students had absconded studies, 113(8.5%) had incomplete results, and 21 (1.6%) had frozen studies. Sixty-four (4.8%) students were discontinued from studies (Figure 7).

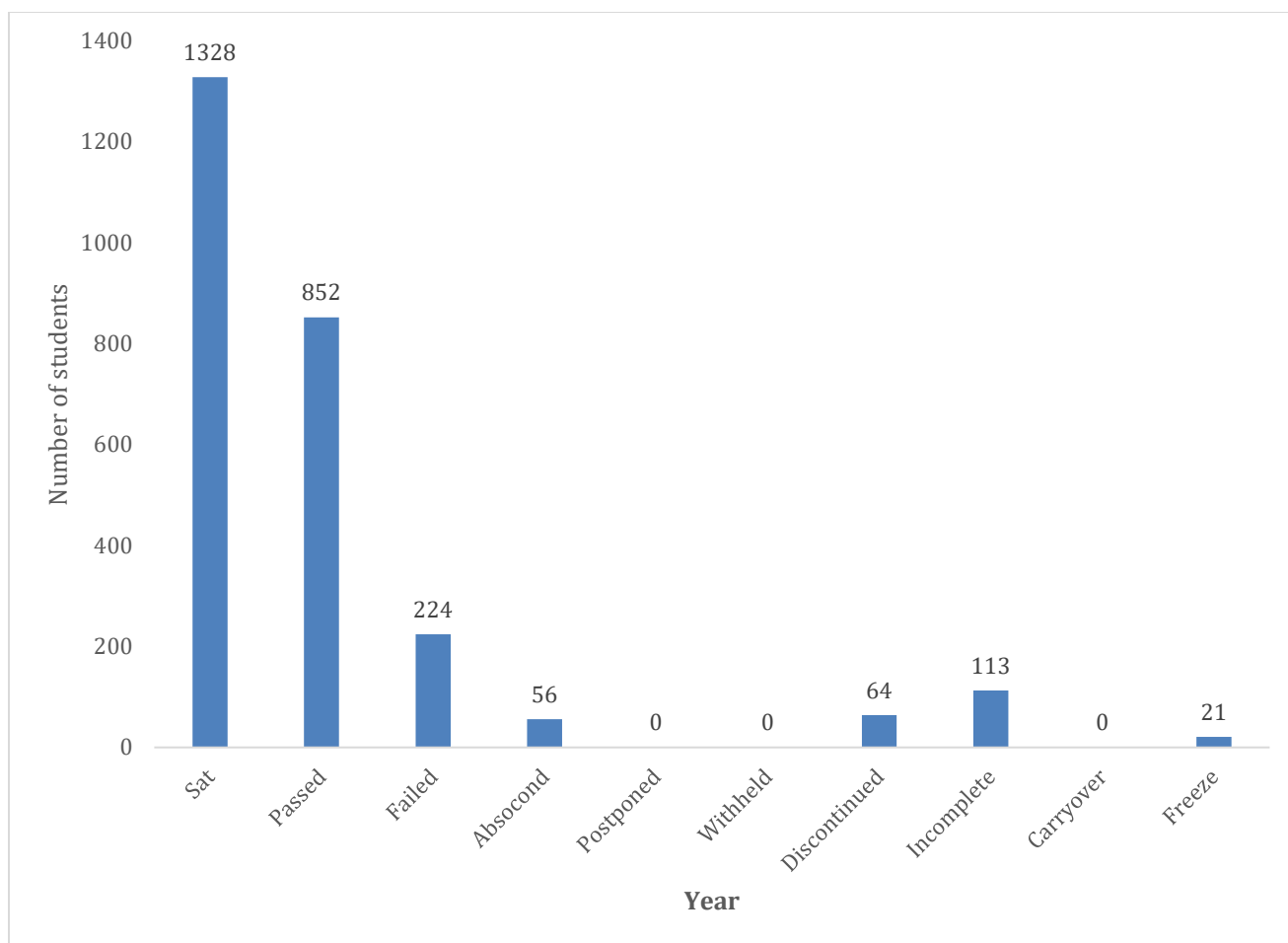


Figure 7: Performance of Postgraduate students during the 2022/2023 examinations

3.5 Students Output

3.5.1 Diploma Programmes

During the period under review, 395 diploma students completed their studies, 165 (41.8%) of them were females. During the reporting period, the number of qualifying candidates increased by 194 students compared to the year 2021/2022. Figure 8 shows diploma, undergraduate and postgraduate outputs from 2017/2018 to 2022/23, while Figure 9 shows Diploma, Undergraduate and Postgraduate Graduates by Sex (2022 Graduation Ceremony).

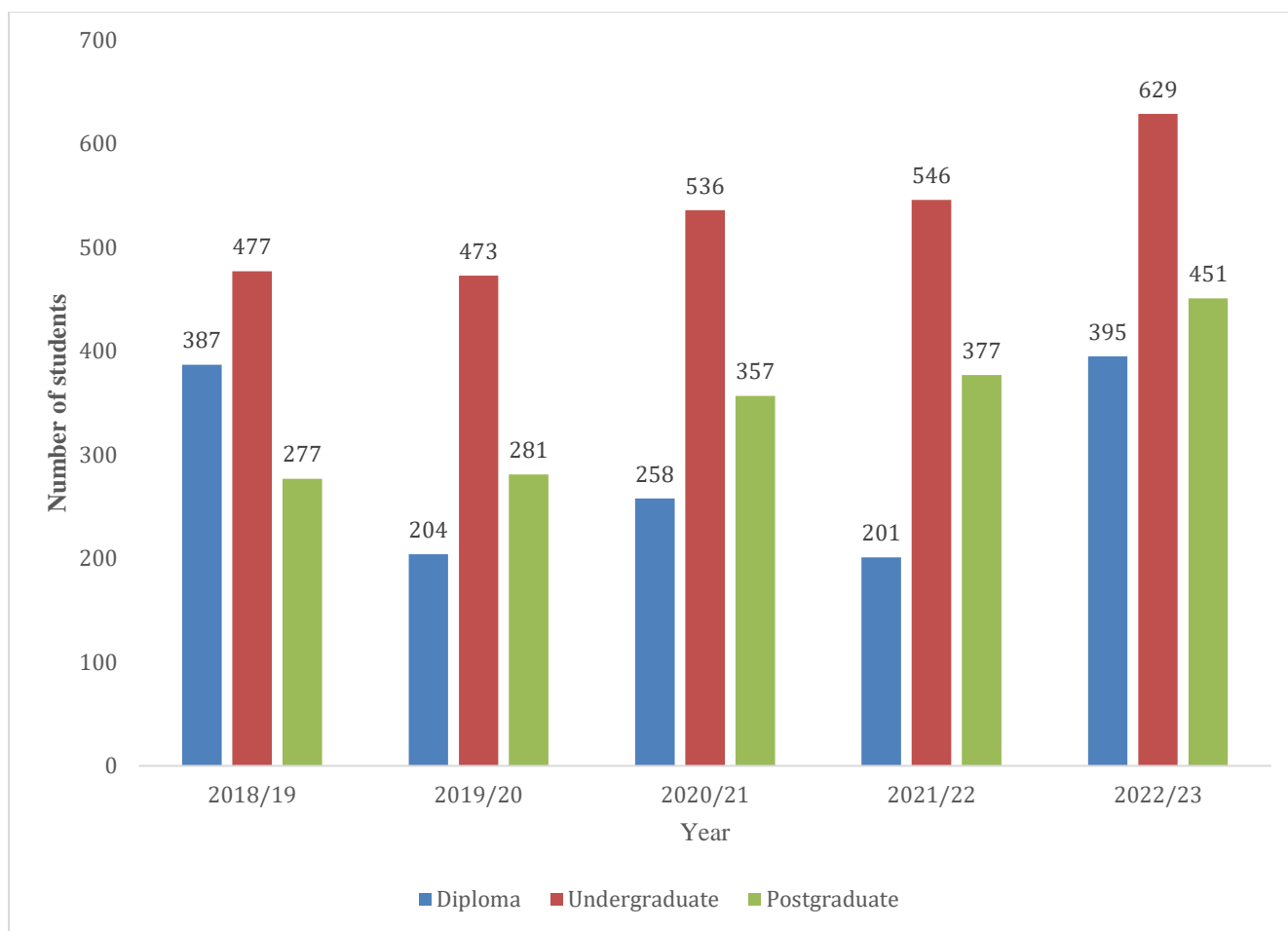


Figure 8: Diploma, Undergraduate and Postgraduate Graduates - 2018/2019 to 2022/2023

3.5.2 Undergraduate Degree Programmes

The number of graduates during the reporting period (2022/23) were 629 and the number of qualifying candidates increased by 83 (13.2%) compared to 546 students who graduated in the year 2021/2022. Of the total undergraduate students who graduated during the reporting period, 207 (32.9%) were females.

3.5.3 Postgraduate Programmes

During the reporting period, a total of 451 students graduated with postgraduate degrees, indicating an increase in number of qualifying candidates by 74 (19.6%) compared to 377 students who graduated in 2021/2022. Out of the total postgraduate graduates, 190 (42.1 %) were females.

3.6 Graduation Ceremony December, 2022

During the reporting period, the University marked its 16th graduation ceremony on 3th, December 2022 during which a total of 1,475 graduates were awarded degrees and diplomas as follows:- three hundred

ninety-five (395) Diplomas and Advance Diploma and six hundred and twenty-nine (629) first degrees. Four hundred and fifty-one (451) were awarded Master's degree.

Diploma and Advance Diploma Students were (395), Diploma in Medical Laboratory Sciences (91), Diploma in Environmental Health Sciences (71), Diploma in Diagnostic Radiography (66), Diploma in Orthopedic Technology (11), Diploma in Pharmaceutical Sciences (55), Diploma in Nursing (88) and Advanced Diploma in Dermatovenereology (13).

First degree students were (629), including Doctor of Medicine (182), BSc RTT (31), BMLS (153), BPharm (69), DDS (42), Bachelor of Science in Nursing (62) and BSc Environmental Health Sciences (90).

With regards to postgraduate students, a total of 451 were awarded degrees as follows:- Doctor of Philosophy (7), Master of Science Super-Specialties (30), Master of Medicine (196), Master of Dentistry (8), Master of Pharmacy (6), Master of Science (3), Master of Public Health (44), Master of Bioethics (7), MSc Industrial Pharmacy (08), Master of Science (67), Master of Nursing (48), Master of Science in Traditional Medicine Development (1), Master of Science by Research and Publications (5).

During the reporting period, the number of female graduates were 441 (39.2%) compared to the previous year whereby 430 (37%) female students graduated. The total number of students who completed their studies was 1,124 (Figure 9), which was an increase by 74 (70%) students compared to 2021/2022 (1,050 graduands).

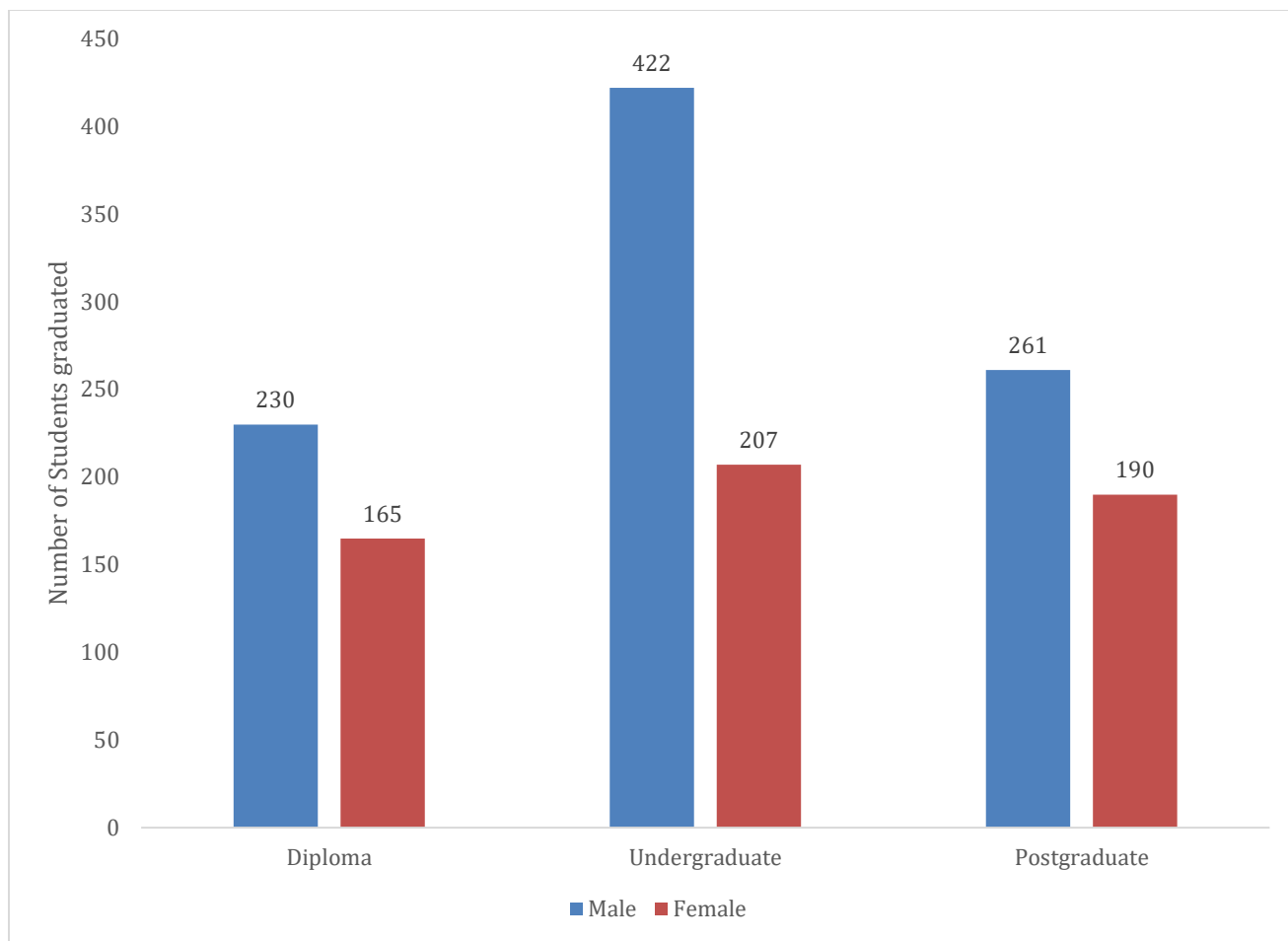


Figure 9: Number of Graduands for Diploma, Undergraduate and Postgraduate Students by Sex for the Year 2022 at MUHAS.

4.0 Reports from College of Medicine, Schools, Directorates and Institutes

4.1 College of Medicine



Dr. Enica Richard
Acting Principal,
College of Medicine

This is the annual report of activities and events in the College of Medicine at MUHAS, from 1st July, 2022 to 30th June, 2023. The report summarizes activities related to student's registration for undergraduate and postgraduate programmes, provides an overview of teaching, research, consultancy and public services and highlights on governance matters in the College during the reporting period. During the reporting period the School of Medicine was transformed to a College of Medicine under which, three Schools are housed including School of Diagnostic Medicine, School of Clinical Medicine and School of Biomedical Sciences.

4.1.1 Vision, Mission, and Functions of the College

Vision

The College of Medicine excelling in quality training of health professionals, research and public services with learning and working environment that is conducive.

Mission

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

4.1.2 Functions of the College

The functions of the College and its activities are guided by core components of its mission and include:

- i. To be directly engaged in the creation, transmission, and evaluation of knowledge in medical sciences, laboratory, biomedical engineering and radiological treatment technologies in the pursuit of excellence in academic scholarship and intellectual inquiry through teaching, research and provision of advisory and public medical related services.
- ii. To provide a place of learning, education and research in medical sciences, laboratory, biomedical engineering, and radiological treatment technologies and through this provide quality services commensurate with a good medical school.
- iii. To provide the labor market in Tanzania and Eastern Africa, with highly competent medical professionals, biomedical engineers, and technologists able to contribute effectively to prevention, treatment and management of health-related problems in the society. This is to

- be achieved through the prime principle of integrating research, teaching, and advisory services in the immediate subject areas.
- iv. To contribute to the intellectual and professional life of Tanzania and Eastern Africa and to act as a focal point for continuing professional development, research and services that are of interest to the people of Tanzania.
 - v. In terms of output the functions of the College are: -
 - a) To provide undergraduate education in Medicine, Medical Laboratory Sciences, Biomedical Engineering and Radiotherapy technology for degree and non-degree programmes.
 - b) To provide post-graduate education in different specialties and super specialties of medicine
 - c) Teach of students/trainees from other Schools/Institutes at MUHAS as well as from outside the University.
 - d) To prepare and publish medical educational materials in various fields of medical sciences.
 - e) To conduct medical research and disseminate the findings.
 - f) To carry out scientific educational, professional and technical consultancy services on behalf of third-party clients under contract.
 - vi. To engage in cost containment and income generating ventures for sustainability.

4.1.3 Student Selection and Registration

Undergraduate programmes

Selection of suitable candidates who applied to join the various degree programmes in the School of Medicine for the 2022/2023 academic year has just been concluded and the names for the selected candidates have been published in the MUHAS website. A total of **430** candidates were selected for the 5 undergraduate programmes. The total number of selected candidates represents a slight decrease (2.55%) compared to the 441 candidates selected for 2021/2022 academic year.

Among the selected candidates, a total of 235 belong to Doctor of Medicine (MD) degree program whereby it was 230 number as for 2021/2022 academic year. 25 belong to Bachelor of Biomedical Engineering (BME), 25 belong to Bachelor of Science in Diagnostic and Therapeutic Radiography (BSc RAD), 30 belongs to Bachelor of Science in Physiotherapy 108 belong to Bachelor of Medical

Laboratory Sciences. The enrolment in the SoM programmes was limited by the program capacity as shown in Table 2.

Table 2 Number of selected and Registered Candidates to join Undergraduate Programmes in the College of Medicine for the Year 2022/2023

Programme	Selected	Registered		
		Gender (M/F)		All
		Male (%)	Female (%)	
Doctor of Medicine	235	152(64.7%)	83(32.8%)	235(56.1%)
Bachelor of Medical Laboratory Sciences General (BMLS)	103	77 (74.7)	26(25.2%)	103(24.6%)
Bachelor of Science in Diagnostic and Therapeutic Radiography (BSc RAD),	31	25 (80.6%)	6 (19.4%)	31(7.4%)
Bachelor of Biomedical Engineering (BME)	24	18(75%)	6 (25%)	24 (5.7%)
Bachelor of Physiotherapy	26	18 (69.2%)	8 (30.8%)	26 (6.2%)
Total Candidate Selected	419	290(69.2%)	129(30.5%)	419 (100%)

Of all the selected 430 candidates for undergraduate programmes, 419 (97.4%) were actually registered (Table 1).

Selection of applicants for Postgraduate degrees

In total 406 applicants were selected to join postgraduate programmes (MMed, MSc and MScSS) in the College of Medicine.

Table 3: Selected Candidates for MMed programmes in College of Medicine for the Year 2022/2023 academic year

Programme	Number of Selected Candidates	Gender (M/F)	
		Male (%)	Female (%)
MMed Obstetrics and Gynaecology	26	15	11
MMed Internal Medicine	33	22	11
MMed Surgery	27	22	05
MMed Radiology	25	15	10
MMed Emergency Medicine	25	16	09
MMed Paediatrics and Child Health	26	7	19
MMed Ophthalmology	17	11	06

MMed Orthopaedics and Traumatology	25	20	05
MMed Clinical Oncology	19	12	07
MMed Otorhinolaryngology	25	14	11
MMed Anesthesiology	16	09	07
MMed Urology	17	16	01
MMed Anatomical Pathology	11	08	03
MMed Haematology & Blood Transfusion	11	03	08
MMed Psychiatry and Mental health	13	06	07
MMed Microbiology & Immunology	03	01	02
Total	319	197 (61.8%)	122 (38.2%)

Table 4: Selected Candidates for MSc programmes in the College of Medicine for the Year 2022/23 academic year

Programme	Selected Candidates	Gender (M/F)	
		Male	Female
MSc Microbiology and Immunology	08	05	03
MSc Neuroradiology	02	00	02
MSc Clinical Psychology	08	00	08
MSc SS Nephrology	04	02	02
MSc SS Medical Gastroenterology & Herpetology	02	02	00
MSc Physiology	03	02	01
MSc Biochemistry	05	04	01
MSc Clinical Pharmacology	02	02	00
MSc Critical care Medicine	02	00	02
MSc Anatomy	03	02	01
MSc SS Surgical Gastroenterology & Herpetology	05	04	01

MSc SS Neurology	02	01	01
MSc Histotechnology	01	00	01
MSc SS Clinical Neonatology	02	01	01
MSc SS Paediatric Haematology Oncology	10	02	08
MSc Cardiovascular Perfusion	02	02	00
MSc SS Cardiology	10	05	05
MSc SS Cardiothoracic Surgery	03	03	00
MSc Interventional Radiology	04	02	02
MSc SS Haematology and Blood Transfusion	01	00	01
MSc SS Paediatric Surgery	02	00	01
MSc SS Respiratory Medicine	01	01	02
MSc SS Urology	03	03	00
MSc SS Plastic and Reconstructive Surgery			00
Total	87	44	43

4.1.4 Teaching activities

All new Undergraduate and Postgraduate students were exposed to orientation week and the Undergraduates participated in the white coat ceremony held on 27th October, 2022. The white coat ceremony is a conversion from being a “*lay person*” to beginning the first steps to becoming a “*Health care Professional*”. Honoring the white coat as professionals is to emphasize a transition in the history of health care from a less to a more scientific approach to practice, associated with better outcomes for patients treated. Training activities and examinations were conducted as planned.

4.1.5 Assessment and Graduation

During 2022/2023 academic year, 384 undergraduate students graduated their first degrees including MD (n=201), BMLS (n=152), and BScRTT (n=31).

4.1.6 New Programmes

During the reporting period three new postgraduate programmes and two undergraduate programmes from the college were accredited for 2022/2023 academic year. The new programmes accredited were:

1. Bachelor of Science in Audiology, Speech and language Pathology
2. Bachelor of Science in Occupational Therapy
3. Master of Science SS in Rhinology

4. Master of Science in Women Imaging
5. Clinical Neonatology (MSc. SS Neonatology)

4.1.7. International Elective Students

For this reporting year, the college received a total of eighty-six (86) international students from various Universities for clinical elective study placement in various departments. This is more than the 40 and 38 students who reported in 2020/2021 and 2021/2022 respectively.

4.1.8. Visits

During this period there were Forty-one (41) visitors at the Campus College of Medicine visitors at the College of Medicine from various areas

4.1.9 Research and Consultancy

i) Research Projects

During the reporting period over 299 collaborative research projects were conducted by members of academic staff and students. Several other studies were conducted by undergraduate and postgraduate students under supervision.

ii) Publications by academic members of staff and students

By the end of June 2023, a total of 299 collaborative research projects were implemented, out of these, 222 were ongoing and 77 were new. In addition, members of academic staff were engaged in over 60 specific research studies and supervising more than 400 student research projects. The period from 1st July 2022 to 30th June 2023 recorded a total of 199 publications (Appendix 1) in peer reviewed journals mostly in International Journals. The number of publications (199) for the 2022/2023 academic year represents an increase in publication by 27 from the 172 publications that were reported for 2021/2022 academic year. The reported publications were searched from PubMed, Google Scholar, HINARI and other databases and appraised by the responsible departments/authors provided one of the authors who is a listed College of Medicine academic staff member and is identified by the publishing Journal as MUHAS affiliate.

iii) Consultancy

At our sister clinical service institutions, MNH, MAMC, MOI, ORCI, JKCI and district hospitals in Dar es Salaam, staff continued to provide in-patients and out patients services. During the reporting period staff in the College of Medicine continued to provide consultancy services and collaborations in various capacities and institutions, but predominantly in support of the MOHCDGEC, WHO and Research and workshops in-country.

4.1.10 Governance Matters

i) New Staff recruited

During the reporting period MUHAS received from the President's Office – Public Service Management & Good Governance the permit to employ Tutorial Assistants (TAs). The College of Medicine received Seventy-Nine (79) new academic member staff.

ii) Staff appointments

During this reporting period there were four appointments. Dr. Enica Richard appointed to be Ag. Principal College of Medicine, Dr. Sabina Mugusi Ag. Dean School of Biomedical Sciences, Prof. Agrico la Joachim Ag. Dean School of Diagnostic Medicine and Dr. Peter Wangwe Ag. Dean School of Clinical Medicine.

iii) Honorary lecturer appointments

During this reporting period twenty-three (23) academic staffs were nominated as Honorary/Adjunct Lecturers to various departments.

4.1.11 Staff Development and Performance Appraisal

i) Transfers or Resignations

During the reporting period one academic staff (Prof. Paschal Rugga jo) Acting Dean School of Medicine was transferred to the Ministry of Health. The position of the Dean School of Medicine was filled by appointing of Dr. Enica Richard to be the acting Dean of the School of Medicine who is currently Principal College of Medicine. Furthermore, there was no academic/administrative staff reported to resign from public service.

ii) Performance Agreements 2021/2022

During the reporting period all academic and administrative staff from the College of Medicine were appraised against set OPRAS objectives for 2022/2023.

iii) Security Matters

During the reporting period, there was no remarkable security issue.

iv) Health Matters

During the reporting period no death cases reported.

4.2 School of Pharmacy

4.2.1 Introduction

The School of Pharmacy has five Departments namely; Medicinal Chemistry, Pharmacognosy,



Prof. Kennedy Mwambete
Dean, School of Pharmacy

Pharmaceutics and Pharmacy Practice, Pharmaceutical Microbiology, and Clinical Pharmacy and Pharmacology. The school has one undergraduate program (Bachelor of Pharmacy) and eight postgraduate programme, which are MPharm Quality Control & Quality Assurance, MPharm Pharmacognosy, MPharm Industrial Pharmacy, MPharm Pharmaceutical Microbiology, MPharm in Hospital & Clinical Pharmacy, MPharm Medicinal Chemistry, Pharmacovigilance & Pharmacoepidemiology, and MSc Pharmaceutical Management.

The school continued to provide services in drug quality control through its Pharm Research & Development Laboratory to clients and assist in several areas of pharmaceutical services, policy formulation, and implementation. Also, the School has been spearheading a fight against the spread of antimicrobial resistance and non-communicable diseases through various outreach programmes conducted by the Tanzania Pharmaceutical Students Association (TAPSA).

4.2.2. Functions of the School

Produce pharmaceutical manpower of highest caliber able to cope with current national and international pharmaceutical personnel needs by integrating research, teaching and consultancy.

Act as a reference center in pharmaceutical knowledge creation, skills' development, job creation and management of pharmaceutical services by instituting accountable attitudes to guide the community at large.

Be the main supplier of key policy makers, experts and personnel in charge of all key positions in the pharmaceutical industry, public and private pharmaceutical institutions.

To stimulate reforms, spearhead research in the pharmaceutical sector and promote continuing education among pharmaceutical personnel.

4.2.3. Teaching and Learning

4.2.3.1. Academic programmes

In the reporting period, the school advertised its undergraduate program and all postgraduate programmes to attract applicants. Several approaches, such as the MUHAS research dissemination seminars, MUHAS Annual Scientific Conference and other professional body meetings, higher

education exhibitions within and outside the country, Pharmacy Week and the Pharmaceutical Society of Tanzania (PST) General Assembly, and the TAPSA Annual Conference, were used for marketing avenues of the programmes.

4.2.3.2. Students' Admission

Admission of Undergraduate Students for 2022/2023

For the undergraduate program, the school extended the admission capacity to 89 students, though only 79 students were admitted (28 females and 51 males); three students did turn up.

Admission of Postgraduate Students in the School for 2022/2023

During the academic year 2022/2023 a total of 21 postgraduate students were admitted as shown in Table 5 below.

Table 5: Admission of postgraduate students in 2022/2023

Program	Female	Male	Total
MSc Pharmaceutical Management	2	1	3
MPharm Quality Control & Quality Assurance	1	1	2
MPharm Hospital & Clinical Pharmacy	2	4	6
MPharm Industrial Pharmacy	-	1	1
MPharm Pharmacognosy	-	-	-
MPharm Medicinal Chemistry	-	-	-
MSc Pharmacovigilance & Pharmacoepidemiology	2	6	8
MPharm Pharmaceutical Microbiology	1	-	1
MSc by Research	-	-	-
TOTAL	8	13	21

4.2.4. Students Enrollment from 2021/2022 to 2022/2023

3.2.4.1. Undergraduate Student enrollment in 2022/2023

New and ongoing undergraduate students' registration during the reporting year is summarized in Table 6.

Table 6: B. Pharm Students registration in 2022/2023

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
28	51	79	12	53	65	19	39	58	14	55	69	73	198	271

The figure for the first-year students is relatively lower than the anticipated admission capacity (89) because three (10) students absconded for various reasons, though the figure is relatively higher than that of the year 2021/2022. However, the School intends to expand the enrolment of BPharm students to 100 for the next academic year 2023/2024 to cope with the ever-increasing number of qualified applicants for the BPharm program in the country, and this is in line with the school strategy of transforming into a College of Pharmacy once the infrastructure and other teaching facilities allow. The gender balance is comparatively improved, especially for the first year (35.4% of female students for the first year and 12.6% for the entire School). Although the School's strategy was to increase the proportion of female students from 30% to 40% by 2022.

4.2.4.2. Postgraduate Students enrollment in 2022/2023

The number of admissions for postgraduate is not very impressive though relatively higher than academic year 2021/2022 (15 students) against 18 students for academic year 2022/2023 as indicated in Table 7. Some of the factors being lack of government sponsorship for some programmes and conducive scheme of services for pharmacists.

Table 7: Postgraduate Student Admission in 2022/2023

Academic Year	MSc Pharm Manage		MPharm QC & QA		MSc Vig & PharmEpi		MPharm Hosp & Clinical Pharm		MPharm Industrial Pharmacy		MPharm Pharmacogenosy		MPharm Medicinal Chemistry		MSc by Research		MPharm Pharm. Microbiol	
	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M
2022/2023	2	1	1	1	2	6	2	1	-	1	-	-	-	-	-	-	-	1
Percentage	67	33	50	50	25	75	67	33	0	100	-	-	-	-	-	-	0	100

4.2.4.3. Field Training

BPharm 3 students went for fieldwork training in Tanga and Arusha for a period of two weeks under the faculty supervision. BPharm 4 students went for field training in pharmaceutical industries and regulatory authorities (viz., Medical Store Department, Tanzania Medicine and Medical Devices Authority, and Pharmacy Council) in Dodoma, Mwanza, Arusha, and Dar es Salaam for an uninterrupted period of 8 weeks.

Most of the postgraduate students have undergone field training in their respective areas of specialization in Dar es Salaam, such as government chemists, TMDA, and pharmaceutical industries.

4.2.4. Performances in examination in 2022/2023 academic year

4.2.4.1. Undergraduate Student performance during 2022/2023 year

The teaching of modular programmes for the undergraduate (1st, 2nd, 3rd, and 4th years) and postgraduate was well conducted. Students sat for regular Continuous Assessment Tests (CATs) and the end of module examinations in March 2023. The failure rate for the first-year students in March 2023 was 11.0%, which was lower compared to the years 2021/2022 which recorded a failure rate of 16.9% (Table 8).

Table 8: Undergraduate Student performances in examination at the first sitting

SUMMARY OF RESULTS	1 st yr	2 nd yr	3 rd yr	4 th yr
Students sat for the Examination	79	65	58	69
Students who passed	65	50	55	59
Students who failed	9	12	3	9
Students who absconded	5	0	1	0
Students who postponed studies	1	0	0	01
Students whose results were withheld	0	0	0	0
Incomplete results	0	0	0	0
Failure rate %	11.0%	18.0%	5.0%	13.0%

The second-year students recorded a failure rate of 18.0% during this semester, which is higher compared to the previous year, which had 8.1%. Third-year students recorded a failure rate of 5.0%, which is relatively lower compared to the academic year 2021/2022, which recorded a failure rate of 14.7%. One postgraduate student and two undergraduate students were discontinued on academic grounds in the March 2022 examinations.

Academic activities for the 2nd, 4th, 6th, and 8th semesters continue, and the end-of-audit year examinations are scheduled to end on August 18, 2023.

4.2.4.2. Postgraduate Student performance during 2022/2023 year

The academic performance of postgraduate students was generally good. Only MSc Pharmacovigilance & Pharmacoepidemiology and MPharm Hospital & Clinical Pharmacy second-year students sat for the March 2023 university examinations, and all of them passed. The majority of the second-year postgraduate students were on the dissertation module, and their results were reported at the end of audit year in September 2023, as indicated below in Table 9. The competency-based curricula are being implemented despite existing shortfalls such as budgetary deficits for laboratory work, a relatively higher number of students versus available faculty, and teaching infrastructure, considering that about 33% (n = 12) of the members of the academic staff are on study leave.

Table 9: Postgraduate Student Performance in academic year 2022/2023

No. of students	MSc Pharm Mgt		MPharm QC & QA		MPharm Hospt. & Clinical Pharmacy		MPharm Industrial Pharmacy		MPharm Medicinal Chemistry		MPharm Pharmacognosy		MSc Vig & PharmEpid		MPharm Pharm. Microbiol	
	Yr1	Yr2	Yr1	Yr2	Yr1	Yr2	Yr1	Yr2	Yr1	Yr2	Yr1	Yr2	Yr1	Yr2	Yr1	Yr2
Sat for the Exam	3	-	1	-	3	3	1	-	-	-	-	-	7	4	1	-
Passed	3	-	1	-	3	3	0	-	-	-	-	-	5	4	0	-
Failed	0	-	0	-	0	0	1	-	-	-	-	-	2	0	1	-
Failure (%)	100	-	100	-	100	100	100	-	-	-	-	-	28	100	100	-

4.2.5. Students output

4.2.5.1. Undergraduate Student output during 2022/2023 academic year

A total of 69 undergraduate students and 13 postgraduate students graduated during the December 2022 graduation ceremonies. More students graduated in the academic year 2022/2023 (69) compared to 2021/2022 (67), which is an increase of 3.0%.

4.2.5.2. Postgraduate Student output during 2022/2023 academic year

Thirteen (13) postgraduate students graduated during the December 2022 graduation ceremonies. More students graduated in the academic year 2022/2023 (13) compared to 2021/2022 (11), which is an increase of 18.0%. The dearth of incentives for pharmacy graduates due to the unfavorable scheme of services that does not recognize postgraduate pharmacy degree holders to a great extent deters enrollment in our postgraduate programmes.

4.2.6. Graduation ceremony

4.2.6.1. Prizes giving ceremony for undergraduate students

The graduation ceremony was preceded with prizes giving ceremony, whereby by a total of 26 prizes were worn by 12 students. Seven (58 %) of the prizes were worn by female students.

4.3.6.2. Prizes giving ceremony for postgraduate students

Three students were awarded prizes during the ceremony. Only three prizes were worn by 3 students of whom two were female students.

4.2.7. External Links related to Teaching and Learning

4.2.7.1. External Examination

In 2022/2023, the external examiners were invited to examine in the five departments of the School. However, some of them could not come due to unavoidable circumstances. For that matter, had to use moderators:

Table 10: Moderation of University examinations by External Examiners for 2022-2023

SN	Name of Ext. Exam.	Examiner's Home Institution	Inviting Department
1.	Prof. Eva Prosper Muro	Kilimanjaro Christian Medical University College	Pharmaceutics & Pharmacy Practice (Deceased)
2.	Dr. Kennedy Omondi Abuga	University of Nairobi	Medicinal Chemistry
3.	Prof. Yhiya Amen	Mansoura University, Egypt	Pharmacognosy
4.	Prof. Ephrem Engidawork	Addis Ababa University, Ethiopia	Clinical Pharmacy & Pharmacology
5.	Prof. Mariam A. Mirambo	CUHAS, Mwanza.	Pharmaceutical Microbiology

Some faculty from the School of Pharmacy served as external examiners at different universities, as indicated in the table: 11

Table 11: School of Pharmacy Faculty who were invited to moderate University Examinations to various institutions for the year 2022/2023

SN	Name	Department	University to Serve as External Examiners
1.	Dr. Vicky Manyanga	Medicinal Chemistry	CUHAS
2.	Prof. Olipa Ngassapa	Pharmacognosy	CUHAS

4.2.8 Research and Publications

4.2.8.1. Research projects

The School of Pharmacy in collaboration with the Pharmacy Council of Tanzania, the Tanzania Medical Devices and Drugs Authority (TMDA), and the Center for Pharmacy from the University of Bergen, Norway, under the Partnership to Enhance Pharmacy Education and Research (PEPER) project continues to train three PhD candidates, one from MUHAS and the other two from TMDA, in fields of interest for each part involved. As part of the PEPER project, two postgraduate students from the University of Bergen, Norway, came to Tanzania to conduct research under the students' exchange program.

Progress implementation of research project

On the same line of the project, in early September 2022, seven postgraduate students pursuing various Master's Degree programmes at the School visited the University of Bergen to complement their final year research and academic activities for a period of three months. Pharm R & D laboratory is sustaining itself through issuance of various technical services and contributing to the income generation at the university.

4.2.8.1 Seminar dissemination

The school continued conducting symposia every Wednesday from 12:40 to 13:45 as one of the strategies for strengthening academic and research activities and the exchange of skills and knowledge among faculty.

4.2.8.2 Publications in the School

Individual faculty and their research clusters continuously conducted research in areas of their interests and published their research findings in various national and international peer-reviewed journals. A total of 67 (July 2022 - June 2023) scientific publications were published in several peer-reviewed scientific journals.

4.2.9 Consultancy Services and public services

4.2.9.1 Conferences/ workshops

For this period under review, the 11th MUHAS Scientific Conference was organized at MUHAS on 22nd -23rd June 2023 in which most faculty from the School of Pharmacy actively participated. Faculty from school of pharmacy attended to sixty-five conferences/workshops.

4.2.9 Consultancy projects and revenues

For the ending academic year 2022-2023, the school continued not to receive funds for various activities conducted at the school such as short courses, sample testing, and consultancy work, as well as the production of sanitizers.

Table 12: Internally generated funds and Institutional Overheads for the year 2022/2023

S/N	ACTIVITIES	QUARTER	TSHS.	I/Overheads 15%	School income
1	Sample Testing	1st quarter 2022/2023	25,050,340.60	3,757,551.09	NIL
2	Sample Testing	2nd quarter 2022/2023	18,183,490.10	2,727,523.52	NIL
3	Sample Testing	3rd quarter 2022/2023	13,484,910.50	2,022,736.58	NIL
4	Short course	4th quarter 2022/2023	34,863,361.12	5,229,504.17	NIL
TOTAL		TZS	91,582,102.32	13,737,315.36	NIL

4.2.10 Staff Development

During the year under review (2022/2023), two academic members of staff, Ms. Cleopatra Shonyella, and Ms. Judith K. Costantine from the Department of Pharmacognosy and Beatrice Aiko from the Department of Pharmaceutics & Pharmacy Practice, completed their Master's studies at MUHAS. Mr. Dickson Pius, Mr. Masota Nelson, and Mr. Alphonse I. Marealle completed their PhD studies. Eleven (11) faculty are still pursuing PhD studies, and two (2) are on Masters Studies, as presented in Table 13.

Table 13: Academic staff training during the reporting period

S/N	Name	Gender	Department	Degree Sought (Institution)	Status
1	Mr. Meshack Damian Lugoba	M	Pharmacognosy	PhD. (KU Leuven, Belgium)	To graduate in Mar 2027
2	Ms. Wema Aswile Kibanga	F	Clinical Pharmacy and Pharmacology	PhD. Hosp & Clin Pharmacy (USA)	To graduate in Dec 2025
3	Mr. Raphael Shedafa	M	Medicinal Chemistry	PhD-Quality Control (MUHAS)	To graduate in 2023
4	Ms. Amisa Tindamanyile	F	Pharmaceutics & Pharmacy Practice	PhD (Bergen University, Norway)	To graduate in 2024
5	Mr. Vitalis Mbuya	M	Pharmaceutics & Pharmacy Practice	PhD (Bergen University, Norway)	To graduate in Dec 2025
6	Ms. Beatrice Godwin Aiko	F	Pharmaceutics & Pharmacy Practice	MSc Pharm Management-MUHAS	To graduate in Dec 2026
7	Mr. Wigilya Mikomangwa	M	Clinical Pharmacy and Pharmacology	PhD. Hosp & Clin Pharmacy (USA)	To graduate in Dec 2026
8	Mr. Hamu Mlyuka	M	Clinical Pharmacy and Pharmacology	Master. Hosp & Clin Pharmacy (UK)	To graduate in Dec 2026
9	Mr. Godfrey Sambayi	M	Pharmacognosy	PhD. Pharmacognosy (Antwepem)Belgium	To graduate in Dec 2026
10	Mr. Innocent Daniel Malisa	M	Medicinal Chemistry	PhD (Kumamoto University, Japan)	To graduate in Dec 2027
11	Mr. David Muyemba	M	Pharmaceutics & Pharmacy Practice	PhD (KU Leuven, Belgium)	To graduate in Dec 2025
12	Ms. Fatuma Felix	F	Pharmaceutical Microbiology	PhD	To graduate in Dec 2027
13	Mr. George Bwire	M	Pharmaceutical Microbiology	PhD (KU Leuven, Belgium)	To graduate in Dec 2024

4.2.11 Challenges Faced by the School and Mitigations During the Reporting Year

Infrastructure

The school continued to experience severe shortage of teaching spaces and facilities. The school is trying to address these challenges by writing research proposals and income generation proposals to obtain funds. As part of efforts to address some of the shortfalls, the university renovated two laboratories, namely Pharmacognosy and Medicinal Chemistry Laboratories, for the years 2022–2023. The Pharmaceutical Microbiology and Compounding laboratories are expected to undergo renovations in the next academic year 2024/2025.

The ratio of faculty to research outputs is low

Despite having the highest number of faculty with PhD degree, the school has very low research outputs. Some of the factors for such situations include lack of effective grant application by staff. To address this issue, the school intend to mobilize available intellectual resources for fundable research proposals. Collaborate with public and private institutions, such as TMDA, Pharmacy Council, and NIMRI, as well as other universities, to promote potential research that can be funded.

4.3 School of Dentistry

4.3.1 Introduction



**Dr. Matilda
MtayaMlangwa
Dean, School of
Dentistry**

The School of Dentistry was established in 1979 as a Division of Dentistry of the Faculty of Medicine of the University of Dar es Salaam. The objectives of the School of Dentistry is (i) To train undergraduates in all aspects of dentistry and teach theoretical medical and basic sciences leading to a degree of Doctor of Dental Surgery, (ii) To provide oral health care to patients in and around Dar es Salaam region and referral cases from upcountry, (iii) To function as a research center, where different research on oral are carried out, monitored, and coordinated with other collaborating agencies from the government and private sector in the country and from abroad. These included health agencies such as the Tanzania Food and Drug Authority, Ministry of Health, other Ministries like Commerce

and Industries, Local governments, in preventing the occurrence of oral diseases through advocating proper oral hygiene and controlling the consumption of cariogenic non-essential foodstuffs and other predisposing factors to oral conditions. (iv) To team up with the Ministry of Health in the training of other oral health personnel who usually work closely with the dental surgeon in rendering services to patients.

To-date there are only two Dental Schools in Tanzania Mainland and one in Zanzibar, but the School of Dentistry-MUHAS is the only institution in Tanzania where dental education is offered at both, first degree and postgraduate levels.

Functions:

- (i) Training graduate dentists and postgraduate specialists in different oral health fields suitable for hospital and community work in Tanzania, regionally and internationally
- (ii) Carrying out research in all fields of oral health
- (iii) Providing continuing education in all fields of oral health
- (iv) Rendering oral health services to patients at specialist and super specialist levels
- (v) Providing advisory services to the government in the field of oral health

4.3.2 Activities During the Reporting Period

In 2022/2023, Seventy-one (71) undergraduate and fourteen (14) postgraduate students were admitted to the School of Dentistry. It increased to the previous reporting year (2021/2022) there was a total number of sixty-five (65) students admitted for undergraduates and an increase of 45.5% for postgraduate students. Teaching, both theoretical and clinical, and fieldwork rotations were conducted smoothly. In September 2022 and March 2023 University examinations for both undergraduate and postgraduate students were conducted successfully according to the University almanac. The increase in undergraduate students' enrolment was because of an expressed need by the government to increase the output of trained health personnel, particularly oral health personnel, in the country. Advertisements of the programmes offered by the School locally and internationally helped to attract applicants. A total of forty-two (42) undergraduate students, thirty-four (34) males, and eighty (8) females completed their studies and graduated in December 2022. This decreased by about 0.18% compared to 2022/23 (in which 35 undergraduate students graduated). Eleven (11) postgraduate students graduated.

The school continued to use professionalism assessment tools during clinical rotations with success. Sensitization of staff and students on the importance of using this tool continued with good compliance. This is

an ongoing process that is continuously modified and improved along the way according to need. Implementation of the CBC continued smoothly focussing on inculcating onto the students' adequate skills in all aspects of clinical dentistry and community dentistry which will enable them to work independently in any part of the world. The step-wise acquisition of competencies which started with exposure during the third year followed by junior and senior clinical rotations laid down a good foundation for better performance in their future practice.

During the year under review (2022/2023) one academic member of staff continued with PhD studies. He completed his PhD courses in Norway and he is currently collecting data. Staff and students attended seminars and continuing education sessions within Tanzania. Two (2) academic members of staff were invited as external examiners I two Universities.

During the academic year under review, members of staff from the School conducted research that resulted in 15 publications; this is a decrease of 25% compared to 20 publications of the previous year. Consultation and clinical services to patients with oral health problems in the School of Dentistry clinics, The Muhimbili National Hospital and Mloganzila campus were provided throughout the year with active participation of members of staff from the School working in collaboration with clinical staff of the MNH. Core functions that were conducted by the three departments of the School during the reporting period are as summarized in the Table below:

Departments of the School of Dentistry and their Core functions

The three departments of the School of Dentistry implemented fully their core functions through teaching undergraduate and postgraduate students, conducting research, rendering services to patients and offering preventive and community activities to the general public. Outreach services in primary school and the community were carried out in Dar es Salaam and Morogoro regions.

4.3.3 Management Profile in the School of Dentistry during the Reporting Period

Table 14: The Management Team of the School of Dentistry

S/N	NAME	POSITION
1.	Dr. Matilda Mtaya-Mlangwa	Dean, School of Dentistry

2.	Dr. Sira Owibingire	Head, Department of Oral and Maxillofacial Surgery (OMS)
3.	Dr. Ferdinand M. Machibya	Head, Department of Orthodontics, Paedodontics and Community Dentistry (OPCD)
4.	Dr. Lilian E. Mkonyi	Ag. Head, Department of Restorative Dentistry (RD)
5.	Dr. Zenais Francis	Dental Manager, School of Dentistry

4.3.4 Staff Matters

There was a slight change in the number of staff compared to that of the previous reporting year with a total of members, of whom 20 (60%) are males and 10 (40%) are females. The profile of academic staff numbers and ranks is shown in Table 15

Table 15: Academic Staff in the School of Dentistry

Department	Designations							
	Professors	Associate Professors	Senior Lecturers	Lecturers	Assistant Lecturers	Tutorial Assistant	Total	On Contract
RD	0	0	4	2	0	2	9	1
OPCD	1	0	4	1	0	4	8	1
OMS	0	0	5	1	0	1	8	1
Total	1	0	13	4	0	7	25	3

KEY: RD = Restorative Dentistry, OPCD = Orthodontics, Paedodontics and Community Dentistry, OMS = Oral and Maxillofacial Surgery.

The overall faculty to students' ratio is 1:10.8 for all DDS students, 1:18.6 in Oral and Maxillofacial Surgery, 1:16.5 in Restorative Dentistry, and 1:18.6 in Orthodontics, Paedodontics, and Community Dentistry. The number of academic staff and faculty-to-student ratios were almost static (Table 16).

Table 16: Number of Administrative, Technical and Support Staff in the School of Dentistry

Qualification	Male	Female	Total
Master Degree	2	0	2
Bachelor Degree	4	2	6

Diploma	8	7	15
Certificates	0	2	2
Primary School Education	2	1	3
Total	16	12	28

The number of non-academic staff changed compared to the previous year 2021/2022. The number of non-academic staff-to-student ratio is 1:18.

4.3.5 Students matters

4.2.5.1 Enrolment Undergraduate Students

In 2022/2023, seventy-one (71) undergraduate students (22 females and 49 males) were admitted to the School of Dentistry. The number of students has increased compared to the reporting year (2021/2022) Teaching in the School and fieldwork rotations (Nutrition field, elective period and Morogoro rotations) were conducted smoothly. In August/September 2022 and March/April 2023 both undergraduate and postgraduate students sat for University examinations which were successfully conducted according to the University almanac. The sharp increase in undergraduate students' enrolment was because of an expressed need by the government to increase the output of trained health personnel in the country. Efforts made locally and internationally to advertise the programmes that are offered by the School also helped to attract applicants. However, this was not without challenges. The challenges that are anticipated include a declining number of teaching personnel while students' numbers are increasing which will create an unfavorable personnel-to-student ratio. Similarly, the increase in enrolment, while the available space and facilities remain the same, thus, poses a big challenge in clinical teaching.

The total number of undergraduate students increased from 271 to 307 in the year 2022/2023 (Table 17). This is an increase of 1.079%.

Table 17: Enrolment of Undergraduate Students, School of Dentistry

DDS	Sex		Total	Female %
	M	F		
Semester 1 - 2	49	22	71	6.7%

Semester 3 - 4	45	7	52	12.2%
Semester 5 - 6	51	10	61	4.61%
Semester 7 - 8	52	7	59	5.34%
Semester 9 - 10	59	5	64	5%
Total	256	51	307	33.85%

Postgraduate

Enrolment of Postgraduate Students:

Fourteen (14) postgraduate students were admitted to the School of Dentistry during the reporting year. Compared to the previous reporting year (2021/2022) this was an increase of about 1.18% for postgraduate students' admission. This number of postgraduate students in the school was low in all departments and compared to the capacity of the School. The school is making efforts to rectify this by encouraging undergraduate students to develop an interest in the different specialties offered by the School. Also, students are urged to work hard and attain good overall GPAs which will allow them to compete for admission to postgraduate studies in the different programmes that are offered by the School.

4.3.6 External examiners

The School did not receive any external examiners for the March 2023 University examinations. There were moderators for each department.

The observations and recommendations of the moderator were discussed at departmental and School Board levels and reactions were submitted to higher University organs and appropriate measures by the departments were accordingly taken.

4.3.7 Graduation Statistics

In December 2022 forty-two (42) undergraduate (thirty-four (34) males and eighty (08) females) and eleven (11) postgraduate students graduated. Generally, there was a decrease of 0.81 for all undergraduates and a 0.81% decrease in the number of female graduates. For postgraduates, the number of students decreased to 50% compared to the previous year (2021/2022) from 4 to 2 (Table 18).

Table 18: Graduation Statistics of Undergraduate and Postgraduate, School of Dentistry for the Year 2022/2023

Undergraduate - Degree Programme (DDS)	Number of DDS Students Graduated		
	M	F	TOTAL
	34	08	42
Postgraduate – All MDent Degree Programmes	Number of MDent Students Graduated		
	M	F	TOTAL
	7	4	11

4.3.8 Major Ongoing Research

Several research projects were in progress during the reporting period some of which are internally funded and some externally funded. During the reporting period School of Dentistry had eight (8) research funded projects.

4.3.9 Major works implemented during 2022/2023

4.3.9.1 Department of Restorative Dentistry (RD)

During the reporting period the School of Dentistry implemented various activities through their departments as follows:

- 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.
- 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. Visits to primary schools by postgraduate students and their supervisors were conducted.

4.3.9.2 Department of Orthodontics, Paedodontics and Community Dentistry (OPCD)

- i. Promotion of research activities among staff through writing grant proposals and concept notes continued.
- ii. Provision treatment service to children with special needs.
- iii. Conducting of outreach services to schools.
- iv. Promotion of collaboration with other Universities.

4.3.9.3 Department of Oral and Maxillofacial Surgery (OMS)

- i. Promotion of research activities among staff through writing grant proposals and concept notes.
- ii. Provision of specialized treatment services to adults and children for both outpatients and inpatients.
- iii. Promotion of collaboration with other Universities and strengthen existing collaboration.

4.3.10 MUHAS - MNH Cooperation and Clinical services

Good working relationship and cooperation was maintained between the two institutions during the reporting period (2022/2023). The MUHAS-MNH staff meetings took place every three months. During 2022/2023 most of the routine activities in the School were run using internally generated funds with minimal dependence on government subventions.

4.3.11 Visits

Visit to the School of Dentistry

The School received visitors from USA and Turkey.

Visit from the School of Dentistry

The School members (4) visited abroad (Turkey-Ankara University) in an academic trip.

4.3.12 Deaths

One staff has passed away during the year 2022/2023.

4.4 School of Nursing

The Annual Report for the year 2022/2023 consists of two main sections: Introduction and Highlights of Major Achievements, Challenges and Mitigations



Dr. Dickison A. Mkola
School of Nursing

4.4.1 Introduction

In the academic year 2022/2023 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 (3) Undergraduate programmes and six (6) Postgraduate programmes. Undergraduate programmes are; Bachelor of Science in Nursing, Bachelor of Science in Nurse Anesthesia and Bachelor of Science in Midwifery. The Post Graduate Programmes are: Master of Science Nursing in Mental Health, Master of Science Nursing in Critical Care and Trauma, Master of Science in Midwifery and Women's Health, Master of Science Oncology Nursing, Masters of Science Nephrology Nursing and Masters of Science Cardiovascular Nursing

4.4.2 Highlights of Major Achievements, Challenges and Mitigations

4.4.2.1 Major Achievements

During 2022/2023 reporting year, the School recorded various achievements as detailed below:

Teaching and Learning

Comparing with the year 2021/2022, in 2022/2023, the total enrollment for Undergraduate students increased by 437 also the Postgraduate students increased by 86 (Table: 19). The percent increase in Undergraduate was contributed by increased enrollment of students in BSc. Nurse Anesthesia and BSc. Midwifery. The percent increase in Postgraduate was contributed in enrollment of students in almost all Postgraduate programmes.

Table 19: Enrolled Undergraduate and Postgraduate students in 2021/2022 and 2022/2023

Programmes	Enrolled students in 2021/2022	Enrolled students' in 2022/2023
Undergraduate Programmes	404 (18.1% increase)	437
Postgraduate Programmes	71 (10.1 % decrease)	86
Total	475 (12.8% increase)	523

For the year 2022/2023, the total number of 214 students was registered to join both Undergraduate and Postgraduate programmes in the SON. The distribution was as follows; BSc. Nursing sixty-nine (69); BSc Nurse Anesthesia fifty -three (53); BSc Midwifery twenty-two (22); MSc. Nursing in Mental Health two (2); MSc. Nursing in Critical Care and Trauma twenty-six (26); MSc. Nephrology Nursing fifteen (15); MSc. Cardiovascular Nursing five (5), MSc. Oncology Nursing five (5) and MSc. Midwifery and Women's Health seventeen (17). There was a increase in total number of first year registered students for Undergraduate for Bachelor of Science in Nursing. Overall there was small decrease in total number of first year for all undergraduate programmes in the year 2021/2022 (129) compared to the year 2022/2023 (144). Also, there was a considerable increase in total number of first year registered students for all postgraduate programmes increased from 22 in 2021/2022 to 70 in 2022/2023. For Postgraduates, the number of applicants who registered increased number of students who registered for almost all programmes. (Table: 20).

Table 20: Registered first year Undergraduate and Postgraduate students in 2021/2022 and 2022/2023

Undergraduate Programmes	Registered students in 2021/2022	Registered students in 2022/2023
BSc. Nursing	61 (10.3% decrease)	69
BSc. Midwifery	20 (5.3 increase)	22
BSc. Anesthesia	48 (2.1 increase)	53
Total	129 (3.7 % decrease)	144
Postgraduate Programmes		
MSc. Nursing Critical Care and Trauma	4 (42.9% decrease)	26
MSc. Nursing Mental Health	1 (no increase)	2
MSc. Midwifery and Women's Health	4 (55.6% decrease)	17
MSc. Nephrology Nursing	10 (9.0% decrease)	15
MSc. Cardiovascular Nursing	2 (81.8% decrease)	5
MSc. Oncology Nursing	2 (80 % decrease)	5
Total	22 (55.1 decrease)	70

Performance in examinations

The percent of Undergraduate students who passed all courses in the first sitting was 334/465 in 2022/2023. Also, the supplementary cases were 100/465 in 2022/2023. In the last reporting year, about 7.6% of student were discontinued. This is lower number compared to 2022/2023 where only 5 were discontinued. The pass in first sitting for Postgraduate students were 50/82 in July/August 2022/2023. Also, the supplementary cases were 29/82. Also, there was 2 discontinued students in the reporting year of 2022/2023 (Table: 21).

Table 21: Performance in Examination for Undergraduate and Postgraduate in year 2022 and 2023

Undergraduate Programmes	July/August 2023			
	Pass	Supplementary	Discontinuation	Incomplete results
BSc. Nursing	202/265	53/265	2/265	-
BSc. Midwifery	42/61	13/61	1/61	-
BSc. Nurse Anesthesia	100/139	34/139	2/139	-
Total	334/465	100/465	5/465	-
Postgraduate Programmes				
MSc. Nursing Critical Care and Trauma	13/15	8/15	-	-
MSc. Nursing Mental Health	3/3	3/3	-	-
MSc. Midwifery and Women's Health	4/17	3/17	-	-
MSC Oncology Nursing	9/12	2/12	1/12	-
MSC Nephrology Nursing	11/20	8/20	1/20	-
MSC Cardiovascular Nursing	10/15	5/15	-	-
Total	50/82	29/82	2/32	-

Graduation in December 2022 and 2023 for Undergraduates and Postgraduates

Comparing with the year 2022, in 2023, the number of graduates in Undergraduate increased by 89 for undergraduate but decreased by 23 for Postgraduate programmes respectively. The increase observed for undergraduate programmes is because of increased number of BSc. Midwifery and Anesthesia graduates (Table: 22)

Table 22: Number of Graduates in Undergraduate and Postgraduate Programmes in 2022 and 2023

Undergraduate Programmes	Number of Graduates in December 2022	Number of Graduates in December 2023
BSc. Nursing	62	60
BSc. Midwifery	-	14
BSc. Nurse Anesthesia	-	15
Total	62	89
Postgraduate Programs		
MSc. Nursing Critical Care and Trauma	8	4
MSc. Nursing Mental Health	1	1
MSc. Midwifery and Women's Health	8	4
MSc Cardiovascular Nursing	11	2
MSc Nephrology Nursing	10	10
MSc Oncology Nursing	10	2
Total	48	23

Curricula for New Masters of Nursing Programs

Development of curricula for four new programs namely Master of Science in Neonatology and Neonatal Intensive Care Nursing (MSc. NNICN), Master of Science in Nursing Education (MSc. NE), Master of Science in Leadership and Management, Master of Science in Pediatric and Adolescent Health Nursing (MSc. PAHN) are in progress and all four programs are expected to start in 2023/2024 academic year.

Short courses

During the reporting period of 2022/2023, fifteen (15) short courses were conducted. These short courses include; Teaching Methodology (eleven trainings); Basic Critical Care for Nurses (one training) and Basic Emergence Obstetric Care (two training).

Services and consultancies

External examiners and Travel

In 2022/2023, faculty members acted as External examiner in various Universities namely: University of Dodoma (UDOM), Dodoma, and Hubert Kairuki Memorial University. In addition, during the reporting year, most staff participated in workshops as well as other Continuing Education for professional Developments. In line with the President's Directives on travels, the numbers of local travels increased compared to international travels by overall increase. (Table 23). This implies academic staff members were able to interact and render more services to the local than international community.

Table 23: Number of international travels versus local travels 2022/2023

Period	International Travel (Outside Tanzania)	Local travels (Within Tanzania)	Local travels Percent increase / decrease
July/September 2022 Quarter	-	NIL	100% increase
October/December 2022 Quarter	0	7	100% increase
January/March 2023 Quarter	0	3	None
April/June 2023 Quarter	0	3	100% increase
July/September 2023 Quarter	2	3	100% increase
TOTAL	2	16	42.9% increase

Consultancy

The SON consultancy bureau was approved in November 2017. The SON is actively working on different strategies to make sure the bureau facilitates income generation.

Collaborations and Networking

International links

Generally, in 2022/2023 there was a decrease in number of international visitors mainly due to travel restriction in other countries following COVID-19 pandemic. NEPI, a collaborative elective exchange within three Universities namely Makerere University, Uganda, Ekwedeni University, Malawi and MUHAS was established in March, 2017. However, for the reporting year of 2022/2023, there are 24 elective students to and from SON-MUHAS. Also, during the reporting period, partnerships for research, teaching and student exchange with other Universities e.g. Bergen University College, Norway; University of Southern Denmark and University College Sydnsk, Denmark; Uppsala University and Umea, Sweden; Department of Health, State of Western Australia, Dalhousie University, Canada; and Pennsylvania State University in USA and University of Minnesota continued well. The School also renewed two MoU with Nagasaki University and St. Luke's University, Japan

Local links

The School of Nursing continued to collaborate with other Schools of Nursing in the eight Universities of health sciences (public and private) in Tanzania through the Dean's Forum. These are: University of Dodoma (UDOM), Dodoma; Catholic University of Health and Allied Sciences (CUHAS), Mwanza; St. Johns University, Dodoma; Aga Khan University, Dar es Salaam; Hubert Kairuki Memorial University, Dar es Salaam; International Medical Technology University, Dar es Salaam; and Kilimanjaro Christian Medical

College, Moshi. The Forum intends to collaborate in various activities to promote Nursing and Midwifery Education and Professionalism in Tanzania.

Also, the School continues to collaborate with other Institutions such as Muhimbili National Hospital, Municipal Hospitals and Lugalo Hospital in Dar es Salaam, Mirembe Psychiatric Hospital and Isanga Institute, Dodoma for students' clinical placements. The SON therefore strives to maintain and strengthen these links and made concerted efforts to promote International, Regional and Local Links.

Research and Publications

During the year under review, faculty in the School carried out research and submitted proposals for ethical clearance and manuscripts for publications in International Journals. During the reporting period 40 papers were published in peer reviewed Journals. This was increased by 19% when compared with 16 papers published in 2021/2022.

Also, the number of publications whereby a faculty member was the first author were 14 in 2022/2023 with no increase if compared to the same number of 5 in 2020/2021.

Grants

During the reporting period school of nursing had the following active donor funded research projects;

- i. Sexual Health Training for Health Professional Students
- ii. Health Literacy competencies to improve respectful compassionate care in Tanzania (HEALCARE)

Human Resource Development in the School of Nursing

Staff recruitment

The School has an obligation to maximize its collaborative opportunities to ensure adequate staffing levels are reached by all means. In 2022/2023, despite an increased number of students for both graduate and postgraduates, 10 junior faculty members at the rank of tutorial assistants were recruited in adding a total number of faculty from 25 in 2021/2022 to 40 2022/2023

Thus, the School is striving through various means to overcome the challenge of inadequate number of faculty through lobbying with the management for recruitment of new faculty both at juniors and seniors level.

Staff development

In the year under review 2022/2023 four (4) faculty continued with PhD training in various Universities; St. Luke's University in Japan (Dorikas Mwakawanga), Shandong University (Nyangwaswa Athanas Michael), MUHAS (Rashid Heri & Baraka Morris).

In addition, four (4) faculties are continuing with their full time Masters of Nursing training in various universities both local and international. These are Ms. Akinata P. Banda, Mr. Benedictor T. Mgala, Ms. Vaileth Frank. Mgoji and Mr. Rwegasira John.

Resource Mobilization

A major source of income for the School during the reporting period was from short course(s). Generally, there is decrease of income for the School in the year 2022/2023 and this decrease has been attributed to decreased number of elective students applying for elective attachments at School of Nursing, MUHAS due to travel restriction which has not yet lifted in some countries due to COVID-19 pandemic.

4.4.2.2 Challenges faced by the School and Mitigations

Infrastructure

Although the School continued to share facilities (teaching venues, research facilities and clinical placements) with other Schools, Muhimbili National Hospital, and municipal hospitals, the School still lacks a fully equipped Simulation Laboratory with items such as Models and Simulation materials. However, major progress has been made on efforts to equip the skills lab. For example, for Midwifery there are three working manikins: Mama Natalie, Baby Natalie and vaginal examination models and numerous supplies in a big room within Continuous Health Profession Education (CHPE) building. The manikins are used for training students with nursing and midwifery skills using simulation methods of teaching. Teaching students using skill lab helps students to realize skills in the skills laboratory before entering the clinical setting for further learning using real patients. The primary goal of the skills laboratory is to provide a safe environment for learners to become competent with skills and thereby becoming a safe practitioner to real patient while working towards building their skills in nursing and midwifery. Furthermore, the School has hired one Skill Lab technician on volunteering basis to ensure supportive learning environment during skill learning facilitation

Staff

The School is lacking adequate number of senior staff. Most junior faculty members are on postgraduate studies (MSc. and PhD). Currently the school has only two associate professors and eight lectures. The School using collaborative partners organized two manuscript writing retreat aiming at increasing number of publications that would contribute for promotion of staff to senior academic rank. Furthermore, in the year 2022/2023 four grant applications were submitted and secured two NIH fund for the coming five years. The fund from the grant are expected support senior staff to conduct studies that will generate useful data for publications as well as supporting junior staff for PhD studies.

4.5 School of Public Health and Social Sciences

4.5.1 Introduction



Prof. G. Frumence
Dean, SPHSS

The School of Public Health and Social Sciences (SPHSS) is one of the seven schools in the University. The staff in the School perform all the core functions of the University which are Teaching, Research and Consultancy services and in doing these, the School collaborates with other Institutions in research and joint supervision of students. This report describes all activities conducted in the school of Public Health and Social Sciences during the financial year 2022/2023. The activities have been summarized into: Teachings and learning, conference, Research, Consultancy, existing links, and publications.

4.5.2 Vision, Mission and Functions of SPHSS

4.5.2.1 Vision Statement

To become a center of excellence in Public Health in Tanzania, East Africa and beyond

4.5.2.2 Mission Statements

Strives to advance the health status of people in Tanzania and beyond through teaching, research, consultancy and public health service using public health principles

4.5.2.3 The Functions

SPHSS offers adequate, innovative, and relevant demand driven academic programmes for undergraduates and postgraduate levels. We also provide an enabling environment for integrated growth of students and staff. Research is part of our mandate to generate, preserve and disseminate knowledge; we have created an encouraging environment to undertake quality and relevant research. School also offers a variety of consultant services to our stakeholders and clients. These have been integrated within our core functions.

4.5.2.4 Departments

SPHSS comprises of staff with different area of academic specialization who are grouped in the seven departments which are; Department of Development Studies, Department of Parasitology and Medical Entomology, Department of Environmental & Occupational Health, Department of Behavioural Sciences, Department of Epidemiology & Biostatistics, Department of Bioethics and Health Professionalism and Department of Community Health

4.5.3 Teaching and Learning

4.5.3.1 Academic Programmes

The School hosts one Undergraduate Programme namely Bachelor of Science Environmental Health Sciences (BSc. EHS) and eighteen postgraduate programmes as listed below:

- i. Master of Public Health Regular Track (MPH),
- ii. Master of Public Health - Executive Track (MPH-EXEC),
- iii. Master of Public Health Distance Learning (MPH-DL),
- iv. Master of Arts in Health Policy and Management (MA HPM),
- v. MSc in Tropical Diseases Control (MSc. TDC),
- vi. MSc in Applied Epidemiology (MSc-AE),
- vii. MSc in Epidemiology and Laboratory Management (MSc ELM),
- viii. MSc in Parasitology and Medical Entomology (MSc. PE),
- ix. Master of Medicine Community Health (MMed Com Health),
- x. Master of Science in Behaviour Change (MSc. BC),
- xi. Master of Science in Behaviour Change Communication (MSc. BCC) for Health,
- xii. MSc. in Environmental and Occupational Health (MSc. EOH),
- xiii. Master of Bioethics and Health Professionalism (MBE),
- xiv. MSc. Health Information Management (MSc. HIM),
- xv. MSc in Project management, monitoring and evaluation in Health (MSc. PMMEH),
- xvi. MSc. in Health Economics and Policy (MSc. HEP),
- xvii. MSc Implementation Science (MSc. IS) and
- xviii. MSc. Nutritional Epidemiology (MSc. NE)

4.5.3.2 Students Admission

Undergraduate Student admission during from 2017/2018 to 2022/2023

SPHSS has one undergraduate program, BSc. Environmental Health Science with capacity to enroll 100 students every academic year. In this ending academic year, the total number of 89 undergraduate students enrolled in the 2022/2023.

A total of 11 students were admitted in this program however did not manage to register for several reasons and mostly was due to financial problems (Table 24).

Table 24: Student's enrollment from 2017/2018 to 2022/2023

		2017/2018			2018/2019			2019/2020			2020/2021			2021/2022			2022/2023		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
	BSc. Environmental Health	42	18	60	5	3	91	6	3	96	73	2	94	6	2	89	5	3	89
					8	3		5	1			1		3	3		9	0	

Postgraduate Student admission during from 2017/2018 to 2022/2023

In this ending academic year, the total number of postgraduate students enrolled in the 2022/2023 has slightly increased compared to the previous years. The school enrolled a total of 179 students which increased by 15 (8.5%) from 164 students who were enrolled in 2021/2022 (Table 25).

Table 25: Postgraduate Student Enrolment from 2017/2018 to 2022/2023

		2017/2018			2018/2019			2019/2020			2020/2021			2021/2022			2022/2023		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
1	MBE	9	2	11	6	5	11	7	1	8	3	5	8	2	2	4	0	0	0
2	MA-HPM	0	1	1	0	2	2	1	0	1	4	0	4	1	0	1	0	0	0
3	MPH-ODL)	50	1	66	4	2	60	4	2	72	40	2	62	4	2	65	2	3	66
			6		0	0		3	9			2		0	5		9	7	
4	MPH Executive Track	4	1	15	2	7	9	7	1	23	3	1	15	7	1	18	6	1	20
			1						6			2			1			4	
5	MPH IS	0	0	0	0	0	0	0	0	0	4	5	9	2	4	6	3	5	8
6	MPH Regular Track	11	5	16	1	6	17	7	8	15	6	9	15	1	8	18	6	7	13
					1									0					
7	MSc AE)	8	4	12	7	5	12	5	4	9	9	5	14	1	3	14	8	6	14
														1					
8	MSc. BCC	0	0	0	1	0	1	0	4	4	0	1	1	0	2	2	0	0	0
9	MSc EOH	3	3	6	1	2	3	1	4	5	2	2	4	1	1	2	2	1	3
10	MSc. ELM	4	1	5	6	3	9	5	2	7	7	3	10	3	4	7	4	3	7
11	MSc. PMMEH	26	3	60	1	1	30	1	2	38	12	1	30	7	9	16	1	1	29
			4		7	3		5	3			8					3	6	

1 2	MSc TDC		1	1	2	2	4	0	3	3	1	0	1	0	3	3	2	2	4
1 3	MSc PE	1	1	2	3	1	4	1	0	1	3	5	8	0	0	0	0	0	0
1 4	MSc. BC	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1 5	MSc. HIM	4	6	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1 6	MMed CH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1 7	MSc. HEP	0	0	0	0	0	0	0	0	0	9	1 1	20	3	5	8	9	6	15
	TOTAL	12 0	8 5	20 5	9 6	6 6	16 2	9 2	9 4	18 6	10 3	9 8	20 1	8 7	7 7	16 4	8 2	9 7	17 9

4.5.3.3 Field training

The school under Department of Community Health successfully coordinated the following fields.

1. MD4 field rotation involved the total of 241 students who were divided into four groups. Field consisted of 4 groups conducted in Pwani area (Kibiti, Ikwiriri, Mkuranga, Chalinze, Msata and Miono in rotations).
2. Family cases study consist of 4 parts for which a total number of 289 for MD2/ DDS 2 had four visits whereas first visit was conducted at Mikocheni/ Mabibo oxidation ponds, second visit; upper / Lower Ruvu water treatment plant, third visit; visit to House Hold/ community and the fourth visit was Kimara area, mbezi area in kibamba
3. Communicable disease control (CDC) field project for Md3 was conducted in Tanga Municipal council with total of 223 students
4. BSc. EHS field work with total of 85 students was conducted at Moshi, Arusha, and Manyara regions.
5. Nutrition Field work project for BSC EHS2 was done in Morogoro and Kilosa with total of 85 students

4.5.3 Undergraduate Student performance during 20221/2023

During reporting period 2022/2023 the total of 270 students were registered for which 267 sat for examination. Among 267 students who were examined 209 passed, 55 failed one or more course/module, 3 had incomplete results while 3 out of 270 enrolled students froze studies as shown in the table 26

Table 26: Undergraduate Student performance during 2022/2023

S/N	Year of Study	Number of students in the class	No. Passed and recommended to proceed to next semester/Awarded degree)	No. Supplementing in one or more courses	No. Incomplete results	Froze studies	Discontinued
1	BSc. EHS Year 1	89	55	30	1	3	0
2	2 nd Year	90	75	13	2	0	0
3	3 rd Year	91	79	12	0	0	0
	Total	270	209	55	3	3	0

Postgraduate Student performance during performance during 2022/2023

During reporting period 2022/2023 the total of 473 students were registered for which 280 sat for all examination. Of 280 students who were examined, 166 passed, 131 failed one or more course/module, 193 had incomplete results while 29 out of 473 students froze studies. A total of 150 (78%) of students with incomplete result are from MPH Distance Learning programme. Table 27 below provides more details.

Table 27: Postgraduate Student performance during 2022/2023

Program	no. of students sat for examination	No. Passed and recommended to proceed to next semester/be Awarded degree	No. Supplementing in one or more courses/Submit error free within 3 months	No. with Missing Courses (abscond/	No. with froze studies)	No. marginally failed dissertation/r esubmit within 6 months	No. Discontinued from Studies on academic or /abscondment grounds
MSc AE Year 1	14	7	6	0	0	0	1
MSc AE Year 2	13	10	1	2	0	0	0
MSc AE X	1	0	0	0	1	0	0
MSc ELM Year 1	7	4	2	0	0	0	1

MSc ELM Year 2	10	10	0	0	0	0	0
MPH Regular	18	12	3	5	0	0	1
MPH Exec Track 1	18	10	5	0	2		1
MPH Exec Track 2	14	4	0	9	1	0	0
MPH Exec Track X	1	0	0	0	0	0	1
MPH Exec Track X	2	0	0	0	0	0	2
MPH Exec Track X	2	1	0	0	0	0	1
MPH ODL Year 1	65	34	25	4	1	0	3
MPH ODL Year 2	58	2	21	54	3	0	1
MPH DL X	68	3	8	65	2	0	0
MPH DL X	32	1	4	27	3	0	0
MPH DL X	14	2	3	4	5	0	10
MSc PMMEH Year 1	19	7	11	0	1	0	0
MSc PMMEH Year 2	26	9	11	11	1	0	2
MSc PMMEH X	11	4	5	0	1	0	2
MSc PMMEH X	1	1	1	0	0	0	0
MPH IS Year 1	6	2	4	0	0	0	0
MPH IS Year 2	9	8	0	1	0	0	0
MSc EOH Year 1	2	0	2	0	0	0	0

MSc EOH Year 2	4	4	0	0	0	0	0
MSc EOH - X	1	1	0	0	0	0	0
MBE Year 1	4	2	1	1	0	0	0
MBE Year 2	7	4	3	0	0	0	0
MSc PE Year 2	8	5	3	0	0	0	0
MSc TDC Year 1	3	1	1	1	0	0	0
MSc TDC Year 2	1	0	1	0	0	0	0
MA HPM Year 1	1	0	1	0	0	0	0
MA HPM Year 2	2	0	0	2	0	0	0
MSc HEP Year 1	9	6	3	0	0	0	0
MSc HEP Year 2	18	10	5	8	0	0	0
MSc BCC Year 1	2	0	1	0	0	0	1
MSc BCC Year 2	2	2	0	0	0	0	0
TOTAL	473	166	131	193	21	0	27

4.5.3.5 Students Output

Data on the undergraduate students output in the SPHSS for the period of 2017/2018 to 2021/2022 is shown in table 28 below:

Table 28: Undergraduate Students output during from 2017/2018 to 2021/2022

1	BSc. Environmental Health Sciences (EHS)	2017/2018			2018/2019			2019/2020			2020/2021			2021/2022		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
		2	2	4	1	1	3	3	1	54	5	3	85	6	3	90
		1	3	4	6	7	3	8	6		3	2		0	0	

Data on the postgraduate students output in the SPHSS for the period of 2017/2018 to 2021/2022 is shown in table 29. below:

Table 29: Postgraduate Students output during from 2017/2018 to 2021/2022

		2017/2018			2018/2019			2019/2020			2020/2021			2021/2022		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
1	Master of Bioethics (MBE)	7	1	8	5	0	5	3	3	6	7	1	8	3	4	7
2	Master of Arts in Health Policy and Management (MA-HPM)	1	0	1	0	0	0	0	3	3	1	0	1	0	0	0
3	Masters of Public Health (MPH)	9	1	2	4	2	6	34	25	59	25	35	6	2	2	44
		2	1	3	0	3							0	0	4	
4	MPH Implementation Sciences (MSc. IS)	0	0	0	0	0	0	0	0	0	0	0	0	3	5	8
5	MSc. Applied Epidemiology (MSc AE)	5	4	9	6	5	1	8	5	13	5	4	9	6	4	10
							1									
6	MSc Behaviour Change Communication (MSc. BCC)	0	2	2			0			0	1	1	2	0	2	2
7	MSc Environmental and Occupational Health (MSc EOH)	2	2	4	3	3	6	0	2	2	2	2	4	2	3	5
8	MSc, Epidemiology and Laboratory Management (MSc. ELM)	3	2	5	4	1	5	6	3	9	3	2	5	7	3	10
9	MSC Project Management, Monitoring and Evaluation in Health (MSc. PMMEH)			0	8	4	1	1	2	41	1	2	4	1	9	20
							2	3	8		5	8	3	1		
10	MSC Tropical Diseases Control (MSc TDC)	0	3	3	0	0	0	2	3	5	0	3	3	1	0	1
11	MSc Parasitology and Medical Entomology (MSc PE)	1	0	1	1	1	2	2	0	2	1	0	1	5	4	9
12	MSC Behaviour Change (MSc. BC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	MSC, Health Information Management (MSc. HIM)	1	1	2	0	0	0	3	4	7	1	0	1	0	0	0
14	Mmed Community Health	0	0	0	0	0	0		0	0	0	0	0	0	0	0
15	MSc Health Economics Policy (MSc. HEP)	0	0	0	0	0	0	0	0	0	0	0	0	6	4	10
	TOTAL	29	27	56	62	30	92	58	48	106	46	48	95	70	74	144

4.5.4 Research and Publications

4.5.4.1 Research Projects at SPHSS

1. Sponsored project

During the year under review SPHSS had 15 and 9 ongoing funded research projects managed by staff and students respectively. All projects were progressing well and the detail status of implementation is attached as appendix II. In addition, SPHSS managed inter into thirty (30) research collaboration links

4.5.5 SPHSS Consultancy Services

4.5.5.1 Number of Consultancy projects

During this reporting time School of Public Health and Social Sciences has 15 consultancies listed below

1. Therapeutic efficacy Surveillance in Chiwale, Masasi district
2. Study on Women's Health and Life Experiences in Tanzania
3. Examining Factors Affecting Beneficiaries to Enroll on E-payment: A case of the first three Roll Out Groups
4. Establishment of Village Emergency Health care services in collaboration with Abbott-Tanzania
5. Induction training to Districts Health Management Teams in Zanzibar. A Technical Assistance By the World Health Organization
6. Conducting Data Quality Assessments (DQAs) at DoD/WRAIR-supported facilities through funding from the US President's Emergency Plan for AIDS Relief (PEPFAR) in Tanzania
7. Consultancy to enhance country analytical capacity and data use in Eastern and Southern Africa (PERSuADE II): Global Fund to Fight HIV, TB, and Malaria End line review of the health Sector Strategic Plan IV
8. Guidelines for development of mass hand washing facilities in public places funded by WaterAid Tanzania for the Ministry of Health. (Dr. Gloria Sakwari)
9. Partnership to Enhance Country Analytical Capacity and Data Use in East and Southern Africa- (PERSUADE) (Prof. Rose Mpembeni)
10. Factors predisposing the occurrence and Transmission of Ebola Viral Disease prevention strategies six high risk regions in Tanzania".
11. Expression of interest to provide technical assistance for the development and delivery of training for DHMTS on strategic and operational planning, district services management, and result-based monitoring and evaluation in Zanzibar
12. Factors associated with vulnerability and response preparedness to Ebola virus disease in four high risk regions in Tanzania mainland and Zanzibar: a socio-cultural anthropological assessment
13. Bio-behavioral Survey of HIV and other Sexually Transmitted Infections among women and men at high risk of contracting HIV infection and people who inject drugs.

14. This is PEPFAR funded project being implemented in partnership with other institutions. ICAP is a leading institution and the NACP is the PI of the project. MUHAS is contracted to support data management and analysis.
15. The project aims at establishing HIV prevalence and prevalence of HBV, HCV, and syphilis in

4.5.5.2 Conferences

During the reporting period staff under school of public health and social sciences attended 21 conferences within and outside the country

4.5.8 Construction and renovation of teaching and learning infrastructure

4.5.8.1 New construction

During this reporting period the School of Public Health and Social Sciences use its internal generated fund finalized the construction of one floor (vertical extension) of F2 Building. In this construction the school secured seven offices.

4.5.9 Budget Implementation

SPHSS received total budget amounting to 154,081,000 Tanzanian Shillings for implementation of its activities including orientation of students, teaching, examination and student field activities. All budgeted activities were implemented as planned. Some remaining funds have been carried forward to FY2023/24 to purchase computers and furniture for staff.

The School of Public Health and Social Sciences (SPHSS) is one of the five schools in the University. The staff in the School perform all the core functions of the University which are Teaching, Research and Consultancy services and in doing these, the School collaborates with other Institutions in research, student exchange and joint supervision of students. This report describes all activities conducted in the school of Public Health and Social Sciences during the previous academic year 2020/2021. The activities have been summarized into: Teachings and learning, Meetings, Workshops, Research, Consultancy, existing links, and publications.

4.5.10 Existing Programmes

The School hosts one Undergraduate Programme namely Bachelor of Science Environmental Health Sciences (BSC EHS) and seventeen postgraduate programmes namely, Master of Public Health Regular Track (MPH), Master of Public Health - Executive Track (MPH-EXEC), Master of Public Health Distance Learning (MPH-DL), Master of Arts in Health Policy and Management (MA HPM), MSc in Tropical Diseases Control (MSC

TDC), MSc in Applied Epidemiology (MSc-AE), MSc in Epidemiology and Laboratory Management (MSc ELM), MSc in Parasitology and Medical Entomology (MSC PE), Master of Medicine Community Health (MMed Com Health), Master of Science in Behaviour Change (MSc BC), Master of Science in Behaviour Change Communication (MSC BCC) for Health, MSc. in Environmental and Occupational Health (MSc EOH), Master of Bioethics and Health Professionalism (MBE), MSc Health Information Management (MSc HIM), MSc in Project management, monitoring and evaluation in Health (MSc PMMEH), MSc in Health Economics and Policy (MSc HEP) and MSc in Implementation Science (MSc IS).

4.6 Institute of Traditional Medicine

4.6.1 Introduction



Dr. Joseph Otieno
Director, ITM

The Institute of Traditional Medicine, previous known as Traditional Medicine Research Unit was established under the Muhimbili University College of Health Sciences, Act of Parliament no. 9 of 1991, Section 10 (1) (c). The Act provided for an Institute Board that reports to the Academic Board of the College. The Institute is charged with the responsibility to research into traditional healing systems, in Tanzania, to identify useful practices which can be adopted and to identify Useful *material medical* which can be modernized and developed into drugs for use to improve human health. Tanzania is estimated to have over 80,000 traditional healers with varying specialties. Most healers are herbalists using mainly plants and a few animal and mineral products in their practices. Traditional healers are likely to be first consulted health provider due to socio-cultural settings in rural Tanzania. The estimated traditional healer: population ratio is 1:400 compared to 1:30,000 for medical doctor to population ratio.

Of all over 12,000 higher plant species growing in Tanzania, at least 10% have medicinal values and some of them already have a big market potential worldwide and can be exploited for local drug production. The Institute is already poised to play a leading role in the development of this vast resource by strategically creating expertise in all areas related to drug development, including research and training in good practices, basic science knowledge, phytochemistry, biological testing, pre-clinical studies, clinical trials and evaluation, pharmaceutical technology, standardization of herbal pharmaceuticals, biotechnology etc. The goal is to produce herbal medicines with best levels of active molecules

4.6.2 Highlights of Activities Implemented in 2022/2023

During the reporting period, the Institute continued to run postgraduate training in Traditional medicine development at PhD and MSc levels successfully whereby one PhD and 5 MSc students graduated. Current

Enrolled students include 5 PhD and 1 MSc student. In addition, the institute has two accredited continuing education and professional development (CEPD) short course for Traditional Health Practitioners (THP). The aim of first continuing education and professional development (CEPD) courses is to instill good practices in professional conducts of THPs while the second is to training different experts in pharmaceutical aspects of traditional medicine; Quality control regulation and Intellectual property rights. Through these training, the Institute has increased the opportunity for its stakeholders to deliver innovative products and services that aid the integration of traditional medicine in Tanzanian health care system.

The Institute continued with its research to develop, standardize, and dispense quality herbal medicinal products, after being proven for their effectiveness and safety. The income accrued from sales of herbal medicine was TZS 328,140,500/=products in a competitive market such as supermarkets and Pharmacies.

During the reporting period, the Institute attracted 2 new research funds making up to 6 currently ongoing Research projects that are at various levels of funding while four (4) were completed. The Institute, produced 14 Publications, participated in Four (4) exhibitions at National and International levels. Also, participated in 88 workshops/seminars, scientific conferences and national or international experts' meetings.

4.6.3 Students' Matters

4.6.3.1 Academic Programmes

During the reporting period the Institute continued offering training programmes, which included: -

- i. One program in MSc in Traditional Medicines Development,
- ii. PhD program
- iii. Two CEPD short course program in Traditional Medicines Development

4.6.3.2 Students Admission and Enrollment

Two (1) masters' student got admission and was enrolled for MSc. Trad Med. Development at the Institute. Four (3) other MSc and (4) PhD students continued with their studies at the Institute (Table 30).

Table 30: Students Admission, Enrollment and Achievements

Description	MSc. Trad. Med. Dev.	PhD
	2022/2023	2022/2023
Admission (New)	0	0
Enrolment/registration	2	1
Freezing	0	0
Postponement	0	0
Completed/graduated	1	0

4.6.3.3 Students Output and Performance

During the academic year 2022/2023, Traditional Medicine programmes successfully produced one (1) graduate with Master of Science (MSc.)

4.6.3.4. Short course training

Within the reporting period, fifty-four (54) Traditional Practitioners were trained as part of the Professional Training Development

4.6.4 Research Projects, Links and Publication

4.6.4.1. Research Links

A research link was established with Tanzania Research Institute on micropropagation of Hypoxis species (African Potatoes)

The link has been established between the Institute of Traditional Medicine and the Tanzania Forest Service on the propagation of *Prunus africana*

4.6.4.2. Research Projects

During the reporting period there are eight ongoing research projects as indicated below

S/No Ongoing Research project for 2021/2022academic year

- (i) Search for novel anti-TB compounds from selected edible and medicinal mushrooms in Southern Region of Tanzania by Michael Qwase, funded by DAAD
- (ii) Standardization of *Prunus africana* capsules Used for the Management of Benign Prostatic Hyperplasia in Tanzania
- (iii) Exploring Community Experiences and Practices on the use of Traditional Medicine in Management of COVID-19 in Tanzania, funded by the Amne Salim Covid-19 Research Fund
- (iv) Repurposing FDA/WHO approved pharmaceuticals as COVID-19 agent inspired by herbal medicine: An integrated computational and wet science study

- (v) Safety evaluation of crude extracts and isolation of antimicrobial compounds from selected Tanzanian medicinal plants used in the management of HIV and AIDS related conditions, funded by Sida-MUHAS
- (vi) Upgrading Instrumentation for Herbal Formulation Research Training Laboratory at MUHAS to Spearhead Industrialization
- (vii) Propagation of Hypoxis species using tissue culture technology
- (viii) Vulnerable Adolescence girls and Young women experiences of accessing PREPs in the selected Government care facilities in Tanzania. By Magreth T. Mwakilasa et al.
- (ix) Developing effective rodent control strategies to reduce disease risk in ecologically diverse rural landscapes by Dr. Kayombo and Magreth T. Mwakilasa et al.
- (x) Propagation of Hypoxis species at TARI
- (xi) Evaluation of P. falciparum Genetic Metrics for Monitoring Changes in malaria Transmission and Impacts of Interventions in mainland Tanzania. Dativa Pereus

4.6.5 Consultancies and Public Services

1. Formulation of mwani herbal capsules from Mwani for Hamisi Karenga
2. Capsule and cream formulation for fibroids and BPH for Dr Daniel Shadrack-Nelson Mandela University
3. Formulation of Placebo tablets and powder for Dr Sarah –KCMuCo
4. Stability studies for Organic capsule samples submitted by Elven Agri Company Limited
5. Formulation of herbal capsules and Stability studies for SUA-AESA RISE Project
6. Value Chain Assessment for the Wildmeat trade in Babati, Monduli and Arusha town, focusing on licensed game meat selling facilities and non-licensed outlets to determine gaps, and risks for illegal supply of meat and zoonotic diseases. Consultancy for TRAFFIC International
7. Dr. Mourice Mbunde participated in the expert working session technical meeting to align and translate One Health Guidelines organized by Prime Minister's Office Disaster Management department held at Regency Hotel in Singida region from 12th -16th June 2023.

4.6.6 Staff Development

Four staff were recruited at ITM

4.6.6.1 Training leading to degree award

- (i) Alphonse Ignas graduated his PhD on Traditional Medicine development at MUHAS
- (ii) Michael Qarse is on PhD programme at MUHAS
- (iii) Alexander Mwijage is on his PhD programme at MUHAS

4.6.6.2 Staff training attachments to other Institutions

- (i) Thomas Jackson went for Post-Doctoral in Sweden
- (ii) Ms. Zaituni Msengwa is on her PhD programe at the SUA

- (iii) Mr David Credo graduated his PhD at SUA
- (iv) Baraka Ernest is on PHD at UDSM
- (v) Cassian Mwinuka on Masters programme at UDSM
- (vi) Mariana Shayo is on her PHD at KCMC

4.6.6.3 Retirement

No staff retired at the reporting period.

4.6.8 Infrastructure Development and facilities procured

4.6.8.1. Infrastructure development

4.6.8.2. Facilities procured

- 1) Department of Natural Products, Formulation procured three (3) Rotor evaporators.
- 2) ITM through COSTECH fund (395M) enabled to procure, an HPLC machine, Oil Extractor Machine, and Concentrator
- 3) ITM received laboratory consumables procured by NIMR through funds given by the Ministry of Health worth 90M.
- 4) ITM through its internally generated fund procured an Automatic liquid Medicine filling machine for all liquid products through procurement units worth of 62M.



Figure 10: Automatic Liquid Medicine Filling Machine



Figure 11: Mixing Tanks and Liquid

4.6.9 Workshops/Seminars

4.6.10 External Examiners

The Institute received External examiner request from departments and recommended them for three years tenure as follows.

- (i) Department of Biological and Pre-Clinical Studies is Professor Ephrem Engidawork from College of Health Sciences Addis Ababa University.
- (ii) The Department of Natural Product and Formulations is Dr Joan John Eliona Munissi from the University of Dar es Salam.
- (iii) The Department of Medical Botany Plant Breeding and Agronomy is Dr Henry Joseph Ndangalasi from the University of Dar es Salaam.

4.6.11 Staff Recruitment

No staff was recruited in this year.

4.6.12 Visitors to the Institute

S/n	Name	Purpose for Visitation	Institution
1	Nitin Menon	To seek research collaboration	COSTECH
2.	Kyayonka Marco Kanan	To seek collaboration on herbal medicine	
3.	Joseph Ndovu	Meeting between COSTECH and ITM to discuss on the implementation of the project awarded by COSTECH	
4.	Adeline Ajuaye		
5.	Carlson Dulle		
6.	Selina Mchau		
7.	Dr. Chanasa Mpelumbe	To seek research collaboration	
8.	John E. Olsen	To seek research collaboration	Copenhagen Nitin Menon
9	John E.Oslen	Collaborative Supervision	Denmark
11.	Benjamin S. Elias	To seek collaboration on herbal medicine	COSTEC
12.	Joseph Ndovu		

4.7 Directorate of Planning, Development and Investment

4.7.1 Introduction



Mr. Jamal G. Brown

**Director, Planning,
Development and
Investment**

The Directorate of Planning, Development and Investment Muhimbili Campus was established in 2013 as part of improving efficiency and functions at the University. In 2015 the name of the Directorate was changed from Directorate of Planning and Development to Directorate of Planning and Investment and in 2022 the name changed again from

Directorate of Planning and Investment to Directorate of Planning, Development and Investment which includes three departments namely; Planning, Investment and Resource Mobilisation.

The Directorate continued with the responsibility of coordinating the development and monitoring of the University strategic plan. It ensures that all Schools and Directorates develop strategic actions plans in line with the University Medium Term Strategic Plan. It is also responsible for monitoring and coordinating implementation of the Annual Action Plan (AAP) and reporting on progress of its Implementation. The Directorate also coordinate development of university budget.

During the review period the Directorate promoted, engaged and monitored investment activities at the University for the purpose of income generation and growth. The directorate focused on developing MUHAS investment portfolio through identification of potential investment avenues and improving productivity on already available investments.

4.7.2 Promotion of University Activities

During the period under review MUHAS through the DPDI was invited by TANTRADE but was not participated in the 47th Dar es Salaam International Trade fair which was started on 28th June, 2023 and ended on 13th July, 2023 due to dis approval of Participation request, the funds allocated for this activity was reallocated for purchase of electronic and ICT device for registry. During the reporting period MUHAS participated in the 18th Higher Education Institution Exhibitions organized by TCU, which took place from 17th to 22nd July 2023 at Mnazi Mmoja.

4.7.4 Engagement of Real Estates Developers for Development of Various MUHAS Lands

During the period under review MUHAS through the DPDI had plans for the development of Uporoto plot. During the reporting period, the University has already developed business plan for establishment of Polyclinic at Uporoto. Procurement of of consultancy services for design and supervision of uporoto

building, construction of proposed annex building, perimeter fence and car parking at plot No. 42 ursino estates, uporoto for the establishment of MUHAS health polyclinic (phase 1) is in final stages. For Bagamoyo the University through DPDI has managed to coordinate the renovation of two staff houses, which currently one house is rented to VITAA project and the second house the renovation completed and the construction of storm water Channel at BADEKO also completed.

In order to expand the Investment, the Directorate of Planning, Development and Investment Agreed to recommend to the management to initiate the Construction of the Conference Facilities and Rest House like Kalenga for renting at BADEKO area. In year 2023/2024 the university has planned to continue with renovation of staff houses in Phases and the budget has set aside, the DPDI through Directorate of Estate is in Process of preparing BOQ for the renovation of one staff house at Bagamoyo, also the DPI has Renovated the Mazengo Ground house, procured and installed AC's, Furniture, Electrical Equipment and fans. For promoting the customers for Kalenga House, the DPDI has made the review of the price in comparison with nearby apartments and submitted to the Managements for approval and was approved.

4.7.5 Phase 1 Construction of Academic and Support Facilities at Mloganzila Campus

Construction of Phase 1 of Academic and Support facilities at Mloganzila Campus in order to double students' intake was initiated in September, 2017. The one year and six months' contract for construction works were assigned to Tanzania Building Agency (TBA) by the Ministry of Education Science and Technology (MEST). The project involves construction of one lecture theatre, cafeteria, two blocks student hostels, one lecture theatre, four seminar rooms, one anatomy and pathology laboratories, staff offices and library. The construction progress is almost stagnant no works are ongoing at site.

4.7.7 Establishment of the East African Centre of Excellence in Cardiovascular Sciences

i) Construction of multipurpose building for CoECVS at Mloganzila

Phase one Construction of multipurpose building for CoECVS at Mloganzila was completed and in use, at the current the Correction of snags are ongoing from submitted list whereby; cracks internal walling, doors alignment, Air conditioning maintenance, roofing and floor maintenance were corrected

ii) Staff in Cardiovascular Sciences and collaboration with other Institutions

Faculty training to operationalize East Africa centre of excellence for cardiovascular sciences, Four PhD candidates are progressing well with their studies.

iii) Curricula development for Masters, Super-specialty and PhD training programmes in the fields of cardiovascular sciences (CVS)

Development of Curriculum for Masters, Super-specialty and PhD training programmes in the field of Cardiovascular Sciences for Skills and Technology transfer, five curricula out of proposed 7 were developed and in use remaining; two are in the processes which are MSc. Public Health in Cardiovascular Sciences and MSc. Paediatric Cardiology.

iv) Supply and installation of goods in the building

Almost 100% of the furniture were supplied and installed during reporting period. About 100% of the ICT equipment were supplied and installed during reporting period. Supply and installation of Laboratory equipment are ongoing. A proportion of 30% of the equipment was received during reporting period. Chairs in the auditorium have been supplied and installed by 100%. Podium and front table are being manufactured to be installed in the auditorium.

v) Support EAC Regional Integration agenda in Higher Education to respond Labour Market needs.

Two meetings of Steering Committee meetings of the East Africa Centres of Excellences were convened and attended respectively in Kilimanjaro – Moshi, Tanzania in April, 2023 and Bujumbura, Burundi in June, 2023.

vi) Preparations of Phase Two of the Project

Phase II project Concept note that were submitted to MoFP by PS MoEST received positive results with comments from MoFP. A team to prepare fully proposal for phase II have been constituted and started working on 27th June, 2023.

VII) Implementation of the HEET project

Procurement of consultancy for ESIA for Mloganzila Campus, Stakeholders consulted and ToR for ESIA developed, TOR has been approved by WB and has received No Objection. Expression of interest developed and approved. Develop Terms of Reference (ToR) for consultancy service for design and construction for Mloganzila Campus, TOR has been approved by WB and has received No Objection. Expression of interest developed and approved.

Develop Terms of Reference (ToR) for Procurement, Finance and infrastructure development specialist, TOR developed and approved. Expression of interest approved, as advertisement of these specialists are already out. To develop Monitoring and evaluation plan for the implementation of HEET Project at MUHAS, Monitoring and evaluation plan developed. To procure office equipment office and furniture for Project Monitoring and management, Procurement process is ongoing. Acquiring of land for construction of campus at Kigoma, 75-acre of land for establishment of new campus at Kigoma was acquired with title deed No. 4202KGLR. Develop Terms of Reference (ToR) for Consultancy Services of Social and Environment Impact Assessment (ESIA) and consultancy service for design and construction for Kigoma Kampus, Terms of Reference (ToR) for both Consultancy Services developed and submitted to WB for review and approval.

Updating curriculum and introducing innovative pedagogical methodologies, Stakeholders were engaged and tools for tracer study developed. Data collection for some regions had started and ongoing. Building functional linkages with the private sector/industry, Guidelines for appointing members to the Industrial Advisory Committee (IAC) was received from MoEST. Potential IAC members identified and appointment letter for IAC members was prepared await confirmation of the proposed members. Procure vehicle for monitoring and follow-up of students and faculty in the private sector, Permit obtained from the Prime minister's office and No Objection from WB obtained on 02nd December, 2022. Training of four (4) educational technologist (ICT staff), Two ICT staff trained (four weeks) and certified during reporting period on Digital learning and teaching technology at NITTTR, Chennai India.

4.8 Directorate of Postgraduate Studies

4.8.1 Introduction



The Directorate of Postgraduate Studies (DPGS), 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, DPGS processed admissions of postgraduate students in various programmes, reviewed postgraduate proposals and processed examination results.

Dr. Doreen Kamori
Acting Director of
Postgraduate Studies

4.8.2 Enrolment into Postgraduate Programmes

4.8.2.1 PhD Degree Programmes.

DPGS continues to enroll students into PhD programmes. During academic year of 2022/2023, 25 students were granted full PhD registration. Together with 41 existing students, this makes the total number of 66 PhD students. Among them, 25 are females.

4.8.2.2 Postgraduate Selection

The Directorate through the Joint Postgraduate Selection Committee under the Directorate of Postgraduate Studies met to recommend first round and late round applicants for postgraduate studies for the year 2023/2024. 985 applicants were selected during the applications (Table 31).

Table 31: Summary of recommended applicants for postgraduate studies for the year 2023/2024

School /Institute	Selected students
College of Medicine	461
School of Pharmacy	38
School of Dentistry	21
School of Nursing	93
School of Public Health and Social Sciences	369
Institute of Traditional Medicine	03
Total	985

4.8.2.3 Master Degree Programmes Registration.

During academic year 2022/2023, a total number of 1,185 students were enrolled in Master degree programme in five Schools and one Institute,

Table 32 below summarizes the number of Master degree students enrolled by different Schools.

Table 32: Summary of enrolment of Postgraduates for Academic Year 2022/2023

College/School/Institute	Male	Female	Total
Medicine	418	285	703
Pharmacy	13	8	21
Dentistry	25	9	34
Nursing	25	52	77
School of Public Health and Social Science	173	174	347
Traditional Medicine	0	3	3
Total	654	531	1,185

4.8.3 Students Research Proposals

DPGS facilitated the review of Master and PhD proposals for ethical clearance in collaboration with the Directorate of Research and Publications. A total of 165 Postgraduate students' research proposals were reviewed.

4.8.4 Examinations results

The Directorate of Postgraduate Studies through Senate Higher Degrees Committee (SHDC) Processed University Examinations. The directorate through the senate higher degree committee (SHDC), received and recommended for approval of March 2023 University Examination results in June, 2023 for semester 1, 3, and 5 as shown in table 33 below:

Table 33: Summary of the students' results for the March 2023 examination

S/N	SEMESTER 1,3 AND 5	College of Medicine	School of Pharmacy	School of Dentistry	SPHS S	School of Nursing	ITM
1	Number of candidates appeared for examination	702	23	31	229	85	3
2	Number of Candidates passed	580	20	28	189	62	1
3	Number of Candidates failed	111	3	3	39	22	1
4	Number of Candidates postponed/freeze examination	10	1	0	0	2	0
5	Incomplete examination results	0	0	0	0	0	0
6	Number of candidates' examination results withheld	0	0	0	0	0	0
7	Number of candidates who absconded	4	1	0	0	0	1

4.8.5 Postgraduate Graduates.

The 16th MUHAS graduation was held on 3rd December 2022. A total of 455 candidates graduated in various Postgraduate programmes; Seven (7) candidates were awarded PhD degree as shown in table 34.

Table 34: Summary of the postgraduate graduates in the year 2022 by gender

S/N	School/Institute/Programme	Male	Female	Total
1	PhD	5	2	7
2	College of Medicine	167	88	255
3	School of Dentistry	4	4	8

4	School of Pharmacy	4	6	10
5	School of Public Health and Social Sciences	64	62	126
6	School of Nursing	17	31	48
7	Institute of Traditional Medicine	1	0	1
	Grand Total	262	193	455

4.9 Directorate of Research, Publications and Innovation (DRPI)

4.9.1 Introduction



Dr. Nahya Salim Masoud
Acting Director of Research
Publications and Innovations

The Directorate of Research, Publications and Innovations is the University's hub for coordinating research, publications and innovations. The main activities under the directorate are to guide and promote conduct of research and dissemination of evidence from within and out of the University. Moreover, the directorate works to strengthen research infrastructure, build capacity of faculty, scientists, students, and MUHAS collaborators and affiliated, to achieve the mission and vision of the University. To this end, the directorate develop and update research guidelines, policies, and standard operating procedures; conduct and facilitate research training for various stakeholders at the University and beyond; strengthen quality of laboratories and research environment; maintain research integrity; manage pre- and post-award for sponsored projects; and ensure innovations and discoveries are protected to benefit the researchers, institution, and the nation.

4.9.2 Organizational matters

The University revised its organizational structure leading to formation of new units. The Directorate of Research and Publications was one of the units whose structure was revised leading to approval of units: (i) Institutional Review Board (IRB), (ii) Research Development (iii), Office of Sponsored Projects (OSP), and (iv) Intellectual Property Unit (v) Innovations. The Directorate has Administrators, one serves at the OSP, another one at IRB, another at the Tanzania Medical Journal (TMJ) and also Innovations Office. The Directorate has two junior research fellows who are serving at the RDU and IPU, as well as other DRPI's functions.

4.9.3 Capacity Building

MUHAS through Sida support developed curricula for several research courses. These courses are geared to strength research capacity among scientists at the university and beyond in order to increase diversity, scope, quality and number of research outputs. In the reporting period, six short courses on 1) Responsible conduct of research, 2) Basic Qualitative Research, 3) Grant writing, 4) Clinical Pharmacokinetics, 5) Innovation and

Entrepreneurship in Health, 6) Advanced Qualitative Research were delivered by faculty and scientists at MUHAS and at partner Tanzania and Swedish Institutions. Recognizing the challenge there is in disseminating research findings, the university conducted two important workshops on 1) Policy brief writing and 2) Manuscript Development. Lastly, in an effort to steer and groom innovation mindset mainly among students, the first ever innovation bootcamp was conducted during the reporting period. That plus other initiatives are geared to complement ongoing university's efforts to establish and become the hub of providing innovative solutions to address health challenges. The attendance of the people in the training keeps on increasing. This implied increase in interests in the courses that are administered at the institution.

4.9.4 Development of Policy and Guidelines

4.9.4.1 Guidelines on Conflict of Interest and Research Integrity

Muhimbili University of Health and Allied Sciences (MUHAS) has a responsibility to ensure that research conducted by its staff, students and collaborators conforms with the highest possible standards of integrity. The main objective of these guidelines is to provide clear procedural guidelines to fairly dealing with conflict of interest in research and ensure research integrity for all research activities the university is associated with.

4.9.4.3 MUHAS Biorepository Guidelines

Students and faculty at MUHAS are engaged in number of research projects including clinical trials, surveys among others that involve the use of biological samples and biodata. The MUHAS Senate in its 57th Meeting held on 14th November, 2018 approved the establishment of central biorepository for handling all biodata emanating from such projects. A developed MUHAS Biorepository Guidelines serves as a framework to guide establishment, maintenance and use of biorepository for bio specimens and biodata collected by both MUHAS students and faculty. It was approved by the University Council on 7th August, 2020 in its 57th meeting. The MUHAS Biorepository was official launched at Mloganzila Centre of Excellence on 02nd October, 2023 by the Swedish Ambassador Ms. Charlotte Ozaki Macias.

4.9.4.4 Research Data Sharing Policy

As part of the University's commitment to academic excellence, this document outlines key policy issues and procedures for effective data management and sharing. The main objective of this policy is to lay down principles and procedures for MUHAS to share research data and provide appropriate protection for the shared data while safeguarding the intellectual property rights of data generators. This policy was approved by the University Council at its 57th meeting.

4.9.4.5 Research Agenda

MUHAS as a premier health training institution collaborates with various stakeholders to conduct research that address challenges of national interests and that are in line with the existing National Research Agenda. MUHAS Research Agenda defines specific identified research goals and organizing principles around which to work to achieve these goals. It also aims to create linkage among internal and external stakeholders to attain these goals.

4.9.5. Research Management Activities

4.9.5.1 Research Development Center

The established a research development center at CHPE has been receiving researchers from MUHAS and collaborators from within the country and outside the country. The researchers and collaborators have been using this center for research activities effectively for short research meetings and as a place of research work.

4.9.5.3 Medical Journals

A. Tanzania Medical Journal

Tanzania Medical Journal (TMJ) is managed by the Muhimbili University of Health and Allied Sciences. The journal is an East-African Centric, peer-reviewed journal with significant emphasis in supporting the dissemination of medical knowledge in Tanzania and beyond. The journal aims to be scientifically reliable in improving all aspects of medicine. To contribute to advances in medical and scientific knowledge, TMJ publishes papers on original scientific research, short communications, case reports, editorials and review articles, in any branch of medical science. During the reporting period, TMJ published three issues (comprising of 36 articles). The issues comprised of articles of original research, case reports and editorial sections from across the region and beyond.

B. Tanzania Dental Journal

The Muhimbili University of Health and Allied Sciences has a Memorandum of Understanding to manage the Tanzania Dental and Health Journal (TDHJ), which is owned by the Tanzania Dental Association. The journal publishes articles in the field of oral health and related fields in form of original research work, reviews, short communications, letters, and case reports. During the reporting period, the journal TDHJ published one special issue (comprising of four articles).

4.9.5.4 Research Capacity Strengthening Grants

The university has striven to create conducive research environment for her scientists especially the early career researchers/junior faculty to implement their research projects by providing them with Seed grants 6 Cohort. The funding for their projects is provided by Sida, and in the reporting period **TZS 279,560,500 /=-** were awarded to 20 junior faculty between October 2023 and October 2024. Their projects are now in different stages of implementation.

4.9.5. MUHAS Research and Ethics Committee.

The Directorate has procured software for plagiarism checkup. The University signed Master Registration Agreement with Turnitin LLC to provide the services of checking plagiarism of proposals submitted for researches. The payment has been completed and the services has started. The Ethics Committee is monitoring the progress of clinical trials implemented by faculty and collaborators at the University. In the academic year

2022-2023, a total of 498 proposals were reviewed, discussed and granted ethical clearance. They included both postgraduate and undergraduate students' proposals.

4.9.5.6 Sponsored Projects

Research conducted at the University continued to be largely funded by foreign funders. In the period of July 2022 to June 2023, the University had 130 active international sponsored projects; out of which 34 were new projects. Project funds awarded during the financial year were TZS 23,183,898,625.30. The overheads retained by the university as institutional cost amounted to TZS 2,228,644,144.08

4.9.6 Research Dissemination

In order to create impacts of building capacity among students and faculty on research dissemination, the university has created and is engaged in different platforms where scientists both at the institution and other parts of the world can share their research findings. These include; dissemination symposia, MUHAS affiliated medical journals, scientific conferences among others.

1. Between 10th and 11th November 2022, the Ministry of Health through MUHAS and the NCDs Control and Prevention Program conducted the 4th National NCDs Scientific Conference at Mwanza. The event involved over 700 participants from different parts of the world who had presentations and discussions focused on the main theme, ***“Enhancing Scalability and Sustainability of preventive and Integrated, accessible, quality of Non-communicable Diseases care in Tanzania”***.
2. In March 26th 2023, the Amne Salim Covid 19 Research Funds Disseminations was conducted was hosted at the university. Eight (8) researchers were awarded funds to conduct the COVID 19 research. The guest of honor in this dissemination was the Hon. His Excellency, the President of Zanzibar, Hon. Dr. Hussein Mwinyi.
3. The 10th University wide dissemination symposium was conducted on 17th May, 2023 and focused to highlight the burden of hematological malignancies, and recommend strategies necessary to improve the quality of life among sufferers of these diseases. Over 600 stakeholders attended the event either virtually or physically. The main theme was **“Combating Antimicrobial Resistance: Leveraging Evidence-Based Practice to Support National Action Plan 2023-2028”**.
4. The Eastern Africa Fogarty Fellows Symposium and Workshop was held from 25 – 26 May 2023 in Dar es Salaam, Tanzania hosted by the Muhimbili University of Health and Allied Sciences (MUHAS). The symposium brought together faculty, researchers, scientists, and fellows from more than 17 different countries (including, USA, Uganda, Kenya, Tanzania, Ethiopia, Zambia, Malawi, Rwanda, Zimbabwe, and Mozambique).
5. From 23rd up to 28th April, 2023 MUHAS participated in MAKISATU Competition at Dodoma

6. The 11th MUHAS Scientific Conference University was conducted on 22nd – 23rd June, 2023. The event involved over 800 participants from different parts of the world who had presentations and discussions focused on the main theme “**the role of scientific evidence and innovations in enhancing resilient health systems in addressing global public health challenges**”.

4.9.7 Networking

The Directorate continued networking with local and international research institutions. Moreover, the Directorate has continued coordinating research collaborations for ongoing research projects.

4.10 Directorate of Undergraduate Education

4.10.1 Introduction



The Directorate of Undergraduate Education is responsible for coordinating and managing all applications for undergraduate admissions, teaching and learning, managing the Central teaching and Examinations timetables. It is also responsible for managing curricula revisions and identification of new areas of curricula development and processing Undergraduate University examination results through SUEC and recommend them to SENATE for approval.

Dr. Joseph Sempombe
Director, Undergraduate
Education

4.10.2 Main Functions of the Directorate

To support and promote excellence and professionalism in training of human resources for health that lead to the attainment of equitable socioeconomic development for the Tanzanian community and beyond.

4.10.3 Implementation of New Competency Based Curricula for Undergraduate Programmes

4.10.3.1. Bachelor of Science in Audiology and Speech Language Pathology

During the academic year 2022/2023, The Directorate of Undergraduate Education managed to process through SUEC the new Undergraduate program namely the Bachelor of Science in Audiology and Speech Language Pathology (BSc. ASLP). This program has been accredited by the Tanzania Commission for Universities (TCU) and will be implemented in the 2023/2024 academic year.

4.10.3.2. Bachelor of Science in Occupational Therapy

During the academic year 2022/2023, The Directorate, also managed to process through SUEC the new Undergraduate program namely the Bachelor of Science in Occupational Therapy (BSc. OT). This program has also been accredited by the Tanzania Commission for Universities (TCU) and will be implemented in the 2023/2024 academic year.

4.10.4 Undergraduate Students Admission for the Academic year 2022-2023

During the year 2022/2023 the Directorate of Undergraduate Education coordinated applications and selection of both direct and equivalent undergraduate applicants for various programmes as shown in table 34. A total of 835 students were selected of which 789 (94.5%) students were registered. The Directorate also processed the applications of both Diploma and Advanced Diploma programmes for various programmes. A total number of 196 students were selected and among them 126 (62.2%) students were registered. Failure to pay tuition fees for both Undergraduate and Diploma students continued to be a challenge for students to retain their admissions and some requested for deregistration or froze studies due to failure to secure financial support (sponsorship) and loans from Loans' Board (HESLB).

Table 35: Summary of Applications and Selection of Undergraduate Programmes for Academic Year 2022/2023

S/n	Program	Total No. of Applicants	Total No. of Admitted Applicants 2022/2023	Registered Students
1	Doctor of Medicine (MD)	5032	235	235
2	Bachelor of Biomedical Engineering (BBME)	1220	25	24
3	Bachelor of Science in Diagnostic and Therapeutic Radiography (BSc Rad)	2119	33	31
4	Bachelor of Medical Laboratory Science (BMLS)	3056	108	103
10	Doctor of Dental Surgery (DDS)	3766	69	64
11	Bachelor of Pharmacy	5170	79	80
12	Bachelor of Science in Environmental Health Science	1642	98	89

13	Bachelor of Science in Nursing	2734	87	77
14	Bachelor of Science in Nurse Anaesthesia	783	50	45
15	Bachelor of Science in Midwifery	840	21	15
16	Bachelor of Science in Physiotherapy	1178	30	26
	TOTAL		835	789

Table 36: Summary of Diploma and Advanced Diploma Programmes admission 2022/2023

S/n	Program	Number of Applicants	Total No. of Admitted Applicants 2022/2023	Registered Students
1	Diploma in Diagnostic Radiography	1293	35	31
2	Diploma in Diagnostic Radiography Evening	277	45	37
3	Diploma in Environmental Health Science- Dar es Salaam	833	75	37
4	Diploma in Environmental Health Science - Dar es Salaam- Evening	136	15	3
5	Diploma in Orthopaedic Technology	767	11	3
6	Advanced Diploma in Dermatovenereology - ADDV KCMC		15	15
	TOTAL		196	126

The discrepancy between selected and registered Undergraduate and Diploma students indicated above is due to various reasons including inability to pay tuition fees, missed loans from loan Board (HESLB), or transfer to other colleges/universities, lack of permission from employer etc. We have also noted that most of unregistered admitted students have no funds to enable them register and sustain university life.

4.10.4 Undergraduate and Diploma students' enrollment 2022/2023

During the academic year 2022/2023, the Directorate administered the enrollment of 3,371 students into various programmes whereby 2,996 are Undergraduate students and 375 Diploma students. Out of 3,371 students enrolled, 928 (27.5%) were females.

16th MUHAS Graduation Ceremony

During the 16th MUHAS Graduation ceremony a total of 1,045 students graduated in various Diploma and

Undergraduate programmes, of which 365 students (34.9%) were females. The graduates according to degree programmes included; - Doctor of Medicine, MD (201), Bachelor of Pharmacy, BPharm (70), Bachelor of Medical Laboratory Sciences, BMLS (152), Doctor of Dental Surgery, DDS (42), Bachelor of Nursing, BScN (62), Bachelor of Science in Environmental Health, BSc EHS (90) and Bachelor of Science in Radiation Therapy Technology, BScRTT (31). The Diploma graduates included: - Diploma in Nursing, DN (88), Diploma in Medical Laboratory Sciences, DMLS (91), Diploma in Environmental Health Sciences, DEHS (71), Diploma in Diagnostic Radiography, DDR (66), Diploma in Orthopaedic Technology, DOT (11), Diploma in Pharmaceutical Sciences, DPS (55) and Advanced Diploma in Dermatovenereology, ADDV (13).

4.11 Directorate of Information Communication and Technology

4.11.1 Introduction



**Dr. Joseph
Elias Mbowe
Director, ICT**

The Directorate of ICT is progressing with the integration of information and communication technologies (ICT) into all the University's core functions and operational as well as management activities. The university through the directorate has maintained and continue to invest in various ICT infrastructures, systems, and services.

4.11.2 Use of Information and Communication Technology

Information and Communications Technology (ICT) nowadays has a big role in teaching and learning activities globally. The Management of Muhimbili University of Health and Allied Sciences continued to support the integration of ICT into its core functions namely; teaching, research and consultancy services. In the FY 2022/2023, the MUHAS has improved ICT Infrastructure, Systems and services as follows;

- a) Acquired ICT infrastructure such as servers and network accessories including switches, routers, wireless device, etc.
- b) Upgraded Internet services from 180Mbps to 530Mbps.
- c) Purchased various ICT Equipment; Desktops, Laptops, printers, scanners for both technical and support staff.
- d) Upgraded Digital Learning platforms and Students Academic Information System (SARIS)
- e) Reviewed IT governance and standards operating procedures to improve ICT services delivery.

- f) Trained abroad two ICT staff in digital learning platforms.

4.11.3 ICT Infrastructure.

Our ICT infrastructure comprises various ICT Equipment, Firewalls and modern servers which use VMware technologies to operate multiple virtual machines on demand basis. The backbone infrastructures run on Fiber optic technology inter-connected with active hardware and software to operate systems and networks for communications services as well as support applications, digital content, and e-services.

In FY 2022/2023, the MUHAS acquired 3 servers, 1 Meraki Firewalls, VMware licenses, 7 switches (i.e. core and distribution) to strengthen our ICT infrastructure.

4.11.4 Management of Information Systems.

The ICT Directorate has continued to foresee and manage various ICT Systems namely; Students Records Academic Information System (SARIS 2), Online Application Systems, Library Information Systems, e-Learning (Moodle) platform, Institutional Repository System, Government Integrated Financial System (MuSE), EPICOR, Biometric Attendance Register System and Contract Inventory Management System. In order to improve dental medical services by using information technologies, in the FY 2022/2023 the MUHAS has introduced the AfyaPlus Dental System (ADS) to capture, handle and maintain patient data in electronic format. The system allows users from registration department, nursing, doctors, radiology, laboratory and pharmacy to attend patient and prescribe medication electronically. Also, under HEET Digitalization Project, the Directorate is implementing Electronic Office Management system and Enterprise Resource Planning (ERP) System which will enable MUHAS to support;

- a) Human Capital Management including Staff portal and appraisal,
- b) Faculty and Students to have Central Time Table for optimal resource allocation and utilization,
- c) Inventory of all Acquired ICT infrastructure such as servers and network accessories including switches, routers and other ICT devices in a centralized database.

4.11.5 ICT Services Support and Maintenances.

The use of ICT as enabler to various core business and the growing adoption of multiple devices at MUHAS continues to shape our ICT support services. The Faculty and Students' expectations and demands are increasing and becoming very complex every day. To meet these expectations and deliver quality services the directorate has re-evaluated its service delivery mode and solutions to cater for its internal and external users. Various ICT

Officers have been stationed to various building/block(s) to provide quick service and foresee all technical fault at proximity client-distance. The use of online Job Card has been strengthened to ensure all problems attended by technicians are sorted, evaluated and mitigated by using computer system. The Maintenance of ICT Equipment has been crucial due to rapidly change on technologies and increase of ICT Equipment and devices such as servers, routers, switches and wireless devices. In FY 2022/2023, the Management trained 5 staff on advanced techniques for systems administrations and maintenance of ICT Equipment.

4.11.6 ICT Staff Recruitment, Practical Training and Internship.

Currently, the directorate has 19 staff with their technical experts dwelling in systems administration, ICT infrastructure, Systems and Business Analysts. Since 2017, the Recruitment of new staff has been big challenge. However, in February - September 2023, the directorate has received 2 ICT experts transferred to MUHAS from other government institution.

The Directorate has continued to offer Practical Training for students from Higher learning Institutions. In the FY 2022/2023, we have received 10 students for Practical Training and 4 ICT graduates volunteering as internship ICT professionals.

4.11.7 Research and Consultancy activities.

The ICT Directorate continued to collaborate with different partners in conducting research and Consultancy activities. The following research and consultancy projects were conducted;

- a) Exploring digital platforms and the connected data flows for early research data translation. The MUHAS collaborated with the Center for Global Health, Department of Neurology, Technical University of Munich, Germany; the National Institute of Medical Research (NIMR), Muhimbili Medical Research Centre under the CYSTINET-Africa project.
- b) “Diabetes Compass”: An initiative to improve the quality of diabetes care in Tanzania through innovative digital solutions. The MUHAS has collaborated with World Diabetes Foundation (WDF), Tanzania Diabetes Association (TDA), the Ministry of Health (MOH), President’s Office – Regional Administration and Local Government (PORALG) and HISP Tanzania.
- c) Strengthening MUHAS Library Services in collaboration with the Stockholm University (DSV/SPIDER), Sweden.

- d) Development of Curriculum for Online Masters in Health Data Analytics in collaboration with Neu-Ulm University of Applied Sciences, Neu-Ulm, Germany; University of West Cape in South Africa.
- e) Capacity building on digital transformation in the Tanzania health sector under the Sweden-Africa Digital Health Transformation Centre in collaboration with LM International and Mälardalen University, Sweden.
- f) Development of Blueprints for a Digitalized Primary Health System with a Strengthened Connection to the Community Health Program in Zanzibar under D-tree International and Ministry of Health Zanzibar.
- g) Development of Guidelines for Digital Health Transformation in Zanzibar under Ministry of Health
- h) Mapping digital transformation in 2035: A scoping study to identify the impacts of converging technology on development under the International Development Research Centre (IDRC) Canada.
- i) Evaluating the potential for a comprehensive digital client feedback platform to strengthen the healthcare system in collaboration with the Ministry of Health, PO-RALG, and Afya Pamoja.
- j) Establishment of machine learning datasets for better healthcare outcomes: A focus on rabies. The project is conducted by Ifakara Health Institute in collaboration with Muhimbili University of Health and Allied Sciences (MUHAS) and the University of Glasgow, UK.

4.11.8 Digital Health and Innovation Hub.

In the FY 2022/2023, the Directorate has organized the following activities;

- a) MUHAS Annual Digital Health Week (MADWI) and Tanzania Digital Health and Innovation Forum on November 2022.
- b) Digital health transformation workshop on February, 2023 in Zanzibar and Mainland.

4.11.9 ICT Challenges

The ICT Directorate has limited staff in the area of programming and security. This challenge has hindered the directorate to meet timely the user expectation for software upgrade and development in a secured manner. Moreover, the advancement of technologies on health sector, has created a necessity for digital health practitioners at MUHAS and globally. While technology is advancing very fast, the MUHAS has inadequate funds to acquire modern technologies and equipment to align with the rapidly changing technologies. The

MUHAS Management has strived to re-allocate funds from donor funded project especially HEET Project to strengthen the ICT Infrastructure and digital technologies so as to improve our service delivery.

4.11.10 Use of Information and Communication Technology

Information and Communications Technology (ICT) nowadays has a big role in teaching and learning activities globally. The Management of Muhimbili University of Health and Allied Sciences continued to support the integration of ICT into its core functions namely; teaching, research and consultancy services. In the FY 2022/2023, the MUHAS has improved ICT Infrastructure, Systems and services as follows;

- (a) Acquired ICT infrastructure such as servers and network accessories including switches, routers, wireless device, etc.
- (b) Upgraded Internet services from 180Mbps to 530Mbps.
- (c) Purchased various ICT Equipment; Desktops, Laptops, printers, scanners for both technical and support staff.
- (d) Upgraded Digital Learning platforms and Students Academic Information System (SARIS)
- (e) Reviewed IT governance and standards operating procedures to improve ICT services delivery.
- (f) Trained abroad two ICT staff in digital learning platforms.

4.11.11 ICT Infrastructure.

Our ICT infrastructure comprises various ICT Equipment, Firewalls and modern servers which use VMware technologies to operate multiple virtual machines on demand basis. The backbone infrastructures run on Fiber optic technology inter-connected with active hardware and software to operate systems and networks for communications services as well as support applications, digital content, and e-services. In FY 2022/2023, the MUHAS acquired 3 servers, 1 Meraki Firewalls, VMware licenses, 7 switches (i.e. core and distribution) to strengthen our ICT infrastructure.

4.11.12 Management of Information Systems.

The ICT Directorate has continued to foresee and manage various ICT Systems namely; Students Records Academic Information System (SARIS 2), Online Application Systems, Library Information Systems, e-Learning (Moodle) platform, Institutional Repository System, Government Integrated Financial System (MuSE), EPICOR, Biometric Attendance Register System and Contract Inventory Management System. In

order to improve dental medical services by using information technologies, in the FY 2022/2023 the MUHAS has introduced the AfyaPlus Dental System (ADS) to capture, handle and maintain patient data in electronic format. The system allows users from registration department, nursing, doctors, radiology, laboratory and pharmacy to attend patient and prescribe medication electronically. Also, under HEET Digitalization Project, the Directorate is implementing Electronic Office Management system and Enterprise Resource Planning (ERP) System which will enable MUHAS to support;

- (a) Human Capital Management including Staff portal and appraisal,
- (b) Faculty and Students to have Central Time Table for optimal resource allocation and utilization,
- (c) Inventory of all Acquired ICT infrastructure such as servers and network accessories including switches, routers and other ICT devices in a centralized database.

4.11.14 ICT Services Support and Maintenances.

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The Directorate has continued to offer Practical Training for students from Higher learning Institutions. In the FY 2022/2023, we have received 10 students for Practical Training and 4 ICT graduates volunteering as internship ICT professionals.

4.11.16 Research and Consultancy activities.

The ICT Directorate continued to collaborate with different partners in conducting research and Consultancy activities. The following research and consultancy projects were conducted;

- (a) Exploring digital platforms and the connected data flows for early research data translation. The MUHAS collaborated with the Center for Global Health, Department of Neurology, Technical University of Munich, Germany; the National Institute of Medical Research (NIMR), Muhimbili Medical Research Centre under the CYSTINET-Africa project.
- (b) “Diabetes Compass”: An initiative to improve the quality of diabetes care in Tanzania through innovative digital solutions. The MUHAS has collaborated with World Diabetes Foundation (WDF), Tanzania Diabetes Association (TDA), the Ministry of Health (MOH), President’s Office – Regional Administration and Local Government (PORALG) and HISP Tanzania.
- (c) Strengthening MUHAS Library Services in collaboration with the Stockholm University (DSV/SPIDER), Sweden.
- (d) Development of Curriculum for Online Masters in Health Data Analytics in collaboration with Neu-Ulm University of Applied Sciences, Neu-Ulm, Germany; University of West Cape in South Africa.
- (e) Capacity building on digital transformation in the Tanzania health sector under the Sweden-Africa Digital Health Transformation Centre in collaboration with LM International and Mälardalen University, Sweden.
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- (g) Development of Guidelines for Digital Health Transformation in Zanzibar under Ministry of Health
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- (j) Establishment of machine learning datasets for better healthcare outcomes: A focus on rabies. The project is conducted by Ifakara Health Institute in collaboration with Muhimbili University of Health and Allied Sciences (MUHAS) and the University of Glasgow, UK.

4.11.17 Digital Health and Innovation Hub.

In the FY 2022/2023, the Directorate has organized the following activities;

- (a) MUHAS Annual Digital Health Week (MADWI) and Tanzania Digital Health and Innovation Forum on November 2022.
- (b) Digital health transformation workshop on February, 2023 in Zanzibar and Mainland.

4.12. Directorate of Library Services

4.12.1 Introduction



Prof. Alli Mcharazo
Director, Library
Services

This annual report provides an overview of the Libraries' events, programmes, and accomplishments performed during the 2022/2023 academic year. It also explains various library services provided in supporting the university's core function of teaching, learning, research, and consultancy services and how the Library responded to students' and faculty research needs. During the period under review, the Directorate of Library Service (DLS) conducted various activities and services including collection development, research support services, bibliographic data entry, short course training for faculty and students on e-resources, evidence-based practice, Systematic Reviews and Scientific Writing. The DLS also taught the ICT and Communication Skills course (IT110) to all MUHAS undergraduate students. These activities and services have been described in subsequent sections.

4.12.2 Collection Development

4.12.2.1 Acquisition of Books

During the period under review, the Library received new library reading materials from different sources as shown in Table 37 below.

Table 37: Acquired library materials from different sources

Type of item	Source	Quantity
	Book Aid International	1309
	Donation	35
Newsletter	MUHAS	5
Dissertation and Thesis	MUHAS	168
	Total	1517

4.12.2.2 Subscription e-resources

During the period under review, the DLS subscribed to a number of databases including EBSCOHost, EMERALD, and more databases from Electronic Information for Libraries (EIFL) licensing programme. The access to these e-resources was granted through the Consortium of Tanzania University and Research Libraries (COTUL), to which MUHAS Library is a member. Table 38 provide the list of these databases

Table 38: List of subscribed e-Database

Publisher	Products	Status
EBSCOHost	E-Book and E-Journal	Active
Emerald	E-Journal	Active
IOP Publishing	IOP Science	active
ASTM international	ASTM Compass	active
Edward Elgar Publishing	Edward Elgar Eb	active
JSTOR	JSTOR	active
Mathematical Sciences Publisher	MSP Journals	active
OpenEdition	OPenEditionJou	
Oxford University Press	Oxford Databases	pending
Oxford University Press	Oxford Journals Collection	pending
Royal Society Publishing	Royal Society Journals Collection	active

4.12.3 Usage of E-Learning Computer Laboratory

During the reviewing period, a total of **131** online examinations and **17** trainings were successfully completed and a total of **15633** students used the eLearning computer laboratory to perform online examinations and trainings (Table 39).

Table 39: Online Examinations

S/No	Type of Examination	Number of Examinations/Trainings	Number of Students
1	Undergraduate Examinations	83	11,150
2	Postgraduate Examinations	29	3,239
3	Trainings	17	1,244
TOTAL		131	15,633



Figure 12: A cross section of a E-learning Centre computer laboratory

4.12.4 Bibliographic Data Entry into KOHA library management system

During the period under review a total of 333 books were entered into KOHA system. Currently, a total of 67,219 records have been entered. There are **32,666** books and **34,553** periodicals.

4.12.5 Library Smart Card Generation

During the period under review, DLS continued to generate library smart cards to students who have registered online to use the library whereby a total of **1528** cards were generated. Table 40 shows the distribution of library user cards per degree programme.

Table 40: Library registration and smart card distribution

S/No	Degree Programme	Number of Student
1	Doctor of Medicine (MD)	464
2	Pharmacy	103
3	Bachelor of Nursing	119
4	BMLS	209
5	Midwifery	33
6	Environment Health Sciences	57
7	Biomedical Engineering	23
8	BSc Radiology	29
9	Dip. Radiology	26
10	BSc. Physiotherapy	22
11	Doctor of Dental Surgery (DDS)	103
12	BSc. Anesthesia	63
13	BSc. Radiography	7
14	BSc. RTT	11
15	Masters` Students	259
TOTAL		1528

4.12.6 Research Support Services

During the period under review DLS responded to various library users` queries in order to improve the quality of research done by MUHAS staff and students, as well as MNH and MAMC Staff. Table 41 shows the services and queries that were handled by the DLS Research Support Services unit.

Table 41: Shows Research Support Services Queries

Months	Services Offered	Frequency
April – June, 2023	UpToDate User Registration and re-verifying the affiliation	1061
April – June, 2023	Plagiarism check software	609
April – June, 2023	Research Support (referencing, literature searching, choosing of reputable journal for publishing, checking for journal status i.e. if it is predatory or not)	9701
TOTAL		11371

4.12.7 Preparation of Research Bulletin for 2022

During the period under review, DLS continued to prepare the research bulletin for 2022. A total of **313** publications have been gathered and organized into MUHAS research bulletin format see appendix II.

4.12.8 Training for postgraduates and staff

During the period under review, the DLS conducted at a total of **six (6)** training workshops were conducted to faculty and postgraduate students as summarized in the Table 42.

Table 42: Training workshops conducted by the DLS

S/N	Title of the Training	Participants' category	Number of participants attended
1.	Open access/open science and predatory publishing	Junior faculty and postgraduate students	120
2.	Scientific writing and information literacy	Postgraduate students	93
3.	Strategies for discovery and utilization of scholarly content to enhance academic integrity and scientific writing	Postgraduates	125
4.	The use of Evidence-based databases	Postgraduate students	59
5.	Utilization of social networks for researchers and self-archiving of scholarly works to increase research visibility	Faculty members	22
6	Training of plagiarism checker (Turnitin) on how to use and avoid this academic offence	Faculties and postgraduates	170
		Total	589

4.12.9 Teaching of ICT & Communication Skills Course (IT110) and Communication skills (CS 100)

During the period under review, DLS academic staff utilized an E-learning management system for teaching and assessment of two courses: ICT and Communication (IT 110) for all first-year students and Communication Skills (CS 100) for second-year students. A total of **752** students took the online end-of-module examination for IT 110 course. In the same line, a total of **645** students registered for the CS 100 course were by **525** students sat for an online examination held on 20th February 2023.

4.12.11 Grants

During the reviewing period under review, a total of one grant was awarded two library academic staff as outlined below:

1. SIDA seed Grant titled 'Faculty perception towards open science and their practices on data sharing in Tanzania. Principal Investigator: Mr. Benson Orgenes. Co-investigator Leonida Kanyuma: Mentor: Dr. Sydney E. Msonde.

4.13 Directorate of Continuing Education and Professional Development

4.13.1 Introduction



Prof. Deodatus C.V. Kakoko

**Director, Continuing Education
and Professional Development**

The Directorate of Continuing Education and Professional Development (DCEPD) is a Unit of MUHAS responsible for the coordination, development, and delivery of Continuing Education (CE) programmes. The unit also coordinates professional development activities. The Vision of the DCEPD is to be a national and regional Centre of excellence in the provision of quality and sustainable Continuing Education and Professional Development (CEPD) in health and related disciplines. The directorate envisages the realization of this vision through its mission which is to provide quality, demand-driven Continuing Professional Development (CPD) through facilitation, regulation, and promotion of CEPD for the health sector and beyond. In implementing its mission, during this academic year, the DCEPD conducted several activities including the following:-

4.13.2 Continuing Professional Development (CPD) Short Courses

The Directorate continued to coordinate a total of **28 short courses** that were run by Schools, Departments, or Directorates. For the reporting period, the following short courses were conducted (Table 43):

Table 43: List of short courses conducted from June 2022 to July 2023

/N	Facilitating department/unit	Title of the short course	Dates
	In the 1 st quarter (01 st July to 30 th September 2022)		
1.	Community Health Nursing	Basic Emergence Obstetrics and New-born Care	18 th to 29 th July 2022
2.	Directorate of Library Services	Training on Scientific Writing and Communication	12 th to 16 th September 2022
3.	Anatomy	Mortuary Technician Courses	July, 2022 to June, 2023
4.	School of Public Health and Social Sciences	One Health Approach to Solving Complex Health Problems	26 th to 30 th September 2022
5.	Bioethics and Professionalism	Research Ethics	26 th to 29 th September 2022
6.	Emergency Medicine	Advanced emergency Critical care (AECC)	30 th July to 06 th July 2022
In the 2 nd quarter (01 st October to 31 st December 2022)			
7.	Directorate of Continuing Education and Professional Development (DCEPD)	Interactive Teaching Methods for academic staff	04 th to 05 th October 2022
8.	School of Nursing	Teaching Methodology Course for Educational and Health Care Professionals, Muheza Tanga	24 th October 2022 to 04 th November, 2022
9.	School of Nursing	Teaching Methodology Course for Educational and Health Care Professionals - Mbeya	31 st October 2022 to 11 th November, 2022
10.	Clinical Nursing	Basic critical care and emergency care clinical skill teaching	07 th November to 19 th December, 2022
11.	Clinical Nursing	Basic Critical Care and Emergence Care for Health Care Professionals	21 st November to 02 nd December, 2022
In the 3 rd quarter (01 st January to 31 st March 2023)			
12.	Pharmaceutics and Pharmacy	Pharmacovigilance and Vigilance	6 th to 10 th February 2023
13.	Anatomy	Mortuary Technicians conducted 3 batches	1 st February to 3 rd March, 2023
14.	MUHAS in collaboration with MNH and JKCI	Basic Echocardiography	6 th February to 3 rd March, 2023
15.	Directorate of Library Services (DLS)	Scientific Writing and Communication	27 th to 31 st March 2023
In the 4 th quarter (01 st April to 30 th June 2023)			
16.	Directorate of Research Publication and Innovation (DRPI)	Responsible conduct Research	24 th to 28 th April 2023
17.	Anatomy	Mortuary Technicians Conducted three batches	1 st April to 2 nd June 2023

18.	School of Public Health and Social Sciences (SPHSS)	Hospital Management for Health Profession	11 th to 12 th May 2023
19.	School of Dentistry (SOD)	Field Epidemiology – frontline	8 th to 12 th May 2023
20.	Microbiology and Immunology	Introduction to Biosafety Cabinet	1 st May to 9 th June 2023
21.	School of Nursing (SON)	Teaching Methodology for Education and Health Care	17 th April 2023 to 26 th May 2023
22.	School of Public Health and Social Sciences (SPHSS)	Health System Strengthening	12 th to 16 th June 2023
23.	MUHAS and Global Cancer Program, UCSF	Values – Based Leadership Development	26 th June 2023
24.	Community Health Nursing	Basic Obstetric Emergency and Newborn	19 th to 30 th June 2023
25.	Directorate of Research Publication and Innovation (DRPI)	Grant Writing	22 nd to 26 th May 2023
26.	School of Public Health and Social Sciences (SPHSS)	Advanced Qualitative Research Methods	26 th to 30 th June 2023
27.	Directorate of Library Services (DLS)	Use of Evidence Based Database in Clinical Decision Making	27 th to 28 th June 2023
28.	Medicinal Chemistry and Pharm R&D Lab	Analytical Method Development and Method Validation	19 th to 30 th June, 2023

Accreditation of continuing professional development Courses

The DCEPD accredited a total of **10 short courses** as shown in table 44:

Table 44: List of accredited short courses during July 2022 to June 2023

S/N	Facilitating Department	Title of the short course
In the 1st Quarter (1st July to 30th September 2022)		
1.	Development Studies	Management and Leadership for Malaria Elimination
2.	Biochemistry	Introduction to Gene Therapy for Educators
In the 2nd Quarter (1st October to 31st December 2022)		
3.	Hematology and Blood Transfusion	Essential of Project Management
4.	Clinical Pharmacy and Pharmacology	Bioanalysis
In the 3rd Quarter (1st January to 31st March 2023)		
5.	Internal Medicine	Practical Electrocardiogram (ECG)
6.	Directorate of Information and Communication Technology (DICT)	Introduction to Health Data Analytics
In the 4th Quarter (1st April to 30th June 2023)		
7.	Biochemistry	Clinical Diagnosis of Rare Diseases
8.	Medicinal Chemistry and Pharm R&D Lab	Analytical Method Development and Validation

9.	Hematology and Blood Transfusion	Multi-disciplinary Management of Sickle Cell Disease Short Course for Health Care workers
10.	Behavioral Sciences	Risk Communication and Community Engagement

4.13.4 Meetings, Conferences, and Symposia

Senate Continuing Education and Professional Development Committee (SCEPD) held quarterly meetings on 15th October 2021 (for quarter 1); 18th January 2022 (for quarter 2); 25th March 2022 (for quarter 3) and 04th July 2022 (for quarter 4).

4.13.5 Activities Accomplished by DCEPD Units

Clinical Skills Laboratory Unit: activities for the skills laboratory included preparation, scheduling, and overseeing skills laboratory demonstrations and simulated learning for both undergraduate and postgraduate students for clinical skills from different schools; maintaining an inventory of supplies, equipment, and learning resources; creating a conducive learning environment that enhances the student's ability to use conceptual thinking and problem-solving skills; procurement of supplies, equipment, and learning resources for clinical skills demonstrations, simulation, and remediation; coordinating and organizing clinical skills sessions for Short course, especially those needs clinical skills through demonstration and simulation in the skills lab from the school of Medicine and Nursing; and Conducting Objective Structured Clinical Examinations (OSCE) for both undergraduate and postgraduate students undertaking clinical courses.

The DCEPD through Clinical Skills Unit supported a total of **36 activities** that were conducted in the Multi user Clinical Skills Laboratory at CHPE building. These activities done during this academic year were as shown in table 45:

Table 45: List of activities conducted in the multi user clinical skills laboratory supported by DCEPD during July 2022 to June 2023

S/N	Facilitating Department (s)	Activity	Dates
In the 1st quarter (1st July to 30th September 2022)			
1	School of Nursing and Medicine	Clinical skill teaching for all undergraduate and postgraduate	

2	Obstetrics and Gynecology, Surgery, Pediatric, Clinical Nursing and Community Nursing	Objective Structured Clinical Examinations (OSCE)	August, 2022
3	Surgery	Supplementary examinations to 34 students	30 th August 2022
4	Community Health Nursing	Basic Emergence Obstetrics and New-born Care short course	18 th to 29 th July 2022
In the 2nd quarter (1st October to 31st December 2022)			
5	Clinical Nursing	Basic Critical Care and Emergency Care Clinical Skill Teaching for undergraduate students	07 th November to 19 th December, 2022
6	Community Health Nursing	Advanced Midwifery Clinical Skill Teaching for postgraduate students	15 th November to 06 th December, 2022
7	Surgery	Advanced Surgical Clinical Skill Teaching for postgraduate students	14 th November to 7 th December, 2022
8	Community Health Nursing	Basic Midwifery Clinical Skill Teaching for undergraduate students	17 th November to 08 th December, 2022
9	ENT	Temporal Bone Dissection Clinical Skill Teaching for postgraduate students	8 th November to 13 th December, 2022
10	Clinical Nursing	Basic Critical Care and Emergence Care	21 st to 30 th November, 2022
11	Pediatrics and Child Health	Pediatric and Neonatal Clinical Skill Teaching for undergraduate students	01 st and 02 nd of December, 2022

12	Obstetrics and Gynecology, Surgery, Pediatric, Clinical Nursing and Community Nursing	Objective Structured Clinical Examinations (OSCE) for end of module 2022/2023 academic year	16 th December, 2022
13	Surgery	Training on Laparoscopic Surgery for residents Doctors	12 th to 23 th December, 2022
14	Ministry of Health of the United Republic of Tanzania	Video Shooting of Training Materials for NIMART project	19 th to 23 rd December, 2022
In the 3rd quarter (1st January to 31st March 2023)			
15	Community Health Nursing	Basic midwifery clinical skill teaching for undergraduate students	10 th January to 08 th February 2023
16	Clinical Nursing	Advanced Clinical Nursing skill teaching for undergraduate students	10 th , January to 20 th February 2023
17	Obstetrics and Gynecology	Basic Obstetrics and Gynecology skill teaching for undergraduate students	23 rd January to 28 th March 2023
18	Pediatrics and Child Health	Basic Pediatric and neonatal clinical skill teaching for undergraduate students	27 th January 2023
19	Nursing Management	Clinical teaching methods for undergraduate students	30 th January 2023
20	Surgery	Basic surgical clinical skill teaching for undergraduate students	03 rd February to 31 st March 2023
21	Clinical Nursing	Advanced Clinical Nursing skill teaching for undergraduate students	31 st March 2023

22	Community Health Nursing	Advanced midwifery clinical skill teaching for undergraduate students	14 th February 2023
23	Community Health Nursing	OSCE exam from the School of Nursing	17 th February to 09 th March 2023
24	Surgery	OSCE exam Undergraduate students	17 th February 2023
25	Global Hope	Global Hope Nursing workshop	22 nd February 2023
26	Pediatrics and Child Health	OSCE exam Undergraduate students	27 th February 2023
27	Pediatric Haemato-Oncology	OSCE exam Postgraduate students	28 th February 2023
28	Obstetrics and Gynecology	OSCE exam Postgraduate students	08 th to 10 th March 2023
In the 4th quarter (1st April to 30th June 2023)			
29	Community Health Nursing	Basic midwifery clinical skill teaching for undergraduate students	13 th June 2023
30	Clinical Nursing	Basic Clinical Nursing skill teaching for undergraduate students	10 th April to 4 th June 2023
31	Obstetrics and Gynecology	Basic Obstetrics and Gynecology skill teaching for undergraduate students	5 th to 27 th June 2023
32	Pediatrics and Child Health	Basic Pediatric and neonatal clinical skill teaching for undergraduate students	27 th May 2023
33	Surgery	Basic surgical clinical skill teaching for undergraduate students	12 th April to 2 nd June 2023

34	Clinical Nursing	Advanced Clinical Nursing skill teaching for undergraduate students	12 th June 2023
35	Community Health Nursing	Basic midwifery clinical skill teaching for undergraduate students	13 th June 2023
36	Surgery	OSCE exam Undergraduate students	19 th April 2023 and 23 rd June 2023

Medical Illustration Unit: this unit conducted various activities including Taking Photographs of different events; Recording videos and edited them; Taking photos for identity card Production; Producing identities for Staff and Students; Assisting in Training students about Research Poster designing, Policy Brief designing; Preparing materials for teaching; Assisting in public address system preparation and installation; and designing posters, graphics, and figures for different events and uses.

4.13.6 Teaching/Examinations

The HE 600 course for MUHAS postgraduate students was accomplished as planned. Students sat for two continuous assessments and final examination. We received good cooperation from coordinators and all members of Health Professional Educators Group (HPEGs).

4.13.7 Other Activities, Events, and Accomplishments

DCEPD developed professionalism assessment criteria for all academic programmes offered at MUHAS. Professionalism assessment criteria document for MUHAS programmers was submitted and endorsed by Senate for implementation. Thereafter, it was distributed to Deans of Schools and Directors of Academic units for implementation.

4.13.8 Accreditation of continuing professional development Courses

The DCEPD accredited a total of **10 short courses** which were submitted for review and approval from the SCEPD

4.13.9 Faculty Development

With the support of the Office of the Deputy Vice Chancellor - Academics, DCEPD organized two trainings in January, 2023 (96 participants) and May, 2023(50 participants) were conducted. All these training involved Newly Employed Academic Staff of MUHAS.

4.13.10 DCEPD Staff Development

From 18th July 2022 to 12th August 2022 the Secretary attended Management Development for Executive Assistants (MDEA 1) training at Magogoni Tanzania Public Service College in Dar es Salaam. She passed the course and she has been awarded certificate.

Mr. Silvano Sanjah (Audio-visual Technician) who was attending staff development training at the University of Dodoma reported back after he was discontinued from studies on academic grounds.

4.13.11 Meetings, Conferences, and Symposia

Senate Continuing Education and Professional Development Committee (SCEPD) held quarterly meetings on 15th October 2021 (for quarter 1); 18th January 2022 (for quarter 2); 25th March 2022 (for quarter 3) and 04th July 2022 (for quarter 4).

4.13.12 Activities Accomplished by DCEPD Units

Clinical Skills Laboratory Unit: The DCEPD through Clinical Skills Unit supported a total of **36 activities** that were conducted in the Multi user Clinical Skills Laboratory at CHPE building.

Medical Illustration Unit: this unit conducted various activities including Taking Photographs of different events; Recording videos and edited them; Taking photos for identity card Production; Producing identities for Staff and Students; Assisting in Training students about Research Poster designing, Policy Brief designing; Preparing materials for teaching; Assisting in public address system preparation and installation; and designing posters, graphics, and figures for different events and uses.

4.13.13.1 Teaching/Examinations

The HE 600 course for MUHAS postgraduate students was accomplished as planned. Students sat for two continuous assessments and final examination. We received good cooperation from coordinators and all members of Health Professional Educators Group (HPEGs).

4.13.14 Other Activities, Events, and Accomplishments

DCEPD developed professionalism assessment criteria for all academic programmes offered at MUHAS. Professionalism assessment criteria document for MUHAS programmers was submitted and endorsed by Senate for implementation. Thereafter, it was distributed to Deans of Schools and Directors of Academic units for implementation.

4.14 Directorate of Quality Assurance

4.14.1 Introduction

Quality Assurance Unit is under the office of the Vice Chancellor as per the new MUHAS organogram. Its mandate is to ensure ‘fit for purpose’ of all University activities. During the 2022/23 financial-year the Unit continued to push for more involvement of MUHAS community in quality assurance matters. No staff was recruited to the directorate in the 2022/23 academic year in spite of repeated requests to build the capacity of the unit to enable it to monitor and evaluate teaching/learning, research and public health activities across the University.

4.14.2 Achievement Made During the Reporting period

Number of trainings were held for staff at Muhimbili campus including dissemination of various guidelines and revised quality assurance policy for quality improvement. We conducted a tracer study for post graduate programmes under HEET project.

The unit has continued to work with the Tanzania Commission for Universities, the Inter-University Council of East Africa and other Universities inside and outside the country to learn best practices in the provision of higher education and health services.

➤ Meetings,

- Our Unit has continued to hold a quarterly meeting of the Senate Quality Control Committee where the committee receives, discusses and recommends to the University Senate on issues from the Curriculum Committee, the Examination Committee and the Committee of team of evaluators of the best teaching practice at MUHAS where the committees they provide their quarterly reports to the Senate Quality Assurance Committee.

4.14.3 Challenges

Despite these achievements, the unit continued to carry out its activity without having an office secretary, a data programmer and Quality Assurance officer. In addition, financial resources for different activities such as tracer studies, curriculum revisions, self-assessments need to be allocated and protected.

4.15 Director of Students Services

4.15.1 Introduction:



Prof. Tumaini Nyamhanga
Director of Students Services

This report outlines the events and activities of the office of the Dean of Students (DOSO) that took place from 01st July, 2022 to 30th June, 2023. During the reporting period the office continued to provide various services to students including: Orientation for 1st year students, guidance and counseling, health, accommodation, cafeteria, games and sports, counseling and guidance as well as overseeing the students' organization (MUHASSO).

4.15.2 Orientation for first year students:

The Office of Dean of Students managed to conduct first year undergraduate students' orientation from 17th to 22nd October, 2022. During this time, students made all required payments prior to registration. The orientation week was marked by sports bonanza held on 22nd October, 2022.

4.15.3 Guidance and Counseling Services:

The guidance and counseling services were provided to students. A total of 132 (103 males and 29 females) from various schools and the Institute of Allied Health Sciences were guided and counselled. Matters of concern which were reported to the counseling unit were: academic, social, psychosocial, financial, spiritual, health, and psychiatric.

4.15.4 Care and Support to Sick Students:

4.15.4.1 Support to sick students

The Students Services Bureau supported sick students by facilitating availability of medical insurance membership cards and closely following up those who were hospitalized. During the reporting period, a total of One Hundred and thirty-four (134) students fell sick – of whom 106 were attended to as outpatients and 28 were hospitalized.

4.15.5 Students Accommodation Services:

4.15.5.1 Enforcement of Students Tenancy Agreement:

During the reporting period, the Students Services Bureau (SSB) allocated rooms to eligible students at Muhimbili, Chole Road, and Nursing Hostels. The SSB also enforced Students Tenancy Agreement and Students By-laws pertaining to accommodation.

4.15.6 Cafeteria Services:

The company that was, and still is, providing cafeteria services at Muhimbili and Chole Road Hostels is Villa Catering. Overall, performance of the company was satisfactory, despite some challenges that were reported and addressed accordingly.

4.15.7 Security Issues at the Hostels:

Security matters at both Muhimbili and Chole Road student's hostels are taken care by SUMA JKT. Overall, performance of the company was satisfactory, despite some challenges that were reported and addressed accordingly.

4.15.8 Students' Leadership and Governance:

MUHASSO Government continued with their activities harmoniously to a large extent. The students' government got necessary support from the University Management as need arose. The 2022/2023 MUHASSO leadership completed its term in May, 2023. The new government was elected and assumed powers in mid-May, 2023. The new top MUHASSO leaders for 2023/2024 academic year are: President: Ms. Vanessa R. Rutabana (MD4); and Vice President: Mr. Frank P. Msaki (BScEHS 2). Both took Oath of Office on 16th May, 2023.

4.15.9 Events/Sports Activities:

4.15.9.1 Internal Sports Events

Several Intra-University sports events - particularly football and Volleyball competitions - were organized and conducted by MUHASSO.

4.16 Estate and Works Management Unit

4.16.1 Introduction

The Estates and Works Management Unit (EWMU) forms part of MUHAS's Technical and Administrative Support Services, and it is the Unit's duty to manage MUHAS's extensive portfolio of physical assets and land assets and to provide a safe, sustainable, efficient and comfortable environment for MUHAS's staff, students and visitors. The Unit is continually improving the University Estates activities by administering new constructions and refurbishment of existing buildings and infrastructure. It also develops University lands and manages



Qs. Gerald L. Mwikuka
Manager, Estate Works
Management Unit

environment cleanliness, waste disposal, grounds and building maintenance. EWMU aims to provide first class services in order to deliver a high quality and value for money services to support Teaching, Learning and Research.

4.16.2 Works Projects

4.16.2.1 Construction of the Multi-Purpose Building for the Centre of Excellence in Cardiovascular Sciences at Mloganzila Campus

The Directorate has been actively engaged as part of the building team for the Construction of the Multi-Purpose Building for the Centre of Excellence in Cardiovascular Sciences at Mloganzila Campus. To closely supervise the ongoing construction works, the Directorate's Engineer and Architect were appointed as Clerk of works for this major construction project that is being constructed by the Contractor M/S Group Six Int. at a contract sum of TZS 12,300,990,594.41 (fixed price). The project commenced on 20th February, 2018 and was scheduled to be completed on 30th November 2019, however due to various challenges beyond the contractor's ability including delays in clearance of imported.

The construction has now been completed and the building was handed over on 11th March 2022. Currently the building is in the defect's liability period. However, during the reporting period, the contractor has attended only one snag among the several snags listed by the consultant after rehabilitation of defaults found in the elevator installed in the building. Final inspection that was to be done in March 30th 2023 was not done and therefore project not closed. There was slow response from the contractor whereby less than 50% of the listed snags were attended but majority were not attended despite reminder letters to a contractor through consultant. The Estates and Works Management Unit has received a final account and is planning to undertake final inspection so as to conduct a joint meeting to discuss signing of the final account.

4.16.2.2 Design and Construction Supervision of Vertical Extension of the SPHSS Building

Due to an acute shortage of office spaces in the University, the University through the School of Public Health and Social Sciences (SPHSS) decided to extend the SPHSS building (Block M) vertically to add one more floor on top of the existing single-story structure in order to address the challenge of teaching venues and staff offices. This project is being executed by the Contractor M/s G.E. Engineering and the total cost of the extension works is a sum of TZS 187,783,843.00 (VAT Inclusive). The Consultant for this project is A.V. Consultant. This project commenced on 8th December, 2021 and was supposed to be completed on 8th June, 2022. However, due to various factors, the Contractor requested a first-time extension of time from 8/4/8th April 2022 to 9th August, 2022, and the second extension of time from 10th August 2022 to 2nd November, 2022. The building was handed over on 13th April 2023 and is now on the defect's liability period of one year.

4.16.2.3 Construction of Water Tank at MUHAS.

To ensure that MUHAS has its own water source that is connected directly at DAWASA mains, rather than the current arrangement whereby MUHAS gets its water supply through Muhimbili National Hospital (MNH), the contractor M/S Maski & Sons Construction Co. Ltd was awarded a contract worth a sum of TZS 924,485,743.39 VAT inclusive to construct an overhead concrete water storage tank as well as an underground concrete water storage tank.

This project's construction life span is six months, and it started on 4th July 2022 and was supposed to be completed on 4th January 2023. The 1st Extension of time was up to April 2023 to cover for time lost in following up with TANESCO to move electrical poles and changes in water tank location. The second Extension of time was granted up to May 2023. The third extension of time has been granted up to 25th November 2023. The contractor has been issued a notice to ensure the project is completed by November 2023 and that no further extension of time will be granted.

4.16.2.4 Tender for Supply and Installation of Elevator Machine (Lift) at CHPE Building, Tender No PA/007/2021-2022/G/26

In the continuous efforts aimed at creating a conducive working environment at MUHAS, as well as ensuring that the physical built infrastructure is easily accessible to all, the Elevator services provider, M/S Derm Elevators Limited was awarded a contract worth a sum of TZS 135,844,396.60 VAT inclusive to install a lift machine in CHPE Building. The installation process was estimated to take 120 days, and commenced on 5th

August, 2022, and was to be completed on 5th December, 2022. Final handing over was done on 10th May 2023. The Contractor is in Defect Liability Period of 1 Year.

4.16.2.5 Construction of a Storm Water Channel at BADECO Expand satellite teaching facilities at Bagamoyo Teaching Unit (BTU).

In an effort to control the damage that was caused by the storm water from upper lying areas of Bagamoyo township towards MUHAS's BADECO beach plot, as well as creating a conducive research and learning environment at Bagamoyo Training Unit (BTU), the contractor M/S Elite Construction Ltd was awarded a contract worth a sum of TZS 134,512,032.00 VAT inclusive to execute works. These works involved construction of the storm water to channel rain water into the Indian Ocean as well as renovation works at BTU. The works started on 16th May 2022 and were completed in 1st August 2022.

4.16.2.6: Proposed Rehabilitation of Main Campus Student's Hostels.

The Contractor M/S Harisini Ent. Ltd was granted a contract worth a sum of TZS TZS.164,953,646 VAT inclusive to carry out rehabilitation of main campus student's hostels. The rehabilitation works were geared at ensuring that students continue living in a conducive environment at MUHAS. These works commenced on 26th February, 2023 and are supposed to be completed on 30th April 2023.

4.16.2.7: Proposed Renovation of Chole Road students' hostels

In the continued efforts to ensure that the physical infrastructure supporting the students learning and living environment is conducive, a works contract worth a sum of TZS 114,112,020 VAT inclusive was awarded to a Contractor M/S Afri Works Co. Ltd. to carry out renovation works of the students hostels at Chole. These renovation works commenced on 2nd January 2023 and were completed on 2nd April 2023. Figures 13 and 14 show some of the renovation works that were conducted in the hostels at Chole Road.

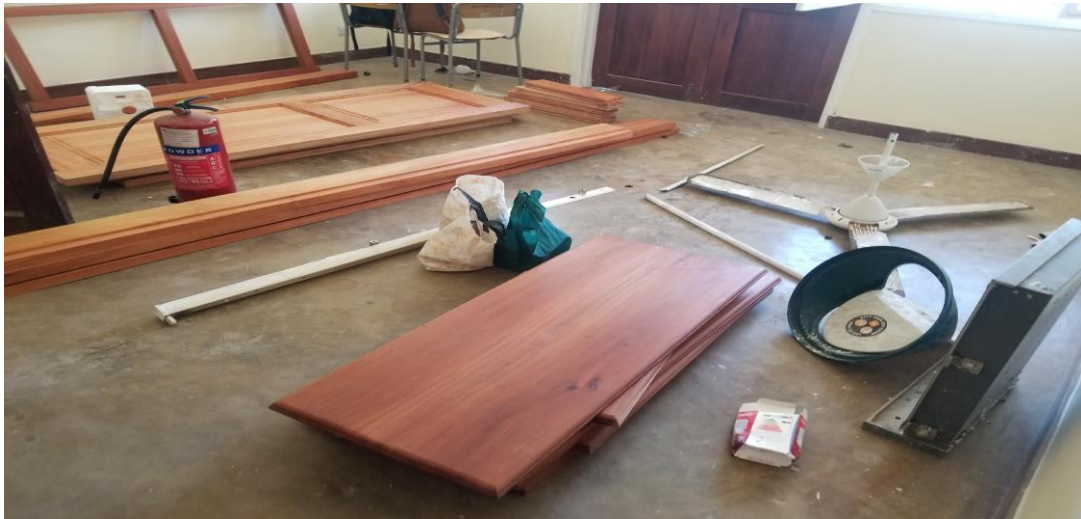


Figure 13: Replacement of Door Panels in Student Hostels.



Figure 14: Replacement of Door Panels in Student Hostels.

4.16.2.8: Proposed Renovation of Ophthalmology Laboratory at MPL Building

To ensure that research activities are carried out in an ideal research environment, the Contractor M/S Comflex LTD, was awarded a contractor worth a sum of TZS 19,582,830/= VAT Inclusive to undertake renovations works in the Ophthalmology Laboratory in MPL Building. This renovation commenced on 21st March 2023 was completed on 20th April 2023. Figure 15 shows some of the renovation works that were conducted in the PML building at Muhimbili Campus.



Figure 15: New Fabricated Wood Ophthalmology Laboratory.

4.16.2.9 Strengthening boundary at MAMC(Mloganzila).

The Contractor M/S Afri Works Company Ltd was awarded a contract worth a sum of TZS 159,645,150.00 VAT inclusive to carry out boundary recovery as well as placement of heavy concrete barriers along the borders of MUHAS's Mloganzila land, that started on 13th June 2022 and will be completed on 13th August 2022. Once the project is completed it will strengthen the security of MUHAS's vast land at Mloganzila against encroachment by the rapidly mushrooming settlements and increasing human activities along MUHAS Mloganzila land's borderline.

4.16.3 Preventive Maintenance Contracts

4.16.3.1 Servicing of MPL lift

During the reporting period, the Estates continued with supervising a new procured service provider M/s Metatron Lift Company Limited for preventive maintenance project of servicing and maintenance of MPL lift at Muhimbili Campus. The contract sum of the service is TZS TZS1,416,000 VAT inclusive per service. This two years' service contract commenced on 3rd August, 2023 and will end on 2nd August, 2025. The preventive service among other tasks, also includes servicing of the lift's cooling fans, guide shoe, as well as the lift's automation system Blow dust (inside controller) using air.

4.16.3.2 Servicing of Generators

To ensure that University standby generators continue to operate at optimum levels, and their service lives are prolonged, the Estates continued supervising a new services provider M/S M.D.I Energy Co. was procured during the reporting period to provide Services and Maintenance of Generators at MUHAS at a contract sum of TZS 28,848,640 (per service). This service contract commenced on 3rd August, 2023, and will end on 2nd August, 2025.

4.16.3.3 Preventive maintenance of Air conditioners at MUHAS and Kalenga and Chole Students Hostels

During the reporting period the service provider M/S Ref Refrigeration and Air Conditioning carried out preventive maintenance of Air conditioners at MUHAS, Kalenga House and Chole Students Hostels. This two years' service contract is executed every after three months is worth a sum of TZS 19,892,006.02 VAT inclusive per annum, and services. This service contract commenced on 4th July, 2023, and will end on 4th July 2025.

4.16.3.4 Preventive Maintenance of Sewerage System at MUHAS Main Campus and Chole Road Student Hostels

During the reporting period, the Estates continued to supervise a new garbage service provider M/s Oldvai Decorators & General Suppliers was procured to provide preventive maintenance of the sewerage system at Muhimbili Campus, Mloganzila Campus, Chole Road Students Hostels and Bagamoyo Training Unit at a contract sum of Sum TZS 22,951,000 per annum. These is a two years services contract commenced on 1st July, 2023, and will end on 31st June, 2025.

4.16.4 Ground Maintenance and Cleaning Service CONTRACTS

4.16.4.1 Provision of Cleaning and Gardening Services at MUHAS Main Campus, Chole Road Student Hostels and Bagamoyo Training Unit (Lot 1&2)

To ensure the presence of an pleasant and aesthetic environment in both the Univeristy soft and hard landscape areas as well as maintaining cleanliness in students hostels, offices and lecture halls, the service provider M/S Ledso Consolidated Limited continued offering cleaning and gardening services at both MUHAS's main Campus, Bagamoyo Training Unit (BTU), Kalenga House and Chole student's hostels at a contract sum of TZS 22,900,000 VAT inclusive per month. The Directorate continued with the supervision of this two-year contract commenced on February, 2023 and will end on February, 2025.

4.16.4.2 Provision of Garbage Collection Services at MUHAS Campus and Chole Road Students Hostels.

To ensure the proper collection and disposal of solid waste in various areas of the University Campuses, the Directorate of Estates continued supervising the new service provider M/S BHN Solution Company Limited who has been contracted to provide garbage collection services at both MUHAS Campus, Chole students' hostels and at Kalenga Guest House at a contract sum of TZS 9,406,960 per month and the contract commenced on 4th July, 2023, and will be end on 3rd July, 2024

4.16.4.3 Provision of Sanitary Disposal Services at MUHAS Main Campus and Chole Road Student Hostels

During the reporting period, the service provider M/S Envirotec Hygiene and Pest Control Limited continued with the Provision of Sanitary Disposal Services at both MUHAS's main Campus and Chole student's hostels Under the supervision of the Estates Directorate. This service provider is engaged to ensure that hygienic conditions are maintained in all ladies' wet areas. This service contract is worth a sum of TZS 28,320,000 VAT inclusive, and it commenced on 18th November, 2021 and will end on 18th November, 2023.

4.16.5 In House Repairs

During the reporting period the Directorate carried out a number of routine minor repair tasks in in response to repair request from various end users at the University Campuses. A few selected minor repairs and renovation works done included:

4.16.5.1Aluminum Partition Anatomy MPL Building.

- 1) Imprest Advance to Purchase Materials and Labor Charges for Repair Corridor Floor and Stairs Tiles at CHPE Building.
- 2) Cost estimates for purchasing of materials and assistant labor charges for renovation of MUHAS/RES/003 first floor (three-bedroom apartment).
- 3) Purchasing of materials and assistant labor Charges for painting MPL toilets and college of medicine two allocated offices No. 11& 13.
- 4) Purchasing of materials and assistant labor Charges for Rehabilitation and fabrication of steel shelves racks at the Archive room of Directorate of Finance.
- 5) Purchasing of materials and assistant labor Charges for proposed rehabilitation of SOD operating theatre toilets.
- 6) Purchasing of materials and assistant labor Charges for minor Renovation of SPHSS environmental

classroom.

- 7) Purchasing of materials and assistant labor Charges for ITM manufacturing unit renovation for installation of new liquid filling machines.
- 8) Materials and Labor cost for proposed renovation of offices of Radiology and Imaging department at block M and block D.
- 9) Cost estimates for schedule of materials and assistant labor charges for face up lifting of various building at MUHAS
- 10) Cost estimates for purchasing of materials and assistant labour charges for renovation of MUHAS/RES/003 first floor (three-bedroom apartment)
- 11) LPO No.00Y70000PO22001173.Purchasing of Materials and Assistant labor Charges to Establish Zebra Crossing Speed Limits.
- 12) Purchase of Materials and Assistant Labor Charges for Minor Rehabilitation of CPL Classroom At MNH
- 13) Purchasing of Materials and Assistant Labor Charges to Renovate CADAVA Cold Room Ceilings.
- 14) Purchasing of Materials and Assistant labor Charges to Establish Zebra Cross and Speed Limits Signs.

4.17 Directorate of Human Resources Management and Administration

4.17.1 Introduction



The Directorate of Human Resource Management and Administration is responsible for the execution of various Human Resource functions at the University. Among others, the Directorate plays a pivotal role of ensuring that the University has optimum level of human resources so as to promote University performance through effective and efficient execution of the Human resource functions. The Directorate has been continuously maintaining a conducive working environment that encourages employees to achieve the University goals as well as the individual professional goals. For the purpose of ensuring

Ms. Gerwalda Luoga
Director, Human
Resources Management
and Administration

availability of required human resources at optimum level, the Directorate has been continuously planning, recruiting, developing and managing human resources so as to improve University performance towards achieving the University's strategic objectives. Basing on public service policies, rules and regulations, efficient, quality and timely Human Resources and Administration Services have been provided to MUHAS staff and

other University's stakeholders in order to facilitate smooth operation of the University during the period under review.

4.17.2 Activity Report Highlights for the year 2022/2023.

4.17.2.1 Staff qualification

During reporting period MUHAS had a total of 447 Academic staff that were employed on full time basis (Table 46).

Table 46: Academic staff ranking as at 30th June, 2023.

S/N	Staff Rank	Qualification	Female	Male
1	Professor	PhD/MMed	2	10
2	Associate Professor	PhDMMed	10	18
3	Senior Lecturer	PhD/MMed	22	26
4	Lecturer	PhD/MMed	45	62
5	Assistant Lecturer	MSc	45	70
6	Tutorial Assistant	Bachelor Degree with GPA of at least 3.8	44	93

4.17.2.2 Table 47. below shows MUHAS Academic staff by gender as at 30th June, 2023

Table 47: Academic staff by Gender as at 30th June,2023

S/N	Academic staff by Gender	No.
1	Male	279
2	Female	168

4.17.2.3 During the reporting period MUHAS had a total of 261 Administrative and Technical as at 30th June, 2023.

Table 48 below shows administrative staff by gender as at 30th June, 2023.

Table 48: Administrative staff by Gender as at 30th June,2023

S/N	Administrative staff by Gender	No
1	Male	136
2	Female	125

4.17.2.4 Table 49 below shows Technical staff by age and gender as at 30th June, 2023.

Table 49: Technical staff by Gender as at 30th June, 2023

S/ N	Technical staff Age	No.
1	Male	47
2	Female	17

During the financial year 2022/2023 through President's Office –Public Service Management & Good Governance, MUHAS received employment permit to recruit total of 112 Academic staff and 12 Administrative & Technical staff as shown in the table 50 below:

Table 50: Academic and Administrative & Technical staff Recruited as at 30th June, 2023

S/N	STAFF CATEGORY	New Hire
1.	Academic Staff	112
2.	Administrative Staff	12
	Total	124

4.17.3 Staff Retirement

In this financial year 2022/ 2023 total of 19 Academic and Administrative & Technical staff retired from Public Services as per Public Service Regulations (Table 51).

Table 51: Number of Retired staff as at 30th June, 2023

S/N	STAFF CATEGORY	GENDER	
		M	F
1	Academic staff	1	0
2	Administrative staff	6	13
	TOTAL	7	13
	GRAND TOTAL	20	

SN	STAFF CATEGORY	STAFF RETIRED
1.	Academic Staff	8

2.	Administrative Staff & Technical staff	11
	TOTAL	19

4.17.4 Staff Training and Development.

4.17.4.1 Staff on Long term Training

During the period of 2022/2023 the Directorate has continued to ensure that competent human resources with appropriate skills are available. The University through the directorate of Human Resource Management and Administration has continued to facilitate staff to attend training in the various fields both locally and overseas. In this respect, a number of employees were trained in different specialities from various learning institutions basing on the University training policy. Table 52 below shows the staff on long term training as at 30th June, 2023.

Table 52: Staff Training and Development

S/N		PhD	Master	Other training (Post Doc, MSc. Super Specialization)		Total
Academic Staff	Staff on Training	M =23 F =17	M = 20 F = 8	M=5 F= 1		
	Total	40	28	6		74
Admin & Technical Staff	Staff on Training	PhD M=0 F =0	Master M= 4 F = 2	Degree M = 4 F = 4	Diploma & Other M = 0 F = 0	Total
	Total	0	6	8	0	14

Furthermore, in the financial year 2022/2023, staff that were short course training are indicated in the table 8 below;

Staff who attended short course training

During the reporting a total of 54 staff were facilitated to attend various short trainings for basing on the needs of the University and Government directives.

4.17.5 Sports and Health Services for MUHAS Staff

During the reporting period the Directorate of Human Resources Management and Administration continued to organise Sports and Health Day every end of the month in order to ensure that MUHAS staff are physical fit and are taking health precautions in fighting against non-communicable disease.

4.18. Directorate of Finance

4.18.1 Introduction



Directorate of Finance is one of the directorates of the Muhimbili University of Health and Allied Sciences (MUHAS). The Directorate is responsible for planning, directing and controlling of the financial and accounting operations of the University. The directorate is also responsible for liaising with auditors in conducting their audit assignments, liaising with tax authority in various tax matters, and providing fundamental financial analysis and feedback on the budget performance and assessment of the financial accounting operations.

4.18.2 Audited Accounts for Financial Year 2022/23.

Abdallah Mwaduga
Director of Finance

The audit for the financial year 2021/2022 started in October 2022. During the reporting period MUHAS continued to comply fully with all International Public-Sector Accounting Standards (IPSAS) and Tanzania Financial Reporting Standards issued by the National Board of Accountants and Auditors. MUHAS statutory auditor is the Controller and Auditor General (CAG) who is currently working jointly with M/S Lindam Audit in auditing of the University. The Financial Statements for the following projects were also prepared to be audited in the reporting period: -

Audited Project Accounts for 2021/22

S/N	Name of Project	Auditor
1	Sida Programe	CAG/Lindam Audit
2	Transforming Health Profession Education in Tanzania (THET) -	CAG/Lindam Audit
3	Norhed - Norad	CAG/Lindam Audit
4.	Sparco Project	CAG/Lindam Audit

4.18.3 Trainings, Seminars, Workshops and Conferences

During 2022/23, the University continued to send key staff for various training including International Public-Sector Accounting Standards (IPSAS), Mfumo wa Ulipaji Serikalini (MUSE), PlanRep and financial modelling. The trainings provided new insights and updated information to the accounting staff and skills to improve their performance.

Another seminar attended by various staff of the Directorate is Record Management and filing system

Rollout of and Migration to “Mfumo wa Ulipaji Serikalini” (MUSE)

During the year MUSE was rolled out to MUHAS

4.18.4 Achievements

- (i) Clean audit report (unqualified opinion) for 2021/2022
- (ii) All staff of the Directorate set objectives and targets of performance and evaluated through OPRAS. 99% got an average of B score
- (iii) The University improved revenue collection through the use of the Government Electronic Payment Gateways (GePGs).
- (iv) More improvement in tax administration. VAT and Withholding Tax was collected and paid in time. All returns were filed on line.
- (v) Debt collection from Ministry of Health, Community Development, Gender Elderly and Children about 1.8 billion and from HESLB about TZS 1.2 billion
- (vi) Timely handling of student issues and complaints
- (vii) NHIF forms processing backlog was cleared at MUHAS Dental Clinic
- (viii) Increased revenue collection compared to last year (7.6 bn vs. 7.1 bn)
- (ix) Internet banking implemented for all funded projects. All initiators and approvers have been identified and registered with bank ready for training and take off

4.19 Internationalization and Convocation Unit

4.19.1 Introduction



The Internationalization and Convocation Unit at MUHAS is responsible to coordinate all foreign and visiting scholars' affairs, manage collaborative links as well as coordinating the University Convocation activities. The unit is divided into two core functions: Internationalization and Convocation. Below is the summary of events and activities of the unit during the period of July 2022 to June 2023.

Dr. Maryam Amour
Acting Head
Internationalization and
Convocation Unit

4.19.2 Internationalization: Elective Study Activities

In this financial year, the unit received and processed applications from individual elective students, as well as international coordinators of study abroad programs. A total of 159 elective students were received, registered, and allocated in different schools. A total of 9 students were received from different countries with most of the students from Germany (Figure 16).

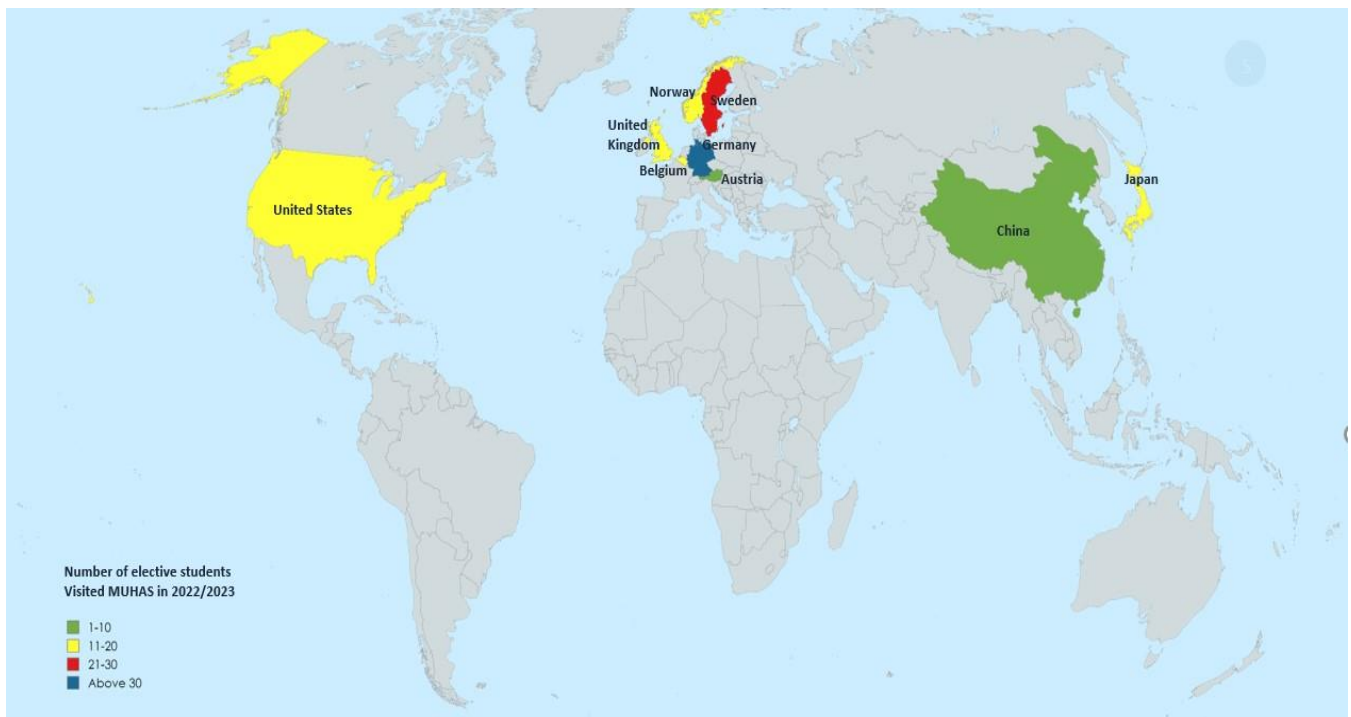


Figure 16: Number of elective students according to countries of origin.

4.19.2.1 Elective Study Applications: Student Initiated versus Institutionally initiated.

In the reporting period, applications were received from individual elective students, as well as from international coordinators of universities. A total of 32 students applied for elective studies individually. Individual students apply themselves for the elective studies after seeing the information in the MUHAS website or after referral from past students.

Applications from coordinators of elective students were received from different universities that have an Memorandum of Understanding with MUHAS. The following number of students came to MUHAS under such agreements:

- i. A group of 17 students from Antwerp University, Belgium did up to 8 weeks clinical rotation at different departments in the Campus College Medicine.
- ii. The Dartmouth College, USA sent 3 students to the Campus College of Medicine that rotated in the departments of Internal Medicine and Paediatrics and Child Health.
- iii. American University, USA sent 9 research students to the Campus College of Medicine that rotated in the department of Psychiatry and Mental Health.
- iv. Campus College of Medicine received 1 student from Uppsala University under an agreement with Linnaeus – Palme Exchange.
- v. Campus College of Medicine received 11 students from MIE University, Japan and rotated in the department of Paediatrics and Child Health.

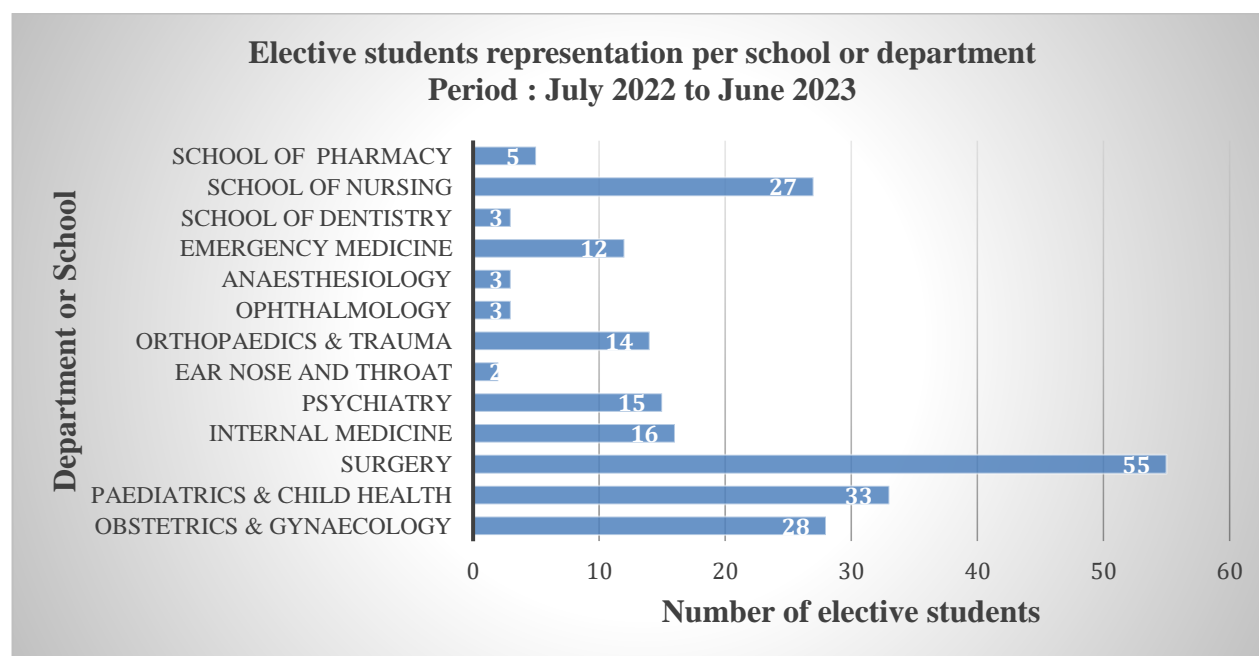
4.19.2.2 MUHAS students' placement in International Universities

Based on the above collaborations and agreements, in the year 2022/2023, the Unit arranged two exchange activities with Uppsala University in Sweden under the Linnaeus – Palme collaborative and Dartmouth College in the USA. The following are the students:

- a) David Muhunzi: Dartmouth College for Internal Medicine and Emergency Medicine rotation
- b) Stella Kaihula: Dartmouth College for Internal Medicine and Emergency Medicine rotation
- c) Alfa Muhule: Uppsala University for Obstetrics, Cardiology, Pediatrics and Emergency Medicine rotation
- d) Asha Mlanzi Uppsala University for Obstetrics, Cardiology, Pediatrics and Emergency Medicine rotation

4.19.2.3 Elective study students in different departments

In the reporting period, the unit received a total of 159 elective students. Some of these students rotated in just one department, but others rotated in more than one department (in the Campus College of Medicine). Within the College, most students rotated in Surgery (55) (Figure 17).



**Some of the students in the Campus College of Medicine rotated in more than one department.*

Figure 17: Total number of elective students in selected departments in the period of July 2022 to June 2023

4.19.2.4 Student Exchange Activities

The ongoing (active) collaborative research and student exchange agreements include:

- i. MUHAS and North South - South Higher Education Network Programme
- ii. Global Education in Medicine Exchange (GEMx); UMCG/FMS – Groningen University, Netherlands
- iii. HAN University of Applied Sciences (School of Nursing)
- iv. Wrights State University
- v. The St. Radboud University College Holland (Community Medicine),
- vi. University of California San Francisco (DCEPD)
- vii. Mie University, Japan (Pediatrics and Child Health); University Medical Centre,

- #### 4.19.2.5 International Students Welcome Ceremony

4.19.2.6 Immigration support for students and staff coming to MUHAS

4.19.2.7 Income Generation

In the 2022/2023 financial year, the unit generated a total of **USD 91,279 and TZS 16,758,300/=** from the student activities.

4.19.3 Convocation Activities

MUHAS has been inviting its alumni for a special assembly one week before MUHAS graduation ceremony as per Almanac. In the past 5 years, such MUHAS convocation events have been conducted mainly as symposia related to health and education. In 2022 the Internationalization and Convocation Unit hosted the 1st ever MUHAS marathon in form of a fun run/walk. The “***MUHAS Reunion Fun Run***” was held on 26th November 2022 under the main theme “**inspiring young people in the health care profession**”, aiming at raising awareness of medical science subjects to the young generation. A total of 400 alumni and friends registered to participate in the event. The event further aimed to rekindle the spirit of togetherness among alumni. On this day, MUHAS alumni, alumni families and friends united where the participants took part in 5 km, 10km, or 15km fun run and walk. The walker/runner was registered at twenty-five thousand TZS (25,000TZS) only. Through selling running kits a total of TZS 8,245,500/= (Eight Million two hundred forty-five thousand five hundred shillings only) was collected. These funds are used for convocation related activities. **Figure 19** shows a group photo of MUHAS management, alumni, family, and friends at the fun run. The event was organized by the Executive Convocation Committee (ECC). A total of four ECC meetings took place in 2022/2023.



Figure 19: MUHAS management, alumni, families, and friends at the fun run.

Appendix I: Donor Funded Research Projects in year 2022/2023

S/N	PI Name	Project Donor/Collaborator	Project Title	Objectives
1	DRP	Sida	Health Research, Training and Innovation for Sustainable Development	To address gap and build sustainable research training capacity by year 2020. During the period 2015 to 2020 MUHAS intends to train 37 PhDs (14 continuing and 23 new), 23 Masters (all new) and 6 post-docs. The six sub-programmes that will host the students include HIV, Malaria& neglected tropical diseases, Reproductive Health, Injuries, Health Systems, and Research Training Support Program.
2	Dr. Pilly Chillo	University of North Carolina	Investigation of rheumatic AF Treatment Using vitamin K antagonists, ribaroxaban or aspirin Studies (INVICTUS)	Investigation of Rheumatic Artrial fibrillation
3	Dr. Mughwira Mwangu/Prof. Gasto Frumence	University of Bergen	NORPART	Strengthen Capacity & Quality of education and research in health economics in the partner institutions of MUHAS & Bergen University

4	Dr. Helga Naburi	World Health Organization	Immediate Kangaroo Mother Care	To reduce neonatal mortality by starting Kangaroo mother care soon after birth
5	Dr. Lilian Mselle	Ethiopia Ministry of Education	MUHAS-Makelle Universities Capacity Building	Training of the PhD nursing students from Mekelle University, Ethiopia
6	Prof Said Aboud	EU/Imperial College of Science, Technology and Medicine	A combination efficacy study in Africa of two DNA-MVA- or DNAEnv protein HIV-1 vaccine regimens with pre-exposure prophylaxis (PrEPVacc)	To establish a cohort of HIV negative individuals who are at risk for acquiring HIV for possible participation in the PrEPVacc HIV preventive vaccine study
7	Prof. Omary Minzi	Karolinska Institute	EDCTP PROFORMA	Pharmacovigilance capacity strengthening in national regulatory authorities of East Africa
8	Prof. Emmanuel Balandya	NIH/Dartmouth College	MUHAS Infectious Disease Institute (MIDI)	To support an infectious disease research and training program to combat HIV and tuberculosis (TB) within the newly established Infectious Disease Institute (IDI) at MUHAS
9	Dr. Rose Mpembeni	Global Fund	Partnership to Enhance Country Analytical Capacity and Data use	To support national HIV, Malaria and TB programmes on key disease specific analyses on a regular basis, and use of the results and analyses to drive actions towards improved program coverage, quality, efficiency and impact

10	Prof. Gideon Kwesigabo	NIH	To Reach the People: Transforming Health Professions Education in Tanzania (THET)	To standardize and deliver competency-based curricula for medical and nursing education across the collaborating institutions so that their graduates can serve Tanzanian people where they are needed most
11	Dr. Nahya Salim	Ifakara Health Institute	ENAP EN-SMILLING	To design structured and simplified ECD measurement approach from birth to the age of 5 years (fixed timing, simpler tools and training) which can be implemented by lower level MNCH workers
12	Dr. Billy Ngasala	University of North Carolina	Trans from Submicroscopic Malaria in Tanzania (TranSMIT)	To determine the transmissibility of asymptomatic malaria to mosquitoes in relation to gametocyte density and genetic complexity in an area transitioning to low malaria endemicity
13	Prof. Ndeserua Moshi	NIH/ Dartmouth College	Novel Pediatric Neurocognitive screen (Pedi Neuro)	To enrol children 3-8 and follow their neurocognitive development with the aim of seeing whether central auditory tests could offer a valuable assessment for the central nervous system effects of HIV infection in children
14	Dr. Elia Mmbaga	NIH/University of California San Francisco	Molecular profiling of esophageal tumor specimens from Tanzania	To describe molecular and genetic susceptibility factors for Esophageal carcinoma in Tanzania

15	Dr. Dickson Mkoka	University of Minnesota	Sexual Health Training for Health Professional Students	To Develop and evaluate the effectiveness of sexual health training for health professional students in Tanzania
16	Prof. Sylvia Kaaya	NIH/North Western University	Building Capacity for Patient-Centered Outcomes Research to Improve the Quality and impact of HIV Care in Tanzania	Training and building Capacity for Patient-Centered Outcomes Research to Improve the Quality and impact of HIV Care in Tanzania
17	Prof. Eliangiringa Kaale	University of Bergen	Muhimbili-Bergen University Partnership to Enhance Pharmacy Education and Research (PEPER), NORPART-2018/10207	To enhance the quality of pharmacy education and research at the two institutions through academic co-operation and mutual student mobility
18	Dr. Salum Lidenge	NIH	Plasma and Cellular Immune Biomarkers of Kaposi's sarcoma in HIV-1 Suppressed Patients	To determine Plasma and Cellular Immune Biomarkers of Kaposi's sarcoma in HIV-1 Suppressed Patients
19	Dr. Siana Nkya	NIH	The role of HbF decline and its determinants on Sickle Cell Disease expression in the first three years of life	To study the role of HbF decline and its determinants on Sickle Cell Disease expression in the first three years of life

20	Prof. Eligius Lyamuya	North Western University	The Centre for Innovation in Point of Care Technologies for HIV/AIDS at Northwestern University (C-THAN)	To validate and establish best practices for innovative POC technologies developed for the diagnosis and management of HIV and HIV-related co-morbidities in “real-world” clinical or public health settings
21	Dr. Ester Steven	Grand Challenge Canada	Violence against Women and Girls in Public Transportation in Dar es Salaam	Understanding and Addressing Violence against Women and Girls in Public Transportation in Dar es Salaam
22	Dr. Helga Naburi	World Health Organization	The follow-up study to evaluate the impact of continuous KMC initiated immediately after birth compared to KMC initiated after stabilization in newborns with birth weight 1.0 to <1.8 kg on their neurodevelopmental outcomes in low-resource setting	To assess the impact of immediate KMC on neurodevelopmental impairment by 2 years of age
23	Dr. Jessie Kazeni Mbwambo	John Hopkins University	Understanding the role of social networks in methadone maintenance treatment retention and antiretroviral therapy adherence among people who use drugs in Tanzania	The main objective of the study is to improve MMT (methadone maintenance treatment) retention and ART (Ant Retro viral Therapy) adherence among MMT patients.

24	Prof. Japhet Killewo	Ku Leuven University	Strengthening and Transdisciplinary Patient Centered Approach for the Prevention of HIV Drug Resistance in Dar es Salaam	To enable MUHAS to perform state-of-the-art research on HIV drug resistance and to develop an HIV drug resistance prevention and intervention model tailored to the specific needs of Tanzania
25	Dr. Frederick Mashili	Vital Strategies Inc.	Assessment of Trans Fat Acid in Street Food and Edible Oil to Spur Action Towards the Elimination of Trans Fat Acids in Tanzania	Assessing Levels Of Trans-Fatty Acids In Street Foods and Edible Oils to Inform and Spur Action to Replace Unhealthy Oils In Tanzania
26	Prof. Andrea Pembe	European Union	Action Leveraging Evidence to Reduce perinatal mortality and morbidity in sub-Saharan Africa (ALERT)	To reduce perinatal mortality and morbidity in sub-Saharan Africa
27	Dr. Clara Chamba	University of Oxford	Evaluation and Transfer of mobile whole slide tissue scanners and liquid biopsies to deliver fast and precise diagnosis for improved outcomes of children and young adults with EBV-driven lymphoma: a joint Tanzanian and Ugandan Paediatric Oncology Network Initiative	To deliver effective diagnostics tools, appropriate for use in sub-Saharan Africa, for the early and accurate diagnosis of infection-related lymphomas

28	Prof. Elia Mmbaga	University of Oslo	Pragmatic Trial for HIV Pre-exposure prophylaxis Roll Out in Tanzania	To evaluate the effectiveness of m-health application in improving adherence to Pre-exposure prophylaxis for HIV prevention among at risk population in Tanzania
29	Dr. Nahya Salim	Ifakara Health Institute	Implementation study to improve the quality of comprehensive newborn care through introduction of the package of Newborn Essential Solutions and Technologies (NEST) in Tanzania	To implement the NEST package for improving delivery of comprehensive newborn care in Tanzania in a phased approach.
30	Prof. Nathanael Sirili	Karolinska Institute	Global Health Course	Conducting course for medical students from Karolinska. Conducted two course; for 23students in January 2016 and another one for 22 students in May 2016
31	Dr. Siana Nkya	ICGEB International	Comparative study of Sickle Cell Disease (SCD) modifiers in Ghana, Nigeria and Tanzania	To conduct a comparative study of fetal hemoglobin and HbF/F cell levels in individuals with SCD in Nigeria, Ghana and Tanzania in relation to genetic haplotypes and clinical manifestation of SCD

32	Prof Sylvia Kaaya	University fo Basel	Using Technology to Facilitate International Research in Diagnosis and Treatment of Boardeline Personality Disorder in Adolescents Including Low- and Middle-Income Countries	
33	Dr. Mrema Kilonzo	Duke University	Acceptability of an Internalized Stigma Reduction Intervention among Women Living with HIV in Tanzania and Rwanda	Adaptation of a theoretically grounded, culturally sensitive, linguistically relevant, gender-specific internalized stigma reduction intervention (<i>Maybe Someday: the Voices of Women Living with HIV</i>) for Tanzanian and Rwandan women living with HIV
34	Dr. Edward Kija	University of Antwerp	Childhood Onset Epilepsies Study	To determine magnitude, genetics and comorbidities of Childhood Onset Epilepsies in Tanzania
35	Prof Karim Manji	WHO	Optimizing place of treatment and antibiotic regimens for young infants presenting with 2 or more signs of clinical severe infection or any single high-mortality -risk sign of clinical infectious. PSBI	To study the non-inferiority of home versus hospital treatment in young infant with PSBI

36	Dr. Jessie Mbwambo/Dr. Linda Mlunde	NIH/RTI	Improving HIV treatment outcomes for people who use drugs	To adapt and pilot a health facility HIV stigma-reduction intervention to address drug use stigma in HIV care and treatment clinics (CTCs) in Tanzania
37	Dr. Fadhlun Alwy	University of Birmingham	E-MOTIVE	1. To evaluate the implementation of the E-MOTIVE intervention on postpartum haemorrhage outcomes 2. To assess the cost-effectiveness of the E-MOTIVE intervention compared with usual care from a public healthcare system perspective. 3. To develop, optimize and manualize an implementation strategy, with parallel process evaluation ready for scaling-up of the E-MOTIVE intervention if found to be effective.
38	Prof. Eliangiringa Kaale	Tanzania Medicines & Medical Device	Moving Tanzania Clinical Ethics and Medicines Regulatory Capacity to the next level: Fostering Medicine Quality and Safety and GCP Clinical Trials (ASCEND)	To foster medicine quality and safety and monitoring clinical trials
39	Dr. Lulu Chirande	Baylor College of Medicine Foundation	Splenic function in sickle cell disease	To characterize splenic immune function in children with SCD and its interaction with malaria

40	Dr. Pilly Chillo	Harvard University	Adapting the World Heart Federation Rheumatic Heart Disease (RHD)	To develop RHD primary and secondary prevention training materials using the World Heart Federation (WHF)'s toolkit and to test the acceptability of integrating an RHD prevention program into Primary Schools in Manyara Region, Tanzania
41	Prof. Andrea B. Pembe	Harvard School of Public Health	Demonstrating Non-Inferiority of Lower dose (500mg) calcium supplementation during pregnancy for reducing pre-eclampsia and neo-natal outcomes	
42	Prof. Elia Mmbaga	Northwestern University	Cancer Research Training Programme (CRTP-TZ)	To recruit a group of research scholars originating from Tanzania and other countries in East Africa who are diverse in discipline and who are likely to build successful academic research careers related to the cancer control science
43	Dr. Renatha Joseph	Uganda National Council	Consortium for Clinical Research Regulation and Ethics Capacity in the Eastern Africa Region (CCRREEA)	To improve research ethics oversight through research ethics training to IRB and develop research ethics information management system.

44	Prof. Julie Makani	NIH	SPARCO Hub	To develop sustainable continent - wide SCD resources for multidisciplinary research that will increase understanding of and improve health outcomes in Africa
45	Dr. Emmanuel Balandya	NIH	SPARCO Clinical Trial	To enhance the quantity and quality of longitudinal data of sickle cell disease (SCD) patients in electronic database, increase the adoption and utilization of SCD standard of care guidelines in Tanzania, enhance the skills of healthcare workers and researchers in care and research on SCD and conduct implementation research and cohort studies on pertinent issues on SCD in Tanzania
46	Prof. Eliangiringa Kaale	United States Pharmacy	Promoting The Quality of Medicines Plus (PQM+)	To conduct landscape surveys for specific products to explore the overall manufacturing, supply chain, manufacturing capability, quality assurance, access to bio-equivalence studies to ensure effectiveness, regulatory approval and control levels at various upstream and downstream distribution channels, and other business factors to identify potential opportunities to increase supply of quality assured essential medical products of public health importance

47	Prof. Andrea Pembe	Clinton Health Access	Reproductive Health Implementation Research (RHIR)	To assess the capacity of health care providers and clients' perspective towards HIUS in the selected health facilities in four selected districts in Tanzania
48	Dr. Agricola Joachim	American Society of Microbiology	Fleming Fund Country Grand 2	Strengthen governance of AMR surveillance with a One Health Approach and sustaining existing support to AMR and AMU surveillance in human health and expand to additional sites
49	Prof. Sylvia Kaaya	University of North Carolina at Chaple Hill	Adolescent Wellness Visits (AWVs)	To assess the feasibility and acceptability of implementing Adolescent Wellness Visits (AWVs) withing two government primary schools matched to nearby public health facilities
50	Prof. Japhet Killewo	Ku Leuven University	Joint KPI	To determine the key performance indicators for improving the last mile in antiretroviral therapy to prevent HIV drug resistance in Tanzania
51	Prof. Hendy Sawe	MAHIDOL Oxford Tropical Medicine	Respiratory and Critical Care Registry	Respiratory and critical illness among patients presenting to hospitals in Tanzania and describe the burden, pattern and outcomes of respiratory and critical illnesses.

52	Dr Nahya Salim Masoud	Ada Health GmbH	Ada Health CWR Evaluation	The broad objective of this pilot study is to evaluate the performance of the suggestions made by the WRA by comparing Ada's differential diagnosis and triage levels to usual care and a gold-standard in a Tanzanian clinical setting
53	Dr. Lulu Chirande	Texas Children Operating	Global HOPE-MUHAS Paediatric Haematology and Oncology Fellowship Programme	To build capacity for diagnosis and treatment of children with cancer and blood disorders so that to improve outcome
54	Prof Simon Mamuya	University of Bergen	Safe Working Conditions By Innovative Research and Education (SAFEWORKERS)	Establish Virtual School of Occupational health
55	Prof Hendry Sawe	NIH/ University of California San Francisco	Fever Aetiology and Prognostic Point-of Care Biomarkers in Africa Children with Severe Febrile Illness	Measuring the prevalence and burden of acute paediatric critical illness and using clinical data, cutting-edge pathogen detection methods, and biomarker POCTs to develop a treatment algorithm for severe febrile illness.
56	Prof. David P Urassa/Prof. Bruno Sunguya	The trustee of the University of pennsylvan	Educating and Developing Bioethicists in Tanzania (ENGAGE)	Training PhD student on Bioethics

57	Prof. Bruno Sunguya	University of Bergen	GROWNUT II	Partnership for higher education and research in nutritional epidemiology - to bring human resource for health in nutritional epidemiology
58	Dr. Deogratias Mzurikwao	Google Ireland	Application of Artificial Intelligence (AI) in Early Detection and Diagnosis of Breast Cancer by using breast ultrasound images and mammography.	To develop an Artificial Intelligence algorithm for remote diagnosis of breast cancer by using breast ultrasound and mammogram images
59	Dr Beatrice Mwilike	Hiroshima University	Development and Evaluation of the Simple & Easy Antenatal Education Using a Mobile Phone Application in Tanzania	Development and Evaluation of the Simple & Easy Personal Health Record Application for midwives and mothers in Dar es Salaam, Tanzania
60	Dr Nahya Salim	The Else Kröner-Fresenius-Stiftung (EKFS) through German Society of Tropical Paediatrics and International Child Health (GTP)	Clinical Neonatology Programme specialization of paediatricians in neonatology at Muhimbili University of Health and Allied Sciences (MUHAS) in Dar es Salaam, Tanzania	Support Masters of Science in Clinical Neonatology

61	Dr. Elisha Osati	National Research Foundation	Engaging Swahili-Speaking Communities to Access Covid-19 Factual Information Through Use of Digital Media	To provide reliable and credible health information on COVID19 in simple Swahili language
62	Prof. Rose Mpembeni	Heidelberg University	Demonstrating service delivery models for effective initiation and retention on PrEP among Barmaids in Dar es Salaam	Testing PrEP Delivery models for Bar Maids in Dar Es Salaam
63	Prof M.T.Leshabari	University of OSLO/NORAD	Strengthening of Doctoral Education for Health in Tanzania (DOCEHTA)	To strengthen doctoral education for health in Tanzania
64	Prof. Gasto Frumence	Billy and Melinda Gates Foundation	African leadership and management Training for Impact in Malaria-eradication (ALAMIME)	To build the leadership and management capacity of managers to support the control and elimination of Malaria in 6 Malaria high burden high impact countries
65	Prof. Billy Ngasala	NIH/University of North Carolina	Importation and transmission of Malaria in Zanzibar	To study transmission dynamics and transportation from malaria in Zanzibar
66	Prof. Elia Mmbaga	NIH/University of California San Francisco	Breast Cancer FNA	To describe the impact of a rapid biomarker assay for determination of hormone receptor status on breast care in a low-resource setting
67	Dr. Doreen Kamori	Kumamoto University	Research Support for Microbiology Department	To support research activities conducted by Microbiology and Immunology Department at MUHAS

68	Prof. Hendry Sawe	Laerdal Foundation	The Magnitude, Aetiology and Outcomes of Patients Presenting with Respiratory and Critical Illnesses in Selected Hospitals in Tanzania	
69	Prof. Bruno Sunguya	Touch Foundation Tanzania LTD	Mobilizing Maternal Health- End Line Evaluation	
70	Prof. Karim Manji	The World Health Organization	Nutritional Management of Moderate Wasting in Children 6-26m of Age with acute illness	To evaluate the efficacy of locally available foods (LAF) or microbiota directed supplementary food (MDSF) compared to RUSF, when given to moderately wasted children presenting to health facilities with an acute illness, on initial anthropometric recovery (within 12 weeks of enrolment) and sustained recovery (at 24 weeks after enrolment)
71	Dr. Joseph Otieno	COSTECH Research Funds	Upgrading Instrumentation for Herbal Formulation Research Training Laboratory at MUHAS to Spearhead Industrialization	To scaleup production of standard herbal products

72	Abdallah Zakaria	COR-NTD through ARNTD	Development and validation of dried urine spot method for detection of <i>Schistosoma</i> circulating antigens from a resource limited archetype in Tanzania	To develop a simple and efficient method for the collection, storage, and detection of <i>S. mansoni</i> CCA using urine spotted onto filter paper and validate its clinical applicability.
73	Hamu Mlyuka	European and Developing Countries Clinical Trials Partnership (EDCTP)	EDCTP Clinical Research and Product Development Fellowship	To strengthen skills of the fellow (Hamu Joseph Mlyuka) on approaches to pharmacology aspects of clinical trial design, operational planning, conducting, management and scientific reporting through clinical trial training placement at St. Andrews University, and partners from the SimpliciTB clinical trial consortium and Pan-African Consortium on Evaluation of Antitub
74	Dr. Edwin Kayombo	University of Abardeen	Developing Effective Rodent Control Strategies to Reduce Disease Riskin Ecologically and Culturally Diverse Rural Landscapes	To reduce the risk from rodent-borne infections (RBI), and improve health and well-being, by increasing the capacity to develop rodent-control measures that are applicable, sustainable and resilient given local ecological, epidemiological, agricultural and socio-cultural contexts
75	Prof. Bruno Sunguya	WRAIR-DOD	DQA In Southern Highlands regions	To conduct DQA in five southern highlands' regions and armed forces facilities

76	Dr. Dickson Mkota	Stitching Hanzenhoge School Groning	Health Literacy competencies to improve respectful compassionate care in Tanzania(HEALCARE)	To train students on health literacy, customer care and compassionate respectful care
77	Prof. Bruno Sunguya	ICAP- Columbia University	Biobehavior survey among key populations for HIV	To determine magnitude of HIV, HBV, HCV, and Syphilis as well as to determine progress of HIV programming among key populations in selected regions
78	Prof. Muhammad Bakari	NIH/Harvard University	HIS: Training Tanzanian Researchers for HIV/AIDS Implementation Science	
79	Prof. Hendry Sawe	NIH/UCSF	University of California Lauching Future Leaders in Global Health Research Training Program	Providing aspiring global health researchers with outstanding interdisciplinary education and training in innovative research to improve health for population around the world
80	Prof. Hendry Sawe	Liverpool School of Tropical Medicine	Multimorbidity-Associated Emergency Hospital Admissions: A “Screen and Link” Strategy to Improve Outcomes for High-Risk Patients in Sub-Saharan Africa	To design and test a system which identifies patients suffering from multimorbidity during emergency assessment in sub-Saharan African hospitals, optimises immediate treatment, and ensures post-discharge linkage to appropriate care.

81	Prof. Progestine Muganyizi	London School of Hygiene & Tropical Medicine	Tranexamic acid for reducing postpartum bleeding in women with anaemia: An International Randomized Double-Blind, Placebo Controlled Trial (Woman-2 Trial)	To answer the question of whether tranexamic acid (TXA) can be used effectively to prevent postpartum haemorrhage in women with moderate to severe anaemia
82	Prof. Bruno Sunguya	NIH/UCFS	Programatic Assessment to Inform The Scaling up of U=U Intervention and COVID-19 Vaccine Uptake among People Living with HIV and Health Care Workers in CDC-Supported HIV Care and Treatment Centers in Tanzania.	To undertake a rapid programmatic assessment to inform data-driven strategies to scale-up Undetectable=Untransmittable (U=U) promotion and uptake of COVID-19 vaccination in Tanzania
83	Dr. Nahya Salim	London School of Hygiene & Tropical Medicine	EN - REACH; Every New Born - Reach up Early Education Intervention for all Children in Bangladesh, Nepal and Tanzania	EN-REACH (Every Newborn - Reach up Early Education intervention for All CHildren) and builds on a previous observational cohort study EN-SMILING, it will evaluate the impact and implementation of a pre-school parenting program aimed at improving school readiness in Bangladesh, Nepal & Tanzania

84	Prof. Larry Akoko	UCSF	Explolatory Laparatomy Outcomes for Surgical Quality Improvement at Tetiary Care Facility in Tanzania (EX-LAP)	To create a system of quality improvement that will provide important information to both the department of surgery at Muhimbili University for Health and Allied Sciences and the Ministry of Health in the monitoring of the National Surgery Obstetric and Anesthesia Plan
85	Dr. Billy Ngasala	Uppsalla University	Malaria Culture	To prolong therapeutic efficacy of first line drug for Malaria in East Africa
86	Dr. Tim Baker	UK NIHR -Queen Mary University of London	NIHR Global Health Group on Perioperative and Critical Care (GHRUG)	To determine the hospital point prevelance and mortality rates of adult patients with critical illness in hospitals in Africa
87	Prof. Bruno Sunguya	UN Women	Violence Against Women (VAWo)	To examine the burden, characteristics, and factors associated with Violence Against Women and Girls in the five selected regions of Tanzania's mainland
88	Prof. Andrea Pembe	Clinton Health Access Initiative Inc	Operational Research on the Barriers and Enablers on H-IUD Provision and Uptake Based on the perspectives of Health Care Providers and Tanzania Women (IUS CHAI)	An operational research in Dodoma MC and Ilala MC in Tanzania to extract contextualized insights that can inform the introduction and scale-up of Hormonal Intrauterine Devices.

89	Dr. Hussein Mohamed	NIH/UCSF	Factors Associated with Vulnerability and Response Preparedness to Ebola Virus Disease in four High Risk Regions in Tanzania and Zanzibar	
90	Prof. Lilian Mselle	Laerdal Foundation (“LF”)	Essential Coaching for Every Mother (ECEM)	To develop and refine (Phase I) and evaluate (Phase II) an mHealth, text message intervention called <i>Essential Coaching for Every Mother</i> to improve mothers’ access to essential newborn care education during the immediate 6-week postnatal period.
91	Dr. Caroline Ngimba	Fogarty International Centre of the National Institute of Health (NIH) and University of California Global Health Institute (UCGHI)	Implementing primary high-risk HPV testing for cervical cancer screening in Regional Care and Treatment Clinics for women living with HIV in Tanzania	To evaluate the facilitators and barriers for adopting primary hrHPV testing as cervical cancer screening modality among WLHIV receiving care at the CTCs in regional referral hospitals in Dar es salaam. To develop an intervention strategy for implementing primary hrHPV testing as cervical cancer screening method for women living with HIV (WLHIV) at the CTCs based on information from formative evaluation

92	Dr Zuhura I. Kimera	NIH/Dartmouth College	The magnitude of contamination and risks of exposure to antiretroviral drugs in animals, animal feeds and environmental	To investigate the use of ARV in animal farming and the factors associated with ARV use. In addition, the study will investigate the likelihood of environmental exposure to ARV drugs and the presence of ARV residues in animal tissues, feed and the environment.
93	Dr Sabina Mugusi	Ifakara Health Institute	Optimizing Maternal Health via Innovative Trial Design and Multi-Omics	To understand the pharmacokinetics and identification of the optimal dose of vitamin B12 in pregnancy in Tanzania.
94	Dr. Deogratias Mzurikwao	Ifakara Health Institute	Establishment of Machine Learning Datasets for Better Healthcare Outcomes: A focus on rabies	To develop machine learning datasets for rabies diagnosis and outbreak prediction and the assessment of case detection
95	Dr. Ahlam Nassar	The American Society	Cytogenetic and Mutation Analysis of Chronic Myeloid Leukemia patients (CML) in Tanzania	To determine the cytogenetic and molecular predictors of treatment responses among CML patients in Tanzania
96	Dr. Atuganile Malango	NIH/ University of California San Francisco	Glocal Health Fellowship	

97	Prof. Julie Makani	WHO	Dr. Lee Jong- Wook memorial prize award to Sickle Cell Programme for public health 2020	To contribute to the ongoing work of the Sickle CHARTA in Tanzania, which is an innovative multidisciplinary approach to improving health outcomes that involves health research, training and advocacy
98	Prof. Karim Manji	Tampereen Korkeakoulusa	Extended Support Package for Birth Weight Measurement	Support of proper gadgets, training and daily calibration of weighing machines improves birth weight measurements.
99	Dr. Hussein Mohamed	UNICEF	Factors Associated with Vulnerability & Response Preparedness to Ebola Virus Disease in Four high Risk Region in Tanzania and Zanzibar	
100	Dr. Enica Richard	GIZ	Universal Hearing Screening in Tanzania	Training Health professionals on Newborn Hearing screening
101	Prof. Gasto Frumence	WHO	Capacity Building on Planning and Management for Zanzibar DHMTs	

102	Dr. Clara Chamba	GERMANY-IWCLL	Support Research Mentorship and Training in the State of the Art Management	Development of treatment guidelines for CLL, development of SOP for flow cytometry, training on Flow cytometry, build research capacity through training of one research fellow in CLL, TP53 mutation analysis and IgHV mutation status in CLL patients.
103	Dr. Maryam Amour	NIH	A New Method for Active Tuberculosis Case Finding	Aim of this study is to determine the proportion of persons with TB disease among household and other close contacts of adolescents with TB infection
104	Dr. Dorothy Mushi	University of Washington	Adaptation and Pilot Test of the NAMWEZA Psychosocial Intervention for People who use drugs and living with HIV	Adaptation and Pilot Test of the NAMWEZA Psychosocial Intervention for People who use drugs and living with HIV
105	Prof. Andrea Pembe	George Mason University	Gestational Weight Gain Pilot Study	To evaluate the perspectives and practices related to GWG among pregnant women, household members, and antenatal healthcare providers in Tanzania
106	Manase Kilonzi	EAC RCE VIHSCM RESEARCH GRANTS	Factors Influencing Access to Life saving Medicines for Insect and Animal Envenomation victims in Tanzania	To assess the number of cases and deaths caused by insect and animal envenomation, To assess the availability of life-saving medicines at the public health facilities in Mkinga district of Tanzania.

107	Dr. Edward Kija	WHO	Global Scales of Early Development (GSED)	To develop norms and standards for children less than 3 years old
108	Dr. Khadija Malima	Sida	CAL Rehabilitation of Sick Cell Related Stroke in Children	To demonstrate the feasibility of neurophysiological rehabilitation of children with sickle cell-related stroke using innovative information communication and technology-based tools within the physiotherapy unit of Muhimbili national hospital.
109	Dr. Nathanael Sirili	Abbot Fund Tanzania	MUHAS Abbot	To assess the implementation of village model at Bantu, validate the baseline information at Kikombo, Ihumwa and Igogwe, design and improve version of the village model for emergency health care services provision and develop a revised implementation plan of the village model for Ihumwa and Igogwe.

110	Samson Hilonga	World Wild Fund (WWF)	Assessment of CSO and Communities Capacity in Improving Social- Economic Conditions to the Adjacent Communities Participating in FLR	To undertake household socio-economic survey to identify, assess and evaluate existing livelihood options. To assess the number of people (gender segregated) benefiting from the FLR interventions (Conduct a community assessment survey (opinion polls to find out the number of people benefitting from forest resources)
111	Dr. Deogratias Mzurikwao	Infectious Disease Institute	Application of Artificial Intelligence (AI) in Screening of Tuberculosis (TB) Among People Living with HIV	To develop AI algorithm for detection of TB among people living with HIV
112	Dr. Enica Richard	Depository Account (DARDAR)	Advancing and Applying Peripheral and Central Auditory Findings in HIV/AIDS (New Adult Hearing)	

113	Dr. Nahya Salim	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH via Universitätsklinikum Hamburg-Eppendorf	Microbial Surveillance and Gut Microbiomics in Neonatal Sepsis in Tanzania (MS-GM-NST study)	
114	Godwin Pancras	The University of Rwanda (UR), East African Community Regional Center of Excellence for Vaccines, Immunisation, and Health Supply Chain Management (UR EAC RCE-VIHSCM)	Access to COVID-19 Vaccine Information Among Rural Communities in East Africa	To assess the access to COVID-19 vaccine information among people residing in selected rural communities in Tanzania and Kenya
115	Prof. Gideon Kwesigabo	Johns Hopkins University	Johns Hopkins University, Tanzania Red Cross Society and Muhimbili University School of Public Health and Social Sciences Education and Mentoring Program On Surgical Work, Research, and Rehabilitation in Tanzania (D43 EMPOWER TZ)	Strengthen and develop new research training in Surgical Science, Rehabilitation and Humanitarian Health

116	Dr. Sarah Nyagabona	Conquer Cancer Foundation	A grounded theory approach to understand the impact of HIV infection on health seeking behaviors of women with breast cancer	Aim 1: To explore the lived experiences of WLHIV with BC, including barriers and facilitators to treatment adherence during concurrent multi-modality care. Aim 2: To explore healthcare providers' perceptions on factors affecting the provision of care for BC in WLHIV.
117	Prof. Bruno Sunguya	European Union-Horizon 2020	Promoting co-designed sustainable health interventions with young changemakers for reduced risk of noncommunicable diseases (NCDs) in urban Burkina Faso, Kenya and Tanzania	To implement & evaluate a sustainable health intervention program on health, nutrition, & environmental outcomes for the primary prevention of adolescent obesity & related non-communicable diseases (NCDs) together with adolescents in three rapidly urbanizing cities in Burkina Faso, Kenya, Tanzania
118	Prof. Bruno Sunguya	Canadian Institute of Health Research (CIHR) STOP NCD	Scaling up evidence-based health system interventions Through the use of sustainable healthcare financing and digital technology Platforms to improve Non-Communicable Disease prevention and control in Tanzania	Scaling up evidence-based health system interventions Through the use of sustainable healthcare financing and digital technology Platforms to improve Non-Communicable Disease prevention and control in Tanzania

119	Prof. Bruno Sunguya	Global Fund, NACP (MoH)	Pre-treatment HIV Drug Resistance survey (PDR) including PDR among PrEP recipients	To assess the feasibility of implementing laboratory-based survey of acquired HIVDR using remnant samples in Tanzania.
120	Prof. Bruno Sunguya	Global Fund, NACP (MoH)	Evaluation of Multi-Month ART Scripting among Stable HIV-Infected	To evaluate MMD implementation at selected health facilities in Tanzania
121	Prof. Pilly Chillo	Leducq Foundation	Preventing Rheumatic Injury Biomarker Alliance	To identify accurate molecular biomarkers for ARF and design a point of care diagnostic tool for early ARF diagnosis
122	Prof. Pilly Chillo	European Union	Trustworthy Artificial Intelligence for Personal Risk Assessment in Chronic Heart Failure	To create, develop and validate a trustworthy AI for risk assessment in HF patients
123	Prof. Emmanuel Balandya	Makerere University	Sickle Cell Disease Dissemination	Sickle Cell Disease and COVID-19 data capture, management, extraction and data transfer to AFREhealth Data Coordinating Center
124	Prof. Andrea B. Pembe		Testing Dosage of Iron in MMS for Anaemia Prevention	
125	Dr. Nahya Salim		Eastern African Forgarty Fellows Research Symposium and Workshop	
126	Hamu Mlyuka	EDCTP	Tropical Health and Education Trust (THET)	

127	Prof Karim Manji		Zinc Trial	
128	Prof Karim Manji	Billy and Melinda Gates Foundation/Harvard University	Preterm infant hospital feeding/lactation support study- LIFT UP	To generate evidence to improve feeding and growth outcomes among low birthweight and preterm infants in the neonatal intensive care unit (NICU)
129	Dr Felix Sukums		Development of Operationalization and Sustainability Plan of the Centre for Digital Health (CDH) of the Ministry of Health in Tanzania	A12B3;G132

Appendix II: Summary of papers published by staff during January to December 2022

During the reporting period the University developed/ produced a total of 632 publications of these 286 Journal articles, 451 Thesis and Dissertations and 2 books as summarized in table 54 below:

Table 53: Summary of papers published by staff during January to December, 2022

S/NO	AUTHOR	TITLE
1	Abdallah, F., John, S.E., Hancy,	Prevalence and factors associated with anaemia among pregnant women attending reproductive and child health clinics in Mbeya region, Tanzania. <i>PLOS Global Public Health</i> . Vol 2(10).
2	Abioye, A.I., Sudfeld, C.R., Michael D., <i>et. al...</i> (2022).	Iron status among HIV-infected adults during the first year of antiretroviral therapy in Tanzania. <i>HIV Med</i> .
3	Aboud S., Buhalata S.N., Onduru O.G., <i>et. al...</i> (2022).	Antimicrobial Susceptibility Testing Patterns of Neisseria gonorrhoeae from Patients Attending Sexually Transmitted Infections Clinics in Six Regions in Tanzania. <i>Trop Med Infect Dis</i> . Vol 7(6). Doi: 10.3390/tropicalmed7060089.
4	Abraham, Z. S., Bukanu, F., Kahinga, A.A. (2022).	A missed giant rhinolith retained for a decade in a paediatric patient at a zonal referral hospital in Central Tanzania: Case report and literature review. <i>International Journal of Surgery Case Reports</i> , 99, 107622. Doi: 10.1016/j.ijscr.2022.107622.
5	Abraham, Z.S., Ngimba C.P., Malango, A.E., <i>et. al...</i> (2022).	Human papillomavirus-related carcinoma with adenoid cystic-like features of the sinonasal tract: Case report and literature review. <i>International Journal of Surgery Case Reports</i> . 1;97:107.
6	Abraham, Z.S., Kahinga, A.A. (2022).	Role of Perioperative Intravenous Dexamethasone in Management of Post Adenotonsillectomy Morbidity: A Single Blinded Randomised Controlled Study. <i>EA Health Research Journal</i> , 6(1), 39-42. Doi: 10.24248/eahrj.v6i1.677
7	Ahamada, H., Sunguya, B.F., (2022).	The Burden of Undernutrition and Its Associated Factors among Children below 5 Years of Age in Bambao Region, Comoros. <i>Front Nutr</i> . 26; 9:885002. Doi: 10.3389/fnut.2022.885002.
8	Akan, G., Nyawawa, E., Nyangasa, B., <i>et. al...</i> (2022).	Emerging role of circANRIL expression in peripheral blood mononuclear cells as a promising liquid biopsy diagnostic biomarker for coronary artery disease.
9	Akan, G., Nyawawa, E., Nyangasa, B., <i>et al...</i> (2022)	Emerging Role of circANRIL Expression in Peripheral Blood Mononuclear Cells as a Promising Liquid Biopsy Diagnostic Biomarker for Coronary Artery Disease. <i>Cardiovascular Pathology Journal</i> . Doi: 10.21203/rs.3.rs-1300387/v1

10	Akoko, L.O., Rutashobya, A.K., Lutainulwa, E.W., <i>et. al...</i> (2022). Tanzanian women: A case control study. <i>PloS one</i> .	The effect of reproductive, hormonal, nutritional and lifestyle on breast cancer risk among black Tanzanian women: A case control study. <i>PloS one</i> .
11	Alexander, M., Ally, M. (2022).	Challenges in the management of patients with cancer of the Esophagus at Muhimbili National Hospital, Dar es Salaam. <i>Journal of Annals of Medical health sciences and research</i> .
12	Alphonse, I. M., Ester, I., Kerstin, A., <i>et. al...</i> (2022).	Safety evaluation and bioassay-guided isolation of antimycobacterial compounds from <i>Morella salicifolia</i> root ethanolic extract. <i>Journal of Ethnopharmacology</i> . (296) 115501.
13	Alwy, A.F., Ulrika, B., Kakoko, D., <i>et. al...</i> (2022).	Health workers' perceptions of the implementation of Helping Mothers Survive Bleeding after Birth [HMS BAB] training in Tanzania: a process evaluation using the i-PARIHS framework. <i>BMC Health Services</i> . Vol.22(1240)
14	Ambikapathi, R., Irema, I., Lyatuu, I., <i>et. al...</i> (2022).	Gender and Age Differences in Meal Structures, Food Away from Home, Chrono-Nutrition, and Nutrition Intakes among Adults and Children in Tanzania Using a Newly Developed Tablet-Based 24-Hour Recall Tool. <i>Curr Dev Nutr</i> . Vol 6(3).
15	Amour, M.A., Rees, C.A., Munseri, P.J., <i>et. al...</i> (2022).	Serial T-SPOT.TB responses in Tanzanian adolescents: Transient, persistent and irregular conversions. <i>PLoS ONE</i> . Vol 17(6). Doi: 10.1371/journal.pone.0268685
16	Amour, M., Sangeda, R. Z., Kidenya, B. (2022).	Adherence to Antiretroviral Therapy by Medication Possession Ratio and Virological Suppression among Adolescents and Young Adults Living with HIV in Dar es Salaam, Tanzania. <i>Tropical Medicine and Infectious Disease</i> . Vol 7 (4):52. Doi: 10.3390/tropicalmed7040052
17	Amour, M.A., Shayo, G.A., Matee, M.M., <i>et. al...</i> (2022).	Predictors of mortality among adolescents and young adults living with HIV on antiretroviral therapy in Dar es Salaam, Tanzania: a retrospective cohort study. <i>Journal of the International AIDS Society</i> , Vol.25 (2). Doi: 10.1002/jia2.25886
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19	Andersen, C., Duggan, C., Manji, K., <i>et. al...</i> (2022).	Iron supplementation and paediatric HIV disease progression: a cohort study among children receiving routine HIV care in Dar es Salaam, Tanzania. <i>International Journal of Epidemiology</i> . Vol.51 (5), 1533–1543. Doi: 10.1093/ije/dyac017
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23	Asefa, A., Dossou, J.P., Hanson, C., <i>et. al...</i> (2022).	Methodological reflections on health system-oriented assessment of maternity care in 16 hospitals in sub-Saharan Africa: an embedded case study. <i>Health Policy and Planning</i> . Vol. 37(10).
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26	Azabo, R., Mshana, S., Matee, M., <i>et. al...</i> (2022).	Antimicrobial usage in cattle and poultry production in Dar es Salaam, Tanzania: <i>pattern and quantity BMC veterinary research</i> . Vol. 18 (1).
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