

**GLOBAL HEALTH ALLIANCE  
WESTERN AUSTRALIA**

**CUSTOMISE SUPPORT PACKAGE TO  
TWO HEALTH TRAINING INSTITUTIONS**



**GHAWA - TANZANIA PROJECT 2011-2013**

**MOH&SW ADVANCED PRACTICE MIDWIFERY SCHOOL  
AND  
FACULTY OF NURSING IN HUBERT KAIRUKI MEMORIAL UNIVERSITY**

**APPLICATION TO AUSAID**

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## ACRONYMS

Acronyms	Meaning
AIDS	Acquired Immune Deficiency Syndrome
AIHA	American International Health Alliance
AHPRA	Australian Health Practitioner Regulation Agency
APMS	Advanced Practice Midwifery School
AMO	Assistant Medical Officer
AMOTC	Assistant Medical Officer Training Centre
AMS	Advanced Diploma in Midwifery School
ANC	Ante Natal Care
APHTA	Association of Private Health Facilities in Tanzania
BOD	Burden of Disease
BSc	Bachelor Science
BSN	Bachelor of Science, Nursing
BUCHS	Bugando College of Health Sciences
CA	Clinical Assistants
CATCs	Clinical Assistant Training Centres
CBO	Community Based Organisation
CCHP	County Comprehensive Health Plan
CDC	Centre for Disease Control and Prevention
CDC GAP	Centers for Disease Control and Prevention Global AIDS Program
CE	Continuous Education
CHA	Christian Health Association
CHI	Church Health Institute
CHMT	County Health Management Team
CIDA	Canadian International Development Agency
CO	Clinical Officer
CORDAID	Catholic Organisation for Relief and Development Aid
COSTECH	Commission of Science and Technology
COTC	Clinical Officer Training Centre
CPD	Continuous Professional Development
CRP	Civil Reform Program
CRT	Council Reform Team
CSSC	Christian Social Service Commission
DANIDA	Danish International Development Agency
DAP	Director of Administration and Personnel
DDH	District Designated Hospital
DHMT	District Health Management Team
DHR	Department of Human Resources, MOH&SW
DHRD	Director of Human Resource Development
DMO	District Medical Officer
DoH	Department of Health (WA)
DOTS	Directed Observed Treatment System
DP	Development Partners
DPP	Department of Policy and Planning, MOH&SW
EC	European Commission
EN	Enrolled Nurse
FBO	Faith Based Organisation
FGD	Focus group discussion
FUCHS-T	Forum of Universities and Colleges of Health Sciences in Tanzania
GFATM	Global Fund for AIDS, Tuberculosis and Malaria
GFH9 HSS	Global Fund Round 9 HSS Grant
GFTAM	Global Fund TB AIDS and Malaria
GHAWA	Global Health Alliance Western Australia
GNI	Gross National Income
GoT	Government of Tanzania
GTZ	German Technical Cooperation
HBF	Health Basket Fund
HC	Health Centre
HF	Health Facility
HIV	Human Immune-deficiency Virus
HKMU	Hubert Kariuki Memorial University
HR	Human Resources
HRD	Human Resources Development

Acronyms	Meaning
HRH	Human Resources for Health
HRHS	Human Resources for Health Scale-up
HRHSP	Human Resource for Health Strategic Plan
HRIS	Human Resource Information System
HRM	Human Resource Management
HRSA	Health Resources and Services Administration
HSPS	Health Sector Program Support
HSS	Health System Strengthening
HSSP	Health Sector Strategic Plan
HTI	Health Training Institute
HWI	Health Workforce Initiative
IAHS	Institute of Allied Health Sciences
IAU	International Association of Universities
ICT	Information Communication and Technology
IMA	Interchurch Medical Assistance
IMR	Infant Mortality Rate
IMTU	International Medical and Technological University
INC	Ifakara Nursing College
I-TECH	International Training and Education Center for Health
IUCEA	Inter University Council of East Africa
JLI	Joint Learning Initiative
KCMC	Kilimanjaro Christian Medical College
KFW	Kreditanstalt fuer Wiederaufbau
LDP	Leadership Development Program
LGA	Local Government Authority
LGCDG	Local Government Capital Development Grant
LGRP	Local Government Reform Program
LogFrame	Logical Framework
M and E	Monitoring and Evaluation
MCH	Maternal Child Health
MMHEN	Mission Mikocheni Health and Education Network
MIU	Mikocheni International University
MMAM	Mpango wa Maendeleo wa Afya ya Msingi (Primary Health Care Services Development Program)
MD	Medical Doctor
MDG	Millennium Development Goal
MMR	Maternal Mortality Rate
MNH	Muhimbili National Hospital
MO	Medical Officer
MOI	Muhimbili Orthopaedic Institute
MoF	Ministry of Finance
MOH&SW	Ministry of Health and Social Welfare
MPH	Master Public Health
MSH	Management Sciences for Health
MSN	Mikocheni School of Nursing
MTEF	Medium-Term Expenditure Framework
MUHAS	Muhimbili University of Health and Allied Sciences
N/M	Nurse Midwife
N/O	Nursing Officer
NACP	National AIDS Control Program
NACTE	National Council for Technical Education
NGO	Non-Government Organisation
NHIF	National Health Insurance Fund
NMTC	Nurse Midwife Training Centre
NSGRP	National Strategy for Growth and Reduction of Poverty
NSSF	National Social Security Fund
NTC	Nurse Training Centre
NTLP	National TB Leprosy Program
NTS	Nurse Training School
Nuffic	Netherlands Organisation for International Cooperation in Higher Education
OD	Organisational Development
ODA	Official Development Assistance
OPD	Outpatient Department
ORCI	Ocean Round Cancer Institute
PBL	Problem Based Learning
PEPFAR	President's Emergency Plans for AIDS Relief

Acronyms	Meaning
PER	Public Expenditure Review
PFP	Private For Profit
PHC	Primary Health Care
PHCSDP	Primary Health Care Services Development Program
PLWHA	People Living With HIV and AIDS
PM	Project Manager
PME	Planning Monitoring and Evaluation
PMO-RALG	President Ministers Office Regional Administration Local Government
PMTCT	Prevention Mother To Child Transmission
PO-PSM	President's Office of Public Service Management
PPP	Public Private Partnership
RC	Roman Catholic
RHMT	Regional Health Management Team
RMO	Regional Medical Officer
RN	Registered Nurse
RNE	Royal Netherlands Embassy
SDC	Swiss Agency for Development and Cooperation
SIDA	Swedish International Development Agency
STI	Sexually Transmitted Disease
SWAP	Sector Wide Approach
TAPU	Tanzania Association of Private Universities
TB	Tuberculosis
TCP	The Capacity Project
TCU	Tanzania Commission for Universities
TEA	Tanzania Education Authority
TFR	Total Fertility Rate
TGPSH	Tanzania German Program to Support Health
TGS	Tanzania Government Scale
TN	Trained Nurse
TNMC	Tanzania Nurses and Midwives Council
TOR	Terms of Reference
TRA	Tanzanian Revenue Authority
U5MR	Under 5 Mortality Rate
UN	United Nations
USAID	United States Agency for International Development
USD	United States Dollars
VA	Voluntary Agency
WA	Western Australia
WB	World Bank
WHO	World Health Organisation
ZHRC or ZTC	Zonal Health Resource Centre or Zonal Training Centre (applies 5to the same institution)
ZTC	Zonal Training Centre

## EXECUTIVE SUMMARY

Global Health Alliance Western Australia (GHAWA) is a unique alliance of professional leaders from the West Australian (WA) health care industry that includes the professional registration board, universities and health services, with the view to lead WA nursing and midwifery in global health agendas. The commitment of all parties form a robust structure that is well supported and represented by the WA nursing and midwifery networks, and further have ministerial support at local and in-country level.

The purpose of this report is to provide a concise and detailed proposal to AusAID seeking financial assistance to support the GHAWA's initiative concentrating in Tanzania. The initiatives are aligned with the Millennium Development Goals (MDGs), in particular MDG 4: reducing child mortality and MDG 5: improving maternal health. Thereby aiming to improve maternal and child health indicators through the proposed programs identified in the document, that is:

- Supporting the provision of nursing and midwifery education in Tanzania to scale up the human resource capacity by educating prospective nurses and midwives, and further up-skill existing academic experts. In doing so this increases capability and improves sustainability;
- Supporting the provision of text books and infrastructure redevelopment;
- Strengthening the clinical mentorship capacity of nurses and midwives;
- Contributing to skills laboratory education and development; and
- Improving access to emergency obstetric care hospital facilities and improved public health care services.

The GHAWA Tanzania project is a customised support package focusing on two primary locations, the Ministry of Health and Social Welfare Advanced Practice Midwifery School (public sector) and the Faculty of Nursing in Hubert Kairuki Memorial University (private sector).

Responding to AusAID feedback, the report identifies an analysis of the current status of the Tanzanian health education support requirements and the international support networks presently available. It also sets out GHAWA's strong commitment to Tanzania for 2011 to 2013, highlighting objectives and activities, modalities for assistance, a clear budget proposal and the timeframe for delivering outcomes.

Tanzania/Australia/Netherlands  
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## 1.0 INTRODUCTION

### 1.1 Background

The Global Health Alliance Western Australia (GHAWA) was formed in 2009 and embraces a unique partnership of 5 Western Australian nursing and midwifery education providers; Curtin University, Edith Cowan University, Murdoch University, Notre Dame University, and the University of Western Australia, working in collaboration with the Department of Health (DoH), Western Australia.

The GHAWA initiative is still in its early stages of development. The GHAWA was inaugurated in February 2010 and is supported by the Government of Western Australia, through the Minister of Health, with oversight from the Chief Nurse and Midwifery Officer and collaborative input from professional leaders in the university partnership, the Australian Health Practitioner Regulation Agency and the WA Health Services. The role of GHAWA is to assist in the facilitation of nursing and midwifery involvement through education, training, and health system capacity building in a partnership model with host developing countries. GHAWA is a newly developed strategic partnership for transcultural health improvement, including a specific intent to assist developing countries in promoting maternal and child health through enhanced capability and capacity in the nursing and midwifery workforce. A long-term vision (2010-2020) of GHAWA is to become part of the World Health Organisation (WHO) network of Collaborating Centres and to contribute – as an alliance of universities - to the international health agenda.

GHAWA developed as a culmination of a series of international meetings, in turn underpinned by an Australian Commonwealth commitment to international cooperation. The then Federal Minister for Foreign Affairs, Stephen Smith, met with his counterpart, Minister for Foreign Affairs and International Cooperation of the United Republic of Tanzania (Tanzania), Bernard Membe in May 2009. Mr. Membe's visit was seen as a milestone in Australia's relationship with Tanzania, being the first visit to Australia by a Tanzanian Foreign Minister since 1989. An outcome of the Perth visit was that Minister for Health Dr Kim Hames led a reciprocal delegation to Tanzania in August 2009. Both countries explored ways in which Australia could provide tangible assistance to Tanzania in the area of maternal and child health. This resulted in the development of the GHAWA initiative and in an agreement that AusAID would support GHAWA with an initial grant of \$ 1 million for a two-year period.

In July 2010 GHAWA submitted a proposal to AusAID. This proposal was appraised and resulted in a revised proposal which was submitted in February 2011. The appraisal of the second version indicated that more clarification was required (AusAID Feb. 2011). In the period 12<sup>th</sup>-19<sup>th</sup> March 2011, an ETC Crystal consultant and the GHAWA Program Director worked together in Dar es Salaam on scoping the revision of the proposal (Annex 1). This was done in consultation with key stakeholders based in Tanzania (Annex 10 and 11). In the weeks thereafter, the new version of the proposal was prepared.

### 1.2 Development context in Africa

The AusAID document “Looking West: Australia's strategic approach to aid in Africa 2011-2015” (December 2010) provides an outline of the development context in Africa to which AusAID would like to contribute. The following paragraphs (in section 5.2 and 5.3) are extracted from the AusAID strategic document.

Among all regions of the world, Sub-Saharan Africa is furthest from reaching the MDGs. Some 400 million Africans—almost half of Africa's population—live in absolute poverty, on less than US\$ 1.25 a day. Even before the global financial crisis, most Sub-Saharan African countries were well below the trend needed to halve poverty by 2015. Achieving the Millennium Development Goals (MDGs) has been an absolute challenge for many countries in Sub-Saharan Africa.

Progress has been particularly slow on reducing poverty and hunger (MDG 1), improving health, notably for women and children (MDGs 4, 5, and 6) and improving access to clean water and sanitation (MDG 7). The 10 countries with the least progress in the world towards reducing infant mortality (MDG 4) are in Sub-Saharan Africa: 1 in 6 children in Sub Saharan Africa dies before the age of five. The Horn of Africa in particular has some of the world's starkest indicators for child and maternal mortality and poor overall maternal and child health. Some 40% of people living in Sub-Saharan Africa lack access to safe drinking water. Gender equality is also of concern with fewer female students than males advancing to secondary and tertiary education. Employment opportunities for women are also limited.



Many African governments and institutions have launched ambitious plans to tackle poverty. In July 2010, African Heads of Government launched a campaign to tackle maternal and child health issues by reaffirming their commitment to allocating 15% of national budgets to health. These countries also want to promote a more stable economic, social and political environment to encourage investment and support sustainable development. Without this, halving absolute poverty and achieving the other MDGs in a reasonable timeframe is unattainable. In addition, African countries recognize the need to develop their human resources to underpin and sustain these efforts, and harness their natural resource wealth in ways which contribute to robust, inclusive economic growth.

In 2008, the total Official Development Assistance (ODA) to Africa reached US\$ 44 billion. This was roughly allocated as 40% to social sectors (for example, education and health), 32% for economic development (for example, physical infrastructure and production) and 10% to meet humanitarian needs (for example, for food aid and response to emergencies).

### 1.3 Strategic approach of Australia 2011-2015

Historically, the Australian Government's assistance to Africa has been small compared to major donors, and geographically targeted at east and southern Africa. Australia's aid to Africa is expected to increase in the period of the new strategy (2011–15). The Australian Government is committed to increasing its total ODA to 0.5% of gross national income (GNI) by 2015–16 and to increasing the GNI share going to least developed countries to 0.15%. Based on consultations with African governments and institutions about their potential and development challenges, and an assessment of where Australia can best contribute, the overall outcome of 'Looking West: Australia's strategic approach to aid to Africa 2011–2015' is to: 'contribute to improvement against Africa regional targets for eradicating extreme poverty and hunger (MDG 1), reducing child mortality (MDG 4), improving maternal health (MDG 5) and increasing sustainable access to safe drinking water and basic sanitation (MDG 7)'.

AusAID's Africa Strategy identifies MCH as one of its three priority sectors (the others being water and sanitation and agriculture and food security). The strategy is further elaborated in AusAID's recent overview "Investing in Health", aiming to scale up its official development assistance (ODA) for health. This document provides a strong rationale for increasing substantially its contribution to the health sector. Australia will therefore expand significantly into Africa, focusing on Maternal and Child Health (MCH) and strengthening underlying health systems and services. Results and performance indicators will correspond broadly to the health Millennium Development Goals (MDGs) with a strong focus on MCH, drawing from national M&E frameworks. The document states AusAID's intention to work in partnerships with governments, donors and other stakeholders in a more aligned and coordinated way under partner government leadership.

As part of this expansion into Africa, AusAID is currently developing a five-year (2009-14) \$ 140 million Australia-Africa Maternal and Child Health Initiative (AAMCHI or 'the Initiative') in Eastern Africa. Assistance is expected to be delivered through (i) partnerships with governments (including contributions to pooled sector funds), (ii) collaboration with likeminded partners (UK, US and Gates Foundation) under a recently-formed Alliance for Reproductive, Maternal and Newborn Health, and (iii) grant funding to effective NGOs and multilateral agencies.

Given that the Initiative will include a mix of funding to national programs and other mechanisms, inputs will vary significantly according to context. Where working with national systems, the Initiative will align with existing plans and priorities. The strategic priorities articulated below are central to the Initiative. However, they are not its exclusive focus:

1. **Health workforce development, with a focus on midwifery:** improvements in the quality and reach of midwifery services will save the lives of significantly more women and babies in need during pregnancy and delivery;
2. **Improving basic obstetric and newborn care:** provision of basic obstetric care is among the most cost-effective means of reducing maternal mortality. The most dangerous time in a child's life is during birth and shortly thereafter: 40 per cent of under-five deaths occur in the neonatal period;
3. **Expanding access to sexual and reproductive health services:** improved access to contraception is a cost-effective means of reducing maternal and child mortality. Preventing unintended pregnancies through access to family planning would avert up to 35 per cent of all maternal deaths, saving up to 175,000 lives per year.

## 2.0 ANALYSIS AND STRATEGIC CONTEXT

### 2.1 Country and Sector issues

#### *Tanzania<sup>1</sup>*

The United Republic of Tanzania is the largest country in East Africa and has international borders with 8 neighboring countries (Annex 13). Mainland Tanzania is divided into 26 administrative regions, 113 districts, and about 10,342 villages. The estimated population by July 2008 was almost 38,000,000 people and a literacy rate of 72.5% among Tanzanians over 15 years of age. Life expectancy was expected to reach 53 years for men and 56 years for women by 2008. Tanzania is classified as one of the least developed countries.

The strong growth rates over the last decade have not led to significant declines in poverty rates. Income poverty rates changed little between 2000/01 and 2007. Almost 98% of households spend less than Tshs 58,000 per month<sup>2</sup> per adult equivalent on food and basic necessities (2007 prices), and approximately 80% spend less than Tshs 38,600 per month or Tshs 1,380 per day. Overall, the estimated number of Tanzanians living in poverty increased to 12.9 million in 2007. Tanzania faces a huge challenge to achieve MDG1 by 2015.

The rate of infant and under-five mortality has continued to decline, and Tanzania is on track to meet the MDG for under-five mortality in 2015 (MDG 4). The extraordinary improvement in child survival since 1999 is most likely explained by gains in malaria control. However, neonatal mortality has declined to a much smaller extent and now accounts for a growing share of under-five deaths. Maternal mortality has also remained exceedingly high over the past decade with no improvement. The 2004/05 Maternal Mortality Rate (MMR) was 578 per 100,000 live births which is equivalent to more than one maternal death in Tanzania every hour. The HIV prevalence rates have declined for both men and women, and across all age groups. The total number of Tanzanians aged 15-49 years living with HIV is estimated to be slightly over one million. Women predominate in the younger age groups and comprise an estimated 61% of all adults living with HIV. The distance to the nearest health facility has marginally decreased. However, findings show a remarkable shift in utilisation away from private providers and towards government facilities, which will place increasing pressure on the public health system.



OPD in Amana Hospital

#### *Health Sector Policy Framework<sup>3</sup> and national objectives*

- The Ministry of Health and Social Welfare (MOH&SW) is currently implementing the revised Health Policy 2007. The mission is to provide basic health services in accordance with geographical conditions, which are of acceptable standards, affordable and sustainable.
- In 2007 the MOH&SW also developed the Primary Health Care Service Development Program (PHCSDP). This program is better known by the name of Mpango WA Maendeleo ya Afya ya Msingi

<sup>1</sup> Ministry of Finance and Economic Affairs: Poverty and Human Development Report 2009

<sup>2</sup> The exchange rates is 1 US\$ to Tshs 1,480.

<sup>3</sup> See also Annex 5 for a more extensive context overview. This will serve as an introduction and reference document for the GHAWA teams during the two-year project phase.

2007-2017 (MMAM). The objective of the MMAM program is to accelerate the provision of primary health care services for all by 2012. The main areas of the MMAM program will be strengthening the health systems, rehabilitation, human resource development, the referral system, increase health sector financing and improve the provision of medicines, equipment and supplies. A key component of the program will be the rehabilitation of existing health facilities and construction of new ones (aim is to have a dispensary in each village and a health centre in each ward). A critical element will be to increase the workforce in for enrolled nurses, production of health tutors and the skills of existing staff.

- The third Health Sector Strategic Plan 2009 – 2015 (HSSP III) was launched in June 2009. The theme for the HSSP III is “Partnerships for delivering the Millennium Development Goals”. The year 2015 is the target year for achievement of the Millennium Development Goals (MDGs). This is also the end year for the HSSP III. The HSSP III will be implemented with two other major programs; the MMAM (2007-2017) program and the Human Resources for Health Strategic Plan (2008-2013). The HSSP III covers 11 strategies that will need to be achieved during the period of implementation.

### *Human Resource for Health Strategic Plan 2008-2013*

- The Human Resource for Health Strategic Plan (HRHSP) 2008-2013 is the framework to guide the MOH&SW in planning, development, management and utilisation of the human resources in the health sector. The aim is to achieve; (1) an adequate number of qualified health workers for the country; (2) effective management of the human resources and; (3) equal distribution of the human resources.
- The HRHSP has selected a number of *quick wins* with the aim to achieve rapid and significant results. It is hoped that the quick results will contribute to a swift implementation of the strategic plan. For SolidarMed and the proposed project Strategic Objective 5 will be the most important objective as this one deals with the partnership arrangements. The quick wins are linked to different Strategic Objectives and are divided as follows:

Table 1: HRHSP 2008-2013: Strategic objectives and quick wins	
Strategic Objectives	Quick Wins
SO 1: Human Resource Planning and Policy development.	<ul style="list-style-type: none"> <li>▪ Training key HRH staff at central level on HRH planning</li> <li>▪ Undertake initial planning work for the design of a comprehensive Human Resource Information System (HRIS).</li> <li>▪ Identify issues/develop a working paper for discussion by the inter-ministerial committee/taskforce.</li> <li>▪ Launch and disseminate the HRH strategic plan at all levels.</li> </ul>
SO 2: Strengthening Leadership and Stewardship.	<ul style="list-style-type: none"> <li>▪ Run a Leadership Development Program (LDP) for Director of Administration and Personnel (DAP) and Director of Human Resource Development (DHRD) managers.</li> </ul>
SO 3: Education, Training and Development.	<ul style="list-style-type: none"> <li>▪ Train HRH Focal persons at district level on HR management.</li> <li>▪ Review and make recommendations on the decentralization of the pre-service and in-service training.</li> </ul>
SO 4: Workforce Management and Utilisation.	<ul style="list-style-type: none"> <li>▪ Streamline recruitment bottlenecks</li> <li>▪ Track and monitor new recruited employees</li> <li>▪ Reallocate health workers to ensure equity in distribution.</li> <li>▪ Develop and advocate an improved incentive package for health workers in hardship areas.</li> </ul>
SO5: Partnership in Human Resource.	<ul style="list-style-type: none"> <li>▪ Assess capacity of private institutions in training and services delivery.</li> <li>▪ Support the private sector to scale up the training of health workers in line with the PHSDP/MMAM and report on the above assessments.</li> </ul>
SO 6: Human Resource Research and Development.	<ul style="list-style-type: none"> <li>▪ Identify priority areas for HRH research</li> </ul>
SO 7: Human Resource Research and Development.	<ul style="list-style-type: none"> <li>▪ Disseminate the HRH strategic plan and detailed budget to relevant government ministries and development partners.</li> </ul>

**Source: HRHSP 2008-2013**

## **2.2 Problem Analysis**

### *Health workforce crisis<sup>4</sup>*

The global shortage of health care workers is threatening the success of key health and development goals in low-income countries throughout the world. The magnitude of the global crisis is well documented. In Tanzania, the health care workforce crisis has hampered the government's ability to meet its goals for improving the social and economic well being of its population. The government of Tanzania estimates that in 2006 there was a shortage of over 90,000 health care professionals in the public and private sectors combined. This accounted for almost three-quarters of the health care workforce (MOH&SW, 2008).

<sup>4</sup> Reference and extracts from I-TECH Study November 2010



Through the MMAM Policy, the government plans to build 3,088 dispensaries, 19 district hospitals, 95 maternity waiting homes, and 2,074 health centers to address the unmet need for primary health care services. The number of new professional health care workers required to staff these additional facilities is estimated to be almost 90,000, bringing the total new health care workers needed for the public sector alone to 144,704 by 2017 (MOH&SW, 2008). This approach requires huge efforts to scale up training, recruitment, and retention of health care workers in order for the MOH&SW to meet the MMAM's objectives.

### *Scaling up Enrolment at Health Training Institutes*

Tanzania has 116 Health Training Institutions (HTI) that train future health care professionals in both degree and non-degree programs (Annex 6). However, Tanzania's current training capacity cannot keep up with population growth and attrition in the health care sector. Without significant interventions to increase the number of health care workers trained, Tanzania will experience a decline in Human Resources for Health (HRH). The MOH&SW's objectives under MMAM call for an increase in HTI enrolment over a 10-year period, going from 1,013 students to 10,499 (MOH&SW, 2007). A rapid assessment of enrolment trends showed that in September 2008, the new enrolment rate was only 3,831 students, instead of the targeted 6,450 students (MOH&SW, 2009). If the enrolment trend continues at only 60% of the MMAM targets (as it did in 2008–2009), the gap between actual HTI enrolment and projected enrolment needs will continue to increase. To meet MMAM's targets, Tanzania must continue to swiftly increase enrolments as well as facility capacity at the HTIs. Therefore, a significant investment of resources and a clear strategy for addressing priorities are required.

However, over the past years the resources have not been available to fully implement the MOH&SW's plans for increasing enrolment in HTIs. Most pre-service institutions have just not been able to double the size of the student body with their current infrastructure. They have been strained by insufficient clinical faculty, administrative staff, classrooms, dormitories, library and resource materials, or computers.



**HKMU class room for Faculty of Nursing**

### *Shortages of Clinical Faculty*

The shortage of full-time clinical faculty—referred to as “tutors” in Tanzania—is consistently identified as a critical barrier to scaling up enrolment at HTIs. Existing institutions are requested to double their intake to meet MMAM's objectives. However, the number of tutors has not seen a corresponding increase. Rather, the production of new, permanent tutors is declining and the current pool of practicing tutors continues to decrease in size (MOH&SW, 2008).

There are significant staffing gaps with very few new full-time tutors posted to HTIs in the last two years. The staff deficit shows an estimated gap of 45% in the overall teaching faculty at HTIs (MOH&SW, 2009). One of the factors contributing to the low number of new faculty posted to HTIs is the lack of clinical health care professionals choosing to enter the teaching profession. Enrolment at the three faculty training centers that provide training in teaching methodology decreased to 52% capacity in 2009, with a total of only 47 new clinical faculty currently enrolled in faculty-training programs.

The shortage of clinical faculty further compounds low morale among existing faculty by increasing the workload of individuals, who are concurrently discouraged by existing salary levels and limited opportunities for promotion and further training (I-TECH, 2009). Assessments show that - on average - tutors have attended only two courses, trainings, or workshops during their entire teaching career (career of six to eleven years).

### *The Nursing Cadre*

The training for nurses of all levels severely lags behind the needs in Tanzania. Previously the training for Enrolled Nurses (EN) involved an in-service program that took four years (including midwifery skills). However, in order to meet the MMAM targets, the program has been revised to take pre-service students and to train them over a two-year period. ENs can later upgrade to a diploma level registered nurse. While the training of a nurse focuses more on patient care, due to the human resource crisis in the health sector, nurses find themselves doing multiple tasks, including those for which they were not trained (Meena, 2009).

There is a critical shortage of Clinical Officers, nursing officers (Registered Nurses), ENs, and laboratory assistants in Tanzania. These four cadres make up almost 85% of the current adjusted deficit of health care workers in Tanzania. With the 2008 enrolment numbers, Tanzania can expect to have vacancy rates of 74–90% by 2018 in these cadres if the situation is not reversed. Any efforts to address the health care workforce crisis in Tanzania should consider these crucial cadres for maximum impact.

### *Barriers to upscaling the enrolment and quality of training*

The MOH&SW aims to increase the enrolment by 100% at Nurse training institutions. However, a 100% scale-up from the existing enrolment numbers is logistically unrealistic. To be able to accommodate so many students, campuses would need a drastic and extensive overhaul as well as an immense increase in resources, especially human resources. Six main barriers have been identified to increase the enrollment at any specific institution: 1) number of tutors and staff; 2) level of supervision in the clinical setting; 3) classroom capacity; 4) dormitory capacity; 5) other infrastructure issues, which often include sanitation systems, power and water supplies, and dining halls/kitchens; and 6) lack of a process to verify enrollment qualifications.

Furthermore it is evident that:

- Infrastructure investment and additional staffing are required adequately support existing enrolment numbers as well as for continued scale-up.
- The shortage of full-time faculty is a critical barrier to scale-up for most institutions.
- Tutors face huge difficulties in covering the entirety of the shortened curriculum. Additional full-time tutors are necessary due to the shorter curriculum, which focuses heavily on clinical practice. Tutors currently work overtime in the evenings and on weekends to cover the curriculum and students continue to experience a lack of clinical supervision in the hospital setting. Clinical instructors are also in short supply.
- Classrooms built for 50 or fewer are often used for cohorts of 70 or more students. Overcrowding limits the quality of instruction provided. Skills labs are generally unused, because they have been converted to classrooms or lack models and teaching resources.



**HKMU Skills lab**



## 2.3 Activities undertaken by the government and other donors

### *Concerted effort*

The immense need for health care workers in Tanzania has led to an incredible effort by the MOH&SW and other government authorities to prioritize scaling up student enrolment at HTIs. Though the MOH&SW increased the training capacity of existing pre-service institutions, most pre-service institutions have not been able to double the size of the student body with their current infrastructure. Institutions report that they are strained by trying to train large groups of students without sufficient clinical faculty, administrative staff, classrooms, dormitories, library and resource materials, or computers. The institutions have reached a critical point where significant investments in infrastructure and human capacity are needed to ensure quality education and produce high quality health care workers who can meet the needs of Tanzania's rural communities.

To address the lack of resources for meeting scale-up targets, the government of Tanzania successfully solicited significant resources from the Global Fund for AIDS, Tuberculosis and Malaria (GFATM) Round 9. A portion of these funds will be used to support health system strengthening activities and goals. One of the key objectives of this funding is to increase production of mid-level and highly-skilled health care workers in Tanzania's existing public, private, and faith-based training facilities (I-TECH 2010). As a result of all the preparatory activities of the MOH&SW, bilateral and multilateral donor, momentum is building up in Tanzania to address the key bottlenecks in the human resource situation

The overall aim of the MOH&SW of the concerted HRH effort is to increase the collective potential of all the public and private HTI during the next 5 years. The MOH&SW has estimated that a total intake target of approximately 11,300 students per year is achievable (Report Delivering on Campus Expansion, 2011). This exceeds the original annual target of 6,885 students set in the original Global Fund proposal. An increased intake to 11,300 per year would more than double the intake of health workers (all cadres) in Tanzania and increase the health worker coverage from 0.8 to 1.6 per 1,000 population in 2020. Still there will be a shortage of 38,000 health workers (estimates against the WHO targets) but this will already be much better than the earlier projections of 57,000 health workers. There is an absolute commitment of the government and the development partners to achieve the annual student intake target of 11,300 people.

The MOH&SW has developed (with support of McKinsey Company) a 5-year improvement program for 40 campuses (120+ schools). The MOH&SW has just completed the assessment of 23 schools on 9 campuses (Wave 1). This should result into improvement of the campuses and a new intake of students by September 2011. The second assessment of 20-30 campuses (30-70 schools) will be done in the period April-September 2011 (leading to increased intake in 2012) and the remaining campuses will be assessed in 2013. The assessments and costing studies (based on standard designs) have identified four areas that will determine optimum capacity requirements to achieve maximum intake potential:

1. Tutors: Increase number and type of tutors (fulltime and part time) to be increased per program, increase staff productivity, increase part-time teaching by clinical cadres and improve quality of tutors and clinical mentorship.
2. Classrooms: Expand the number of classrooms and capacity; improve clinical and practical teaching (skills labs).
3. Dormitories: Increase capacity for the whole campus.
4. Health facilities: Increase use of part-time staff (payment of part-time rates) and increase resources for training, transport and training requirements of cadre being trained

Part of the improvement program will address the organisational challenges:

- Alignment of all public and private actors around the vision and direction of the improvement program.
- Increase accountability and ownership for delivery.
- Simplify administrative processes to address critical bottlenecks (procurement, payment processes).
- Build performance systems and structures (monitoring and reporting).
- Develop management skills and capabilities across management cadres.
- Renew focus on employee recognition and individual development to motivate staff and improve performance.

### *Available resources*

It is expected that achieving the annual intake of 11,300 students will require significantly more resources than currently budgeted for in the Global Fund Round 9 (GFR9) budget. It is estimated that for the period

2013-2015 an additional \$ 82 million capital will be required and \$ 15 million additional operating budget per year. Table 2 provides an overview of the donor contributions.

Table 2: Relevant HRH support projects in Tanzania from 2011 onwards		
Project	Focus and interventions	Estimated budget (USD)
MOH&SW, CSSC and Private HTI	<ul style="list-style-type: none"> <li>Provision of education in 116 public and private HTI in Tanzania</li> </ul>	Salaries, Training
Global Fund AIDS Tuberculosis and Malaria (GFATM) Round 9  Will commence in 2011	<ul style="list-style-type: none"> <li>GFATM Round 9 for Tanzania has been approved. Primary Recipient is MOH&amp;SW. Sub Recipients are CSSC, Mama Mkapa Foundation, NIMRI and IHI (Both research institutes), University departments.</li> <li>Support for HTI, tutors, teaching materials, capacity building for principals, and expansion of regional hospitals with training facilities.</li> <li>The majority of the public and private health training schools will receive support for renovation.</li> <li>Subsidies for off-campus housing in health training schools and scholarships for students.</li> <li>District revolving fund (LGA) for salary advances to health workers.</li> <li>In 70 districts support to retention schemes for health workers.</li> </ul>	<p>\$ 82,000 for the first two years for Health Systems Strengthening (HSS).</p> <p>A second allocation to be done for period 2013-2015</p>
United States Aid International Development (USAID)  Is ongoing	<ul style="list-style-type: none"> <li>HRH Capacity Project in Tanzania.</li> <li>Technical support provision via: Centre for Disease Control (CDC), International Training Education Centre on HIV/AIDS (ITECH), Management Science for Health (MSH), IntraHealth International and Interchurch Medical Assistance (IMA). Focus is on skills laboratories, tutor training, and curriculum development.</li> <li>CDC will provide support to the public sector.</li> <li>ITECH will focus on the training of tutors (Clinical Officers).</li> <li>MSH and IntraHealth will provide capacity building to selected partner organisations (including CSSC).</li> <li>IMA Worldhealth will support CSSC with HRH mapping and Information Systems in Tanzania.</li> </ul>	<p>(budget not known) (for 4 years).</p> <p>USAID Funding and also PEPFAR funding</p> <p>Estimated at \$ 40,000,000</p>
Touch Foundation	<ul style="list-style-type: none"> <li>Lake Zone HRH Program in collaboration with Buganda College of Health Science (BUCHS) and Bugando Medical Centre (BMC). Support to the Faculty of Medicine, Education, Clinical Mentorship and HTI in the Lake Zone.</li> </ul>	\$ 8,500,000 (USAID Grant)
Dutch Government support through Netherlands Organisations for International Cooperation in Higher Education (Nuffic).  Is ongoing	<ul style="list-style-type: none"> <li>Nuffic supports three ZHTIs in Mwanza, Kigoma and Morogoro Regions to increase their capacity (management systems, tutors, teaching methodology, development of skills laboratories, quality assurance) and assist with curriculum revision (nurses).</li> <li>Nuffic supports Christian Social Services Commission (CSSC) with support to 40 private HTI (management, tutor training, curriculum revision, clinical mentorship, skills laboratories, labour market survey, some infrastructure support, model of excellence approach).</li> <li>Nuffic supports Ifakara Health Institute with HRH Research capacity development, tutor training and 4 PhDs.</li> </ul>	\$ 7,800,000 (for 5 years) for three HRH projects (period 2009-2014).
Tanzanian German Programme to Support Health (TGPSH)	<ul style="list-style-type: none"> <li>District Health Management Courses.</li> <li>Service Agreements (in CSSC).</li> <li>Master of Public Health in Muhimbili Campus.</li> <li>HRH support in Southern Zone.</li> </ul>	Budget not known
Canadian Government and MOH&SW  (Expected to be tendered in 2011).	<ul style="list-style-type: none"> <li>Support to MOH&amp;SW HRH Steering Committee.</li> <li>Support to HRH monitoring and tracking system.</li> <li>Support to private sector. Support to 30 proposals of \$ 500,000 for HRH scaling up interventions.</li> <li>Support to 6 proposals of \$ 200,000 for HRH initiatives.</li> <li>Support to HRH operational research and twinning arrangements.</li> </ul>	\$ 30,000,000 (for 5 years)

## 2.4 Linkage with AusAID Strategy and other in-country initiatives

### Relevancy

It is evident that the GHAWA program will be fully in line with the AusAID strategy as outlined in the document: Looking West: Australia's strategic approach to aid in Africa 2011-2015. The GHAWA program will contribute towards MDG 4 (reducing child mortality) and MDG 5 (improving maternal health) and will also be in line with objective one and two in the overall strategy (resp. assistance with progressing the MDGs and building human resource capacity).

In the context of the Maternal and Child Health (MCH) Initiative, the GHAWA program will focus on (1) health workforce development (with a focus on midwife and nurse training), (2) improving basic obstetric and newborn care (focus on midwife training) and (3) expanding access to reproductive health services (clinical mentorship training in health facilities and transport).

The GHAWA program will be fully consistent with the key objectives in the HSSP III 2009-2015 and the MMAM Program 2007-2017 which will focus on the acceleration and quality of PHC services. A critical element is to increase the workforce for enrolled nurses, production of health tutors and the skills of existing staff. Furthermore, the GHAWA program will be fully in line with Human Resource for Health Strategic Plan (HRHSP) 2008-2013. The aim is to achieve; (1) an adequate number of qualified health workers for the country; (2) effective management of the human resources and; (3) equal distribution of the human resources. The GHAWA program will especially contribute to Strategic Objective 5 (Partnership in Human Resource) and the “quick win” approach (see Table 1).

The GHAWA program in Tanzania is proposed in order to contribute towards two key problems in the sector:

1. High level of Maternal Mortality. There is a clear need to contribute toward reduction of the MMR and to improve the proportion of birth by skilled health workers (47% in the rural areas).
2. Health workforce crisis. There is a clear need to improve the Faculties of Nursing and Midwifery and to strengthen the capacity and quality of the tutors so that they are well versed with the requirements of the new curricula, innovative training techniques and clinical mentorship approaches.

Stakeholders in Tanzania have indicated that they appreciate the GHAWA program as a very welcome contribution to the ongoing interventions. GHAWA will be included in the mailing lists of the MOH&SW Technical Working Group for HRH and will be invited for relevant meetings. CDC, I-TECH, JHPIEGO, AIHA and Nuffic actors will work together with GHAWA (and their partners) to harmonize and streamline the support. Especially in the area of skills lab development (Annex 7 and 8) there will be opportunities to complement the different support options (GFR9, Jhpiego, AIHA and Nuffic) so that optimal use of the available funding will be achieved. The Advanced School of Midwifery, MOH&SW, Jhpiego and GHAWA will work together to coordinate the support to the school building and tutor training (Bachelor Degree level). HRH Actors were very keen to work together with experts from Australian Universities on specific courses. There will be options to (1) exchange and harmonize training approaches (for new curricula, practical skills, and clinical mentorship) and (2) link the Australian expertise also to other training programs in Tanzania.

## 3.0 PROGRAM DESCRIPTION

### 3.1 GHAWA profile and universities

#### *Western Australia (WA) Health Organisation Profile*

GHAWA will implement and coordinate the GHAWA proposed program in Tanzania. GHAWA is an initiative of the West Australia (WA) Department of Health and five universities and is embedded in the WA Health System<sup>5</sup>. WA Health is Western Australia's public health system consisting of 89 public hospitals with a total of approximately 5,350 hospital beds and 30,100 full time equivalent staff members.



Hospitals and Health Services within WA Health comprise the following institutions:

- *5 Major Tertiary Hospitals and Health Services in the Metropolitan Area*
  - Royal Perth Hospital
  - Sir Charles Gairdner Hospital
  - Fremantle Hospital and Health Service
  - Princess Margaret Hospital for Children
  - Kind Edward Memorial Hospital
- *12 Secondary Hospitals in the Metropolitan Area, and*
- *72 Country Hospitals and Health Service (this comes under the WA Country Health Service Area)*

WA Health offers a large range of clinical specialties and areas of practice. The clinical specialties and areas of practice offered by each hospital and health service in the Western Australian public health sector differ. The following is a general view of clinical specialties and areas of practice offered within WA Health and do not include sub-specialties.

<ul style="list-style-type: none"><li>• <u>Accident and emergency</u></li><li>• <u>Aged care</u></li><li>• <u>Aged / rehabilitation</u></li><li>• <u>Burns</u></li><li>• <u>Child and adolescent mental health</u></li><li>• <u>Community health</u></li><li>• <u>Community mental health</u></li><li>• <u>Coronary care / cardiac</u></li><li>• <u>Forensic mental health</u></li><li>• <u>General medical</u></li><li>• <u>General surgical</u></li><li>• <u>High dependency unit (HDU)</u></li><li>• <u>Hyperbaric</u></li></ul>	<ul style="list-style-type: none"><li>• <u>Indigenous health</u></li><li>• <u>Intensive care</u></li><li>• <u>Mental health</u></li><li>• <u>Midwifery</u></li><li>• <u>Neurology</u></li><li>• <u>Older adult mental health</u></li><li>• <u>Oncology</u></li><li>• <u>Orthopaedics</u></li><li>• <u>Paediatrics</u></li><li>• <u>Remote area</u></li><li>• <u>Renal</u></li><li>• <u>Theatre</u></li><li>• <u>Women's health</u></li></ul>
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<sup>5</sup> For further information, the annual report for the WA Department of Health may be referred to in the attached appendices titled "Department of Health Annual Report 2009-10". It includes the State Government's Service Framework and Management Structure. WA Health web link <http://www.health.wa.gov.au/home/>



**WA Country Health Service (WACHS) is part of the WA Health and will provide strategic support for GHAWA**

- It covers 7 regions comprising of a total of 144 health services (including hospitals) in the WA country, remote and rural areas.
- These are made up of 6 regional hospitals, 15 district hospitals, 50 small hospitals, 47 nursing posts, 26 mental health services and community health services in over 53 locations
- Consists of 8,500 staff including 2,300 FTE of nurses
- WACHS web link: <http://www.wacountry.health.wa.gov.au/>

**Women and Newborn Health Service is part of the WA Health and will provide strategic support for GHAWA**

- The Women and Newborn Health Service encompasses King Edward Memorial Hospital (KEMH), the Cervical Cancer Prevention Program, Sexual Assault Resource Centre, BreastScreen WA, Statewide Obstetric Support Unit, Women's Health Policy Unit, WA Perinatal Mental Health Unit and the newly created Aboriginal Maternity Services Support Unit.
- KEMH is WA's only tertiary maternity, neonatal and gynaecological hospital which includes a Neonatal Intensive Care Unit, currently undergoing expansion. In 2009 5,900 babies were born at KEMH and over 65,000 appointments were made at outpatient clinics. KEMH provides education for student and graduate midwives and nurses, return to practice midwives and enrolled nurses.
- KEMH web link: <http://www.kemh.health.wa.gov.au/>

**Edith Cowan University (ECU) is an external organisation from WA Health and it will provide strategic support for GHAWA**

- ECU has two metropolitan campuses: Mount Lawley and Joondalup. ECU also serves Western Australia's South West region from a campus in Bunbury, 200km south of Perth.
- ECU is the largest undergraduate nursing program in Western Australia, comprising of more than 20,000 students with approximately 4,000 International nursing students from over 90 countries.
- ECU offers Undergraduate and Postgraduate Nursing, Paramedic and Post Graduate Medicine programs
- More than 400 courses are offered through four faculties:
  - Business and Law
  - Computing, Health and Science
  - Education and Arts, which includes the Western Australian Academy of Performing Arts (WAAPA)
  - Regional Professional Studies
- ECU web link: <http://www.ecu.edu.au/>

**The University of Notre Dame Australia is an external organisation from WA Health and it will provide strategic support for GHAWA**

- The University of Notre Dame Australia (UNDA) was founded through an Act of the Parliament of Western Australia in December 1989, it now has over 9000 students enrolled on its three campuses in Fremantle, Sydney and Broome.
- Notre Dame is an Australian university which has embraced both the modern Australian university tradition and the ancient and esteemed traditions of Catholic universities both in Europe and North America.
- It is a university which specialises in excellence of undergraduate education. Its focus is the education and training of young people for entry to the major professions: medicine, law, teaching, nursing, accounting and finance, physiotherapy, counselling, health sciences and the priesthood.
- UNDA School of Nursing at Fremantle and Broome offers a three-year course in clinical practice in areas ranging from aged care to critical care. This comprehensive program aim to expose students to a wide variety of clinical experiences. An important aspect of this clinical education, which is novel to Western Australia and to most other parts of the country, is the use of mentors who provide one-on-one clinical supervision for our students.
- The School also offers postgraduate studies with courses ranging from Graduate Certificates to a Doctor of Nursing program. The postgraduate courses provide further and continuing education to nurses with or without previous degrees.
- UNDA web link: <http://www.nd.edu.au/>



***Murdoch University is an external organisation from WA Health and it will provide strategic support for GHAWA***

- The School of Nursing and Midwifery at Murdoch University is a new and vibrant part of the Murdoch University community and is located on the Peel Campus in Mandurah. Murdoch University aims to produce high-quality nursing and midwifery graduates who possess professional, up-to-date clinical practice competencies to meet the health needs and priorities of the community in multidisciplinary settings.
- The school offers a range of undergraduate and postgraduate courses that may be completed on a full or part time basis. The school also welcomes applications from students wishing to complete research degrees from honours to PhD. The learning and teaching resources on campus are exceptional. Members of staff bring a wealth of clinical, academic and research experience to the school and together with the administrative staff are committed to delivering an excellent learning experience to students.
- Murdoch University web link: <http://www.murdoch.edu.au/>

***Curtin University is an external organisation from WA Health and it will provide strategic support for GHAWA***

- Curtin University is a multi-campus university founded as the Western Australian Institute of Technology (WAIT) in 1967. Curtin gained university status in 1987. Curtin's teaching and research is grouped into five faculties: Centre for Aboriginal Studies, Curtin Business School, Faculty of Health Sciences, Faculty of Humanities and Faculty of Science and Engineering. These faculties are further divided into schools, departments and centres, which are the basic operational units of the University. Teaching and research activities are supported by the Vice-Chancellor. Courses are delivered at several campuses and education centres throughout Western Australia, campuses in Sydney and Malaysia, as well as a host of international partner institutions.
- The Curtin University of Technology Act 1966, which established the University, provides that the governing authority of the University is the Council. The Chancellor chairs Council while the Vice-Chancellor is responsible for the day-to-day management of the University.
- The School of Nursing and Midwifery is committed to the education of graduates who will be leaders in the nursing and midwifery profession. Courses of study are focused on the development of highly skilled professionals who are empathetic, caring and respectful of diverse value and beliefs. The School of Nursing and Midwifery provides the opportunity for students to develop these qualities through undergraduate and postgraduate studies. Curtin University has over 3000 nursing undergraduate and postgraduate nursing students. The School has a wide range of courses and research opportunities open to both local and international students. Student centered learning is the focal point of the School's mission and values and as such students are supported to achieve their goals.
- Curtin University web link: <http://www.curtin.edu.au/>

***University of Western Australia is an external organisation from WA Health and it will provide strategic support for GHAWA***

- The University of Western Australia (UWA) is a leading Australian research university and has an international reputation for excellence, innovation and enterprise.
- It is a member of significant international networks of excellent research intensive universities, including the Worldwide Universities Network and the Matariki Network of Universities as well as a member of the Australian 'Group of Eight' research universities.
- UWA is located on the banks of the Swan River, the UWA Crawley campus is the oldest in Western Australia. In 2009 responding to the desperate shortage of nurses nationally and worldwide, the University of Western Australia launched its Master of Nursing Science. UWA currently only offer post graduate nursing education. The Master of Nursing Science (entry to practice) degree enables graduates to meet the competencies required by the Nurses and Midwifery Board of Australia to register and practice as a registered nurse. The course builds on the individual's previous academic learning and life experiences of the graduate to prepare them for the dynamic challenges of nursing as a profession.
- UWA web link: <http://www.uwa.edu.au/>

### **3.2 GHAWA Partners in Tanzania**

#### *Partnership*

GHAWA will establish a partnership with two Health Training Institutes (HTI) in Tanzania. Both HTI are located in Dar es Salaam. The Advanced Practice Midwifery School is a public HTI and is owned by the

MOH&SW. The school is located on the Muhimbili Campus. The Hubert Kariuki Memorial University (HKMU) is a private university and is located on a private campus in Dar es Salaam.

### *Advanced Practice Midwifery School (APMS)*

#### *Advance Midwifery School as an institution*

The Advanced Practice School (APMS) is a government owned institution located within the Muhimbili National Hospital premises. It is the only school for Advance Midwife training in Tanzania. The school is incorporated at the Institute of Allied Health Sciences (IAHS) of the Muhimbili University of Health and Allied Sciences (MUHAS). The school was established in 2001 by enrolling students who qualified for the diploma in Nursing and Midwifery.

The school is managed by the Principal (Ms. Rose Laisser). She is assisted by the deputy head of management and deputy head for academics. Furthermore there is an Academic Committee. The APMS has a group of six fulltime tutors of which only one tutor has a Master degree (Principal). This tutor is currently enrolled in a PHD program. The other tutors have a BSc degree. The tutors do sometimes follow short courses which are provided by the MOH&SW. In addition, the APMS works with part-time tutors from Muhimbili hospital and other schools on the campus. The APMS has currently 6 vacancies for tutors.

The school is funded by the MOH&SW (running costs, tutor salaries and student tuition fees). Students only pay a limited contribution for the on-campus hostel accommodation. There is no other source of funding for the school. This is quite surprising given the fact that Midwives are an urgently needed cadre in Tanzania.

The MOH&SW supports the APMS with the recruitment of students (who are trained nurses) and the allocation of staff. The APMS is well linked to the Zonal Health Resource Centre (ZHRC) in Morogoro. The ZHRC supports the APMS with the preparation of examinations and learning and teaching materials. The school is sharing resources with other schools within the IAHS (e.g. skills laboratories). Moreover the school has well established linkages with the Dar es Salaam based and outreach hospitals to enhance the clinical teaching to students.

#### *Course development*

The Advanced Practice Midwifery School offers a two academic year course in advanced midwifery enrolling about 40 Government and Private Students annually. The diploma is awarded by the Tanganyika Medical Board and recognized by The Nurses and Midwives council (TNMC). The school consists of limited ICT equipment and supplies. There is currently no computer lab for students and no specific midwifery skills laboratory.



**ASM Class with Midwives in training for statistics**

The advance diploma course has been developed into a BSc degree course. The curriculum is awaiting NACTE approval this year. If this new curriculum will be approved, the advance diploma course will cease to continue. It is expected that the first intake of the BSc students will be done in September 2011.

### *Improvement plan*

The Muhimbili campus has not yet been assessed by the MOH&SW. Since this campus is quite complicated due to the large number of schools and due to the different ownership arrangements, it is expected that the assessment will be done in phase three (2013). This implies that the improvement of facilities will still take another two-three years (at least).

Jhpiego might provide support with a skills laboratory for the Muhimbili School of Nursing (which could then be used by the APMS students) but other kind of support need to be explored further.

The APMS has been requested by the MOH&SW to double the annual intake of students in September 2011. However, this would require a second classroom, extra office space and renovations of the current classroom. Also a space for a specific midwife skills lab would be required. The APMS has a second classroom but this requires renovation. After renovation, the annual intake could be doubled from 40 to 80 students



**APMS Second classroom that needs renovation and outside status of the building**

From the GHAWA assessment it became evident that –despite the increased support that will be provided–, there will be needs in the following areas:

- Tutor training at a Masters level. The BSN for Midwives requires that the tutors hold a Masters level education in a relevant discipline. The APMS currently has a limited number of tutors with this degree level. However, due to the shortage of tutors in Tanzania, it is difficult to replace tutors going for further training. This would require a replacement strategy.
- Tutor training in the new curricula requirements, enhanced clinical skills, clinical mentorship (in-school and in the hospital setting) and skills lab development.
- Text books for the different training courses. The current library does not have a sufficient number of new books for the students.
- Equipment for a specific midwife skills laboratory. It is foreseen that the Global Fund support will only start in 2013 and Jhpiego support is not clear yet.

### *Hubert Kairuki Memorial University*

#### *HKMU as institution*

The Mission Mikocheni Health and Education Network (MMHEN) established Hubert Kairuki Memorial University (HKMU), initially as Mikocheni International University (MIU), in 1997. MIU's name was changed to Hubert Kairuki Memorial University (HKMU) in 1999 ([www.hkmu.ac.tz](http://www.hkmu.ac.tz)). The ownership of HKMU is vested in MMHEN, a private company, limited by guarantee, not having share capital and incorporated in Tanzania, established for the provision of health and education services. The University is registered as a Trust under The Trustees Incorporation Ordinance (CAP 375). It is headed by a Chancellor. The governing organs of the University include the Board of Trustees; the University Council and Faculty Boards which are chaired by Deans of Faculties. The University campus is located in Regent Estate in the Mikocheni area, some 7-km from the Dar es Salaam City centre.

Hubert Kairuki Memorial University is an accredited University, recognized in the United Republic of Tanzania, through the Tanzania Commission for Universities (TCU). It was the first private University in Tanzania to be accredited in June 2000. Internationally, HKMU is a member of the Inter University Council of East Africa (IUCEA), where it has good links with all universities which are members of the Council. HKMU also collaborates in matters of research and training with other external institutions of higher learning such as



the Yale University School of Medicine, University of Utah School of Medicine, Harvard School of Medicine, Connecticut University and Hiram University College (all in the United State of America). HKMU is a member of various associations, such as the Tanzania Association of Private Universities (TAPU); Forum of Universities and Colleges of Health Sciences in Tanzania (FUCHS-T); The Inter University Council of East Africa (IUCEA); and the International Association of Universities (IAU).

Nationally, HKMU is well connected. The Permanent Secretaries of the Government Ministries responsible for Education and Health are members of the University Council, while the same ministries are represented on the University Senate. The University also maintains links with other relevant bodies such as the Tanzania Commission for Universities (TCU), the Tanzania Commission for Science and Technology (COSTECH), the Tanzania Academy of Sciences, Tanzania Education Authority (TEA), and the National Council for Technical Education (NACTE) as well as with other universities in the country.

HKMU has a close working relationship with the Dar es Salaam municipalities and villages, where academic staff and students carry out their practical fieldwork. It also collaborates with other hospitals including the Muhimbili Orthopaedic Institute (MOI), Muhimbili National Hospital (MNH), Amana Hospital, the Ocean Road Cancer Institute (ORCI), Mwananyamala Hospital in Dar es Salaam, and Mirembe Hospital in Dodoma, together with its co-located health facility, the Mission Mikocheni Hospital (MMH).

### *Faculties*

- The Faculty of Medicine offers three academic programs, which are Doctor of Medicine (5 years), Pre-University entry program (6 months), and the Therapeutic Counseling course (3 months). Teaching at the faculty of Medicine is strongly community based, and it includes health promotion, disease prevention, research, and administration.
- The Faculty of Nursing offers two academic programs, which are Bachelor of Science in Nursing (In-Service program), a 3 years program, and the Bachelor of Science in Nursing (Pre-Service program) a 4 years program. The Mikocheni School of Nursing (MSN) is integrated in the Faculty and is affiliated to the faculty of Nursing of HKMU. The school is fully registered by the National Council of Technical Education (NACTE), and is currently at the level of accreditation candidacy. It offers two diploma programs which are: Pre-Service Diploma in Nursing/Midwifery or Psychiatry program, (4 years); and the In-Service Diploma in Nursing Program (2 years).
- HKMU has a wide range of facilities, including teaching and research laboratories, a library with a computerized catalogue, fulltime Internet access, E-mail, and CD-ROM facilities for users.
- The faculty of Nursing is headed by the Dean, currently Prof. Pauline Peter Mella. The faculty consists of 3 departments, which are headed by Chairpersons.

The Planning Department is mandated to supervise all developmental activities of the University, which include among others planning, implementing, and monitoring of the Five Year (2007/08- 2012/13).



**HKMU Graduation, including Bachelor of Science Degree in Nursing, and laboratory practice**

### *Improvement plan*

The HKMU has been assessed in 2011 by the MOH&SW to assess the requirements to upscale the intake of students. The two faculties together comprise of five schools and it is expected that an annual increase from 210 to 355 students per year can be achieved. The projection shows that the total university capacity could be increased from 593 students (2010/11) to 1,035 students in 2016/17. The faculty of Nursing and the Mikocheni School of Nursing currently (2010/11) has the following intake:

- BSN 1<sup>st</sup> year: 65 students.
- BSN 2<sup>nd</sup> year: 30 students.
- BSN 3<sup>rd</sup> year: 52 students.
- Nurse EN to RN Program 1 year training: 45 students.

- Nurse Enrolled Pre-service 20 students
- New EN certification program: no intake yet but from 2011/12 an increased intake expected from 20 to 120 students per year.

It is expected that HKMU will be able to increase the annual number of Nurse trainees from 162 students to 435 students by 2012/14. This is an increase of 273 students per year. HKMU currently has ten full time Nurse Tutors but only four tutors have a Master Degree. The other tutors have a BSN in Nursing (5) and an advanced diploma (1). There is an urgent need to increase the academic level of the tutors.

The proposed improvement strategy would require support for increased dormitory capacity by 288 beds, 6 new classrooms, a skills laboratory, increased ICT facilities, recruitment of 4 full time lecturers and 6 nurse tutors, 20 part-time tutors and transport for practical assignments in the government training hospitals (Amana and Mwananyamala). It has been estimated that the total investment will require Tshs. 2.2 billion.

It is expected that the Global Fund support through the MOH&SW will support part of the investment plan. However, this will mainly focus on the construction and renovation of the facilities. Other Global Fund Sub-Recipients will support the ICT component and may contribute to recruitment of extra tutors (Mama Mkapa Foundations). The latter still needs to be explored. The support for the skills laboratory will most likely need to be combined for the two faculties. AIHA may support part of the skills lab equipment but will not be able to support all the requirements (Annex 7 and 8).

From the GHAWA assessment it became evident that –despite the increased support that will be provided –; there will be gaps in the following areas:

- Tutor training at a Masters level. The BSN for Nursing requires that the tutors hold a Masters level education in a relevant discipline. The HKMU currently has a limited number of tutors with this degree level. However, due to the shortage of tutors in Tanzania, it is difficult to replace tutors going for further training. This would require a replacement strategy.
- Tutor training in the new curricula requirements, enhanced clinical skills, clinical mentorship (in-school and in the hospital setting) and skills lab development.
- Text books for the different training courses. The current library does not have a sufficient number of new books for the students.
- Equipment for the skills laboratories. It is foreseen that the Global Fund and AIHA support will not be sufficient to cover all the skills lab requirements.
- Transport may be required for the transfer of students to the practice sites.

### 3.3 Objectives and outcome

#### *Relevancy and gender equality*

In view of the problem analysis, the stakeholders analysis and the identified gaps, GHAWA has prepared a detailed Logical Framework for the two year program in Tanzania (2011-2013). The Logical Framework reflects the goal, objectives, outputs and indicators for the entire program (Annex 2). This paragraph will provide the summary overview of the goal objectives and expected outputs. The GHAWA program is relevant in view of the overarching sector issues and the serious MCH issues. The GHAWA program will contribute to gender quality by providing customised quality support for female and male tutors, female and male students, female and male patients and for children. The student intake data were not gender disaggregated but in the APMS and HKMU the majority of the target group will be female.

Expected key outcomes of the GHAWA program will be:

1. GHAWA contributed to the national target of 11,300 new student intake.
2. GHAWA contributed to improved quality of deliveries in improved maternal and child health.
3. Tutor capacity and quality in APMS and HKMU has been improved.
4. Improved application of theoretical skills in the real practice environment.
5. Improved quality of midwifery skills and nursing skills
6. Improved services for patients at hospital and PHC level.



Table 3 provides a summary overview of the Logical Framework.

Table 3 LFA : Goal	OVI Objectively Verifiable indicator
Improved Nursing and Midwifery capacity for tutors, nurses and midwives, in 2 public and private health training institutions and their associated practice sites, in Tanzania in 2-year period 2011-2013.	<ul style="list-style-type: none"> <li>Tutor capacity in HKMU and MOH&amp;SW Advanced Practice Midwifery School has increased.</li> <li>Intake of students in both institutes has increased.</li> <li>GHAWA has contributed to the overall national HRH and MMAM Strategic Plan and to the national annual target of 11,300 new student intake.</li> </ul>
Objectives	Expected Outputs
1. To assist nursing and midwifery tutors employed by the HKMU Faculty of Nursing and in the MOH&SW Advanced Practice Midwifery School in further developing their knowledge, and clinical skills in their areas of specialty.	1.1 Four 2-year Master degree courses in Nursing and Midwife related topics
	1.2 Provision of 12 academics and expert nurses / midwives for placements in HKMU Faculty of Nursing and in the MOH&SW Advanced Practice Midwifery School
	1.3 Equivalent of 4 FTE Tanzanian tutors replacing HKMU Faculty of Nursing and in the MOH&SW School of Advanced Practice Midwifery tutors who are in Master courses
	1.4 Provision of 18 three-day courses in specific topics for 360 tutors and experienced nurses and midwives
	1.5 Provision of learning resources, including scholarly journals and text books for HKMU Faculty of Nursing and in the MOH&SW School of Advanced Practice Midwifery
	1.6 Operational research to assess the impact of tutor training.
2. To strengthen the clinical mentorship capacity of nursing and midwifery staff at the HKMU Faculty of Nursing and MOH&SW School of Advanced Practice Midwifery in 5 practice sites relevant to their areas of specialty.	2.1 Forty experienced nurses and midwives trained in clinical mentorship in practice sites associated with HKMU Faculty of Nursing and the MOH&SW School of Advanced Practice Midwifery
3. To contribute to skills lab development of nursing and midwifery staff at the HKMU Faculty of Nursing and in the MOH&SW School of Advanced Midwifery.	3.1 Contribution to skills lab training for 20 tutors in HKMU Faculty of Nursing and in the MOH&SW School of Advanced Practice Midwifery
	3.2 Provision of equipment for skills labs in HKMU Faculty of Nursing and in the MOH&SW School of Advanced Practice Midwifery
4. To assist academic staff in developing strategies towards increasing student intake at the HKMU Faculty of Nursing and in the MOH&SW School of Advanced Practice Midwifery.	4.1 Renovation of 2 classrooms in the MOH&SW School of Advanced Practice Midwifery
5. To ensure adequate Program Management and Monitoring and Evaluation	5.1 Provision of management and monitoring support
6. To assist in improving access to Emergency Obstetric Care hospital facilities and to improved PHC services (in line with the MMAM Strategy).	6.1 Procurement of 2 vehicles for Masanganya and Masaki PHC clinics (Kisawere Districts).

### 3.4 Interventions of assistance

#### *An effective learning approach*

The GHAWA program will consist of different interventions to support the Advance Practice Midwifery School and the Hubert Kairuki Memorial University. The main target group for support will be the estimated 20 tutors and 200-240 students in both AMS and HKMU institutions. It is expected that additional institutions may want to let tutors participate in the trainings. There is room for this in the GHAWA approach.

The modalities will include:

- Four Master Courses** for two tutors in APMS and two tutors in HKMU. The Master courses can be selected in Africa or India as this will be more cost effective. A search has been done on potential options but still needs to include Master courses in South Africa (Annex 9).
- Technical support from 12 Australian academics and expert nurses/midwives** who will work with the tutors and senior health workers in APMS and HKMU on a **rotation of three months**. During these periods tailor made **technical support** will be aligned with the Tanzania requirements and tutors from APMS, HKMU and other organisations that may want to participate will be provided with:
  - Tutor training techniques relevant to the new curricula combined with on the job training.

- b. A 'Train the trainer' program that is designed to assist Tanzanian clinicians and HKMU to understand the best practice concept of delivering clinical educational needs including the appropriate assessment process, to enable continual education and professional development of local staff following the departure of the Australian team. The focus will be on needs analysis, principles of adult learning, understanding purpose of competences and the training process, methods of delivering training, evaluation of training, development of a training plan and presentation of training.
  - c. Deliver the Preceptorship master class designed to assist Tanzanian clinicians including HKMU and APMS faculty members to understand the evidence based best practice for preceptoring and mentoring peers and fellow nursing students. This subject offers in collaboration with clinical agencies to provide nurses and health professionals with the skills and knowledge to provide student and peer supervision in the workplace. The focus will be on concepts of preceptorship, principles of adult learning, assessment of learning needs and performance, interpersonal skills and communication, leadership elements, effective teaching and learning principles, strategies for effective preceptorship.
  - d. Deliver the Advance Life Support in Obstetrics (ALSO) course to APMS and HKMU members to understand the evidence based best practice for advance life support in obstetrics. On completion of the program, participants will gain competence, skills and evidence based knowledge practice to manage complications before, during and after delivery.
  - e. Clinical mentorship training in the APMS and HKMU practice sites for 40 Nurses and Midwives.
  - f. Skills lab training for tutors and senior health managers.
  - g. 18 three-day courses for 360 tutors to upgrade their skills in specific topics (also open for other institutions who may want to participate).
  - h. Capacity development in operational research by assessing the impact of the training approach in the GHAWA program.
3. **Replacement fund** to replace the four FTE tutors that will be in Master training. Both APMS and HKMU will then be able to recruit part-time or full time tutors to replace the Master students.
  4. **Provision of skills lab equipment** to APMS and HKMU which cannot be supported by other development partners.
  5. **Renovation of two classrooms** in APMS so that the student intake can be doubled.
  6. **Procurement of two vehicles** for Kisaware District to support PHC services in the area. It will be explored to what extent the transport can benefit the GHAWA education program.



**Practical skills training and learning environment**

### *On the job training and registration in Tanzania*

Seven Western Australian (WA) nurses and midwives (including the GHAWA Program Director) are currently registered with the Tanzanian Nurses and Midwives Council (TNMC) effective November 2010 for 12 months (Names can be availed if need be). This is a licensed requirement in order for overseas nurses and midwives to practice as a registered professional in Tanzania and GHAWA was particularly keen to demonstrate that their personnel working in Tanzania would be competent in line with TNMC rules and regulations. Of note all 7 WA nurses and midwives are also currently registered in WA with the Australian Health Practitioner Regulation Agency. The TNMC license to practice enables the WA nurses and midwives to:

- Practice clinically as a registered nurse and midwife in Tanzania,
- Provide nursing education in Tanzania within the clinical and academic environment,
- Supervise nursing students while on clinical placements in the Tanzania health care setting.

### *Timeline 2011-2013*

The GHAWA support will be provided in a two-year timeframe. The expected period will be from July 2011 to August 2013. The start of the program will depend on the AusAID approval procedures and the contractual arrangements. A detailed time line per objective and output has been attached as a separate Excel sheet.

## **3.5 Summary budget**

### *Efficient use of resources*

The GHAWA team has explored several options to assess to what extent the AusAID Grant can be utilized in the most efficient way. It was evident that sending Tanzanian students to Western Australia to study on Masters degree programs would absorb a large part of the budget. Similarly, Masters level programs delivered in Tanzania by Australian academics would be very expensive. Balancing between the different modalities in the program, it was clear that supporting Tanzanian tutors to study for Masters degrees with regional providers, together with three month rotations of Australian academics to provide faculty support and delivery of short courses, was the better option.

### *One budget option*

GHAWA prepared a budget for the value of \$ 998,980 that is fully costed per objective and the different modalities under each objective. The budget includes costing for:

- Master degree courses.
- Replacement tutors.
- Expert placement and a package.
- Package of expert courses. The costs per participant per day are a realistic calculation for Dar es Salaam.
- Text books and learning resources.
- Skills lab support.
- Renovation of classrooms.
- Inception phase of two weeks.
- Procurement of two multi-purpose vehicles. The budget for the two vehicles has been reduced from \$ 250,000 to \$ 150,000. The GHAWA team feels that – given the history – there is a moral obligation to provide this support. Note also that the initial discussions between Australian Commonwealth and Western Australian governments considered apportioning the whole \$ 1M budget to transportation provision.

### *GHAWA Contribution*

The Department of Health for Western Australia (WA) support GHAWA's endeavours and to enable its function contributes to the following:

- Provide a Program Director and a Program Manager position to manage the GHAWA Program Office,
- Provide grants to WA nurses and midwives within the public health sector that wish to undertake international aid work, and
- Provide financial assistance through community leave support to employers within the public health sector that support their individual health professional staff undertaking aid work in rural Australia and developing countries. Funding support includes the provision of voluntary clinical experts on two weeks rotation (where appropriate) to enhance GHAWA aims in Tanzania by providing further master classes and education. This will compliment the support provided by the nursing and midwifery academics and clinical experts rotating three monthly as per the proposal.
- The total financial contribution from the WA Department of Health over the two year period equates to \$ 2.14 million. In addition, the 5 GHAWA universities will provide in-kind support to the value of \$ 542,000 (See breakdown in Annex 3).
- The total contribution (in cash and in kind) will be \$ 2,375,750.

Table 4: Contributor	Type of contribution	Total for GHAWA 2-year program
WA Department of Health	Budget	\$ 2,144,125 <sup>6</sup>
5 GHAWA Universities	In kind	\$ 542,000
Total contribution	Combined	\$ 2,375,750

### Budget summary

#### Budget Options Summary: GHAWA Tanzania Program

Table 5: Budget summary	Option 1
Cost item	Total
<b>Objective 1</b>	
1. Master degree courses	\$ 98,000
2. Replacement tutors from Tanzania	\$ 50,400
3. Expert placements from Australia	\$ 360,000
Expert accommodation	\$ 52,800
Expert airfares	\$ 30,000
Local transport in Tanzania (experts)	\$ 10,080
Visa and immunizations (experts)	\$ 3,600
Insurance	\$ 2,400
Communication	\$ 7,200
4. Package of expert courses	\$ 135,000
5. Learning Resources and Textbooks	\$ 12,000
6. Operational research	\$ -
Subtotal 1	\$ 761,480
<b>Objective 2</b>	
7. Clinical mentorship training	\$ -
Subtotal 2	\$ -
<b>Objective 3</b>	
8. Contribution to skills lab	\$ 20,000
9. Skills training	\$ -
Subtotal 3	\$ 20,000
<b>Objective 4</b>	
10. Renovation classrooms in MAPMS	\$ 30,000
Subtotal 4	\$ 30,000
<b>Objective 5</b>	
11. Management, Monitoring and Evaluation	\$ -
12. Inception phase	\$ 37,500
Subtotal 5	\$ 37,500
<b>Objective 6</b>	
13. Procurement or lease of 2 cars	\$ 150,000
Subtotal 6	\$ 150,000
Grant Total	\$ 998,980

### Budget explanatory notes

#### Budget line item: Master degree courses

GHAWA has opted to support Master courses initially in the East African Region. This is a cost effective option. The budget included Master course tuition fees with inclusion of some living expenses.

#### Budget line item: Expert placements

The concern of AusAID regarding this budget component has been discussed. The GHAWA team looked carefully into the budget for the expert placements from Australia and did –for the time being- not have the opportunity to reduce this budget component.

The proposed sum is intended to provide salary and associated 'on cost' for the replacement of Western Australian academics and experienced nurses / midwives working in Tanzania on 3 month rotations. It should be realised that these individuals are **not** government employees. Furthermore **no** funding is sought for the salary of any individuals involved in the managerial operation of the GHAWA program.

<sup>6</sup> This is based on 2011 – 2013 funding support from WA DoH Contribution



Whilst the sum represents a significant proportion of the overall budget proposal, it is indicative of the salary costs associated with the experienced individuals identified as having the most appropriate skill set to maximise program delivery in Tanzania, that is a combination of experienced academics and clinicians.

The 5 universities within the GHAWA partnership, plus the WA Health Department, are already committed to making a significant contribution to the costs of the program (see main text) and are currently not prepared to absorb further costs associated with the replacement of their staff members on placement in Tanzania. Given the intent to have personnel take up placements of 3 month duration in Tanzania, as recommended by AusAID, it is important that GHAWA is still able to maintain service provision within WA whilst maintaining this commitment. As such, provision has been made within the budget to replace key academics and health professionals should this be required. Note that it may eventuate that some individuals are able to be deployed without the need to fully fund their replacement. If this turns out to be the case the excess budget identified for this area will be utilised elsewhere in the program delivery.

#### **Budget line item: Provision of vehicles**

The concern of AusAID regarding this budget component has been carefully looked at and discussed. It is evident that the management arrangements for the transport need to be in place and agreed upon with AusAID before the transport be either procured or leased. The various options still need to be explored in more detail.

GHAWA fully understands the logistical and technical challenges of providing such vehicular support to local communities in Tanzania and will work with AusAID to ensure that all appropriate steps are followed. The initial consideration is to engage in a leasing agreement with a third party organization having expertise in provision of similar vehicles. For example, the internationally renowned 'Riders for Health' organization ([http://www.riders.org/our\\_work.aspx](http://www.riders.org/our_work.aspx)) currently manages 8 vehicles on behalf of the Diocese of Masasi. The Diocese has a medical clinic and provides outreach healthcare to the local communities<sup>7</sup>. GHAWA discussion with 'Riders' has indicated that the two proposed vehicles could be accommodated as part of their existing Tanzanian operation. However, this option still needs to be explored and discussed further.

The genesis of the GHAWA program's proposed operation in Tanzania was premised on an initial agreement between the then Australian Minister for Foreign Affairs and Minister for Health, Western Australia, to provide assistance to the government of Tanzania with their proposal to implement roll-out of a national fleet of motorcycle ambulances. The funding proposed for this initiative was \$ 1M. Further discussions reached an agreement that the sum could be reduced to \$ 250,000 and the balance used to develop an assistance program in Tanzania, delivered by Western Australia on behalf of the Commonwealth. Ongoing discussions with the Tanzanian Ministry of Health and Social Welfare (MOH&SW) led to the realization that the motorcycle ambulance program was to be fully funded from MOH&SW resources. As a result of ongoing discussion and negotiation with AusAID, the budget allocation for the 2 multi-purpose vehicles has been reduced to \$ 150,000. This amount would be sufficient to include ambulance equipment. However, if the full amount may not be required, the balance of the funds will be utilized for program support.

GHAWA work in Tanzania has opted to include the provision of clinical support (in association with placement of WA student nurses and their supervisors) to the dispensary located at Masanganya, and the primary health care centre at Masaki, both in the Kisaware District of Pwani. Discussions with clinical managers and community leaders have led to the conclusion that a more appropriate realisation of the commitment to providing assistance in patient transportation would be to deploy a multi-purpose vehicle at each of these locations. The initial idea is that the vehicles would act variously as a means of transporting patients from their village areas to the community clinics (people have to walk up to 18km at present) and providing a means of emergency transportation of acutely ill patients to Kisaware District Hospital and / or Muhimbili hospital, Dar es Salaam. After the start of the GHAWA program, this idea will be explored further and also the linkage between the transport and the GHAWA program in the two HTI will be looked into and a concrete transport plan will be prepared. Note that funding from the Global Fund has now been allocated for the provision of two new buses for student transport at HKMU.

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<sup>7</sup> Riders began working with the Diocese in 2003, providing them with advice on appropriate vehicles and equipment. The Diocese also sent one of its staff members to Riders' International Academy of Vehicle Management in Harare, Zimbabwe to complete the course in fleet management. There they learnt the skills needed for running a fleet of vehicles successfully, with no breakdowns. The Diocese also sent a staff member to see the how Riders' partner in Mbirikani, Kenya, are using Riders' system, and how it is transforming their programmes.



**Budget option: External review / access to technical expertise**

GHAWA appreciated the suggestion of AusAID to include \$ 30,000 for external international health technical advice. However, it was felt that this would be a significant sum in the budget. Therefore GHAWA opted to investigate alternative means of accessing such expertise.

Colleagues within the WHO Collaborating Centre for Nursing, Midwifery, and Health Improvement at the University of Sydney (UTS) have indicated their willingness to assist GHAWA with an external review and provision of technical support. This relationship is strengthened by one of the GHAWA university partners – Curtin University – recently agreeing a memorandum of understanding with UTS to facilitate joint working in international health development. Combined with the ability and commitment of the GHAWA management team to address internal reporting requirements, GHAWA believes that this option will provide a comprehensive approach to ongoing review and assessment of the program in Tanzania.

## 4.0 IMPLEMENTATION ARRANGEMENTS

### 4.1 Management of the GHAWA Program

#### *GHAWA Strategic Management Team*

The Western Australia (WA) Health System is managed by a State Health Executive Forum. This governing body is headed by a Director General. One of the positions in State Health Executive Forum is Chief Nurse and Midwifery Officer. GHAWA falls under the responsibility of this office.

A strategic management team has been established for GHAWA (Annex 4). This governing body is chaired by the WA Chief Nurse and Midwifery Officer, currently held by Adjunct Associate Professor Catherine Stoddart. Key internal and external stakeholders from across the WA Health and University sectors form the strategic committee. Functions include (but not limited to):

- Provide strategic input to support the objectives of GHAWA.
- Provide executive support to implement GHAWA's objectives.
- Collaborate as a group of WA nursing and midwifery health experts to assist in building capacity and capability in developing health care systems.
- Leading WA Nursing and Midwifery in Global Health Agendas

The GHAWA strategic management team consists of the ten members. A detailed profile can be provided if need be.

Table 6: Name and Title	Position
Adj Associate Professor Catherine Stoddart	Chief Nurse and Midwifery Officer WA Department of Health
Adj Associate Professor Robyn Collins	WA State Manager, Australian Health Practitioner Regulation Agency
Professor Phillip Della	Head of School of Nursing and Midwifery, Curtin University
Associate Professor Heather Gluyas	Deputy Dean School of Nursing and Midwifery Murdoch University
Professor Selma Allie	Dean, School of Nursing University of Notre Dame Australia
Professor Yvonne Hauck	School of Nursing and Midwifery Curtin University
Associate Professor Christopher Churchouse	School of Nursing and Midwifery Edith Cowan University
Adj Associate Professor Graeme Boardley	Executive Director of Midwifery, Nursing & Patient Support Services, Women & Newborn Health Service. King Edward memorial Hospital
Mr. Jeremy Higgins	Director Nursing Workforce and Reform, WA Country Health Service
Associate Professor Rosemary Saunders	School of Population Health University of Western Australia

The strategic management team has established three subcommittees.

- Clinical Placement Subcommittee
- Research Subcommittee
- Education Subcommittee

These subcommittees draw on clinical, academic and research nursing and midwifery experts from across WA to fulfill the GHAWA activities. Each member of GHAWA strategic management committee provides representatives from their organisation to support and fulfill the GHAWA initiatives. The profile of each subcommittee member can be provided if required.

#### *GHAWA – Program Office*

The Program Office of GHAWA consists of three personnel (see brief profiles in Table 7). Some of the key functions includes (but not limited to):

- The Program Director will undertake leadership functions and engagements with local and international Ministerial counterparts to identify key areas of work ensuring that the program objectives are met and enabling cohesive partnerships and collegial relationships (see for a more detailed description below).
- The Program Manager undertaking the development of policies and procedures, logistical program management, monitoring and evaluation of programs and financial management. The rotation of the experts and the preparation for the three-month placements will be an important task.
- The Program Officer provides research and data analysis support, and enquires maintenance.
- Of note, the Chief Nurse and Midwifery Office further provide (in-kind) administration and marketing support for GHAWA.

The Department of Health WA funds Curtin University to second its Professor of Transcultural Health Improvement to act as Director of the GHAWA program on the basis of 0.5 FTE. Should the current post holder cease to be available under this arrangement at some point in the future (there is no indication that this will be the case during the currently proposed program in Tanzania), an individual with similar skills and experience will be identified.

The Director's role includes the following responsibilities to the overall GHAWA program, including the proposed Tanzanian operation:

- Overall strategic direction of the program in liaison with the Chief Nurse and Midwifery Officer, WA Health.
- Leadership and management of the program office.
- Acquittal of program objectives as determined by the GHAWA Strategic Management Committee.
- An interface between the WA government (via Minister of Health) and the program.
- A link between the Commonwealth Chief Nurse and Midwifery Officer and WA counterpart with respect to state contribution to international nursing and midwifery health endeavour.
- Responsibility for building of partnerships with other Australian and regional organisations having similar aims and objectives to the GHAWA program.
- Sourcing funding to support ongoing development of the program.
- Maintaining GHAWA cohesiveness through ongoing briefing and dialogue with partners, including all 5 WA universities.
- Ensuring integrity of GHAWA operations in partner countries and alignment with other 'in-country' programs and the strategic direction of governmental health systems.
- A focal point for public relations between GHAWA and any third parties having an interest in the operation of the program.

Table 7: Position	Profile
Professor Mark Jones Program Director	<ul style="list-style-type: none"> <li>○ Registered Nurse, BSc (Hons) Nursing Graduate University of the South Bank</li> <li>○ Masters in Health Policy, Bristol University, UK</li> <li>○ Doctor of Social Science, Bristol University, UK</li> <li>○ Primary Care Policy Adviser at the Royal College of Nursing (UK)</li> <li>○ Director of the UK's Community Practitioners' and Health Visitors' Association</li> <li>○ Chief Nurse, New Zealand (NZ) Ministry of Health 2005-2010</li> <li>○ As Chief Nurse of NZ, worked with the WHO Western Pacific Regional Office (WPRO) to develop the Collaborating Centre for Nursing and health Improvement at UTS Sydney, and to enhance leadership capacity and capability within Pacific island nations</li> <li>○ Professor of Transcultural Health Improvement, Curtin University</li> </ul>
Ms Jenni Ng Program Manager	<ul style="list-style-type: none"> <li>○ Registered Nurse, Bachelor of Nursing, Edith Cowan University</li> <li>○ Staff Development Nurse and Educator</li> <li>○ Experienced in nursing education and curriculum development for WA Department of Health</li> <li>○ Currently candidate of Master of Health Management, Quality, and Leadership</li> </ul>
Program Officer – (Vacant)	Appointment due April 2011

### *Financial management*

Financial management for the GHAWA Grant will be managed by the Program Office and will follow the financial system of the WA Department of Health and will meet the reporting requirements as stated in the contract.

At this stage it is still unclear to what extent financial transactions will take place between GHAWA and the partner organisations in Tanzania. Also the procurement arrangements for the renovation, skills lab equipment and the cars will need to be developed. This will be explored further during the inception phase.

### *Inception phase*

It is proposed to start the AusAID supported GHAWA program with a two week inception phase. In this period a team consisting of the Program Director, an academic and an experience nurse/midwife will meet with the two partner organisations to prepare the program and to establish the management and support modalities. During the inception phase, the practical details for the placement and housing of the experts will be prepared. The partner organisations will be requested to provide the required administrative support (if special documents are required).

A Memorandum of Understanding (MOU) will be drawn up between GHAWA (or their legal representative) and the two strategic partners. The MOU will provide the base for the two-year collaboration.

## 4.2 Monitoring and Evaluation

GHAWA recognizes the importance of ongoing monitoring and evaluation of its program in Tanzania in order to ensure AusAID and WA Health that program resources are used to optimum effect, but more importantly to chart a positive contribution to the health system through an effective collaboration with in country partners.

The Monitoring and Evaluation (M&E) will be based on the Logical Framework. Monitoring and evaluation of the initial 2 year GHAWA program in Tanzania will be carried out through several means, including:

- Reporting to AusAID as per contract rules and regulations.
- Reporting to the Director General (DG), WA Health, and the Minister for Health WA (internal to WA health system).
- Reporting to and scrutiny by the GHAWA Strategic Management Committee and associated sub-committees.
- Quarterly reports will be provided by the GHAWA Program Office to the Strategic Management Committee. The reports will include progress and financial reports and will include an ongoing assessment of the delivery of objectives, budget utilisation, and compilation of feedback from GHAWA representatives on rotation in Tanzania.
- Six monthly reports will be provided to the DG and Minister for Health WA detailing the achievements of the program against the original aim of assisting the Tanzanian government in addressing MDGs 4 and 5, and the provision of patient transportation services. Budget analysis will demonstrate effective spending of WA Health contributions to the AusAID funded objectives.

In country monitoring will be done on a regular base by GHAWA program director or the program manager.

- The GHAWA program director or manager will visit the Tanzanian partners at Hubert Kairuki Memorial University (HKMU) and the MOH&SW Muhimbili Advanced Practice Midwifery School (APMS) to obtain feedback against program objectives, and to discuss ongoing issues appertaining to 'on the ground' delivery with colleagues on rotation in country.
- Experts on rotation will be requested to provide an activity report on during their 3 month placement, with a focus on support provided to HKMU and APMS faculty and the delivery of short courses to Tanzanian academics, nurses and midwives.
- Representatives of the strategic partners will be requested to provide feedback as to their ongoing relationship with GHAWA and how their perceptions of the program meeting its objectives.
- GHAWA will seek technical international health support from the University of Sydney for internal reviews and ongoing technical assistance.
- At the conclusion of the initial 2 year program, GHAWA will commission an independent third party review of achievements against objectives. This has not been separately budgeted for but may be supported by AusAID or by GHAWA. This will be discussed after the start of the program.

## 4.3 Sustainability

The GHAWA support will be provided to two well established institutions in Tanzania. Both institutions are not financially dependent on the GHAWA funding. The MOH&SW Advance Practice Midwifery School is fully supported by the government. The HKMU Faculty of Nursing is generating income from the tuition fees. If the intake of students will increase, the financial income to the faculty will also increase.

It is expected that different support modalities will become available to both schools (e.g. Global Fund). The AusAID funding will be one of the technical support modalities. It is expected that the institutions will benefit from the GHAWA support and will be able to provide improved training. It is to be expected that both institutions will continue after the AusAID funding will stop.

## 4.4 Risks

The critical risks for the GHAWA program seem limited as it is a small scale intervention for a limited period of time. However it is will be important to monitor potential risks:

1. The Global Fund support to the improvement plan of the MOH&SW may face funding gaps. This might affected the implementation of the HKMU improvement plan and may slow down the increased intake of students.



2. As different development partners will support skills lab facilities and renovation, it is critical to avoid duplication of activities. It will be important to allocate the funding in a rationale and well informed way.
3. Students that will be selected for a Master degree are expected to return to their institute after the training. It will therefore be important to ensure a contractual bonding arrangement between the partner organisations and the students.
4. The renovation in APMS will lead to an increased intake of students. This will also require an increased number of tutors in the school. It will be important to discuss this with the MOH&SW so that allocation of staff and salaries can be integrated in the budget planning.
5. As the advanced diploma level will be stopped completely and as the BSc curricula for the APMS has not been approved yet, there might be a temporary reduction in student intake until the BSc course can take off.

## **4.5 Cross-Cutting Issues**

### *Gender*

Gender has been considered in this proposal as a cross cutting issue and has been integrated in the design of the document. Gender is being addressed by focusing on the Maternal and Child health problems in Tanzania through the support of two Health Training Institutions. It is hoped that with the improved training of midwives, tutors and nursing students, the quality of services to pregnant women, mothers, infants and children will improve.

### *Child protection*

The GHAWA program will not be involved in working with children. There are no personnel positions that will work with children. All the program activities will focus on adult training in two Health Training Institutions (tutors and students), and their associated practice sites. Obviously, the midwife and nursing students will work with children in their health facilities. In the training it will therefore be important to address zero tolerance for child abuse.

### *Environment*

The GHAWA program is not involved in natural resource management or in environmental programmes. However -where relevant - environmental challenges and climate related risks will be addressed. This may be relevant to look into for the proposed renovation activities in one of the HTI.

## APPENDIX GHAWA PROPOSAL TANZANIA 2011-2013

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## **Appendix 1 Terms of Reference**

### **Terms of Reference: Design of the Global Health Alliance Western Australia (GHAWA)**

#### **1. Introduction**

The Global Health Alliance Western Australia (GHAWA) was formed in 2009 and embraces a partnership of 5 Western Australian nursing and midwifery education providers; Curtin University, Edith Cowan University, Murdoch University, Notre Dame University, and the University of Western Australia, working in collaboration with the Department of Health, Western Australia.

In 2009 following a visit to Tanzania by the Minister for Health Western Australia, Dr Kim Hames a commitment of \$ 1 Million was endorsed by the then Foreign Minister, Mr. Stephen Smith to support improving Maternal and Child Health in Tanzania. A proposal was submitted in July 2010 and appraised by AusAID. In February 2011, GHAWA submitted a revised application to AusAID. This has also been appraised and extensive comments were provided to GHAWA.

#### **2. Objectives of the Design mission**

The objective is to develop a design document that meets AusAID's quality principles and conforms to AusAID documentary standards. This assessment will be undertaken against AusAID's Managing the Development of a Design (Guideline 110).

#### **3. Scope of Work**

The consultant will work with a representative from GHAWA to prepare a document which:

- provides a fully costed proposal that presents a strong justification for the investment in terms of an activity's relevance to the country/sector strategies and Australia's global aid policy directions;
- outlines the goal and objectives of the activity and details the outcomes that AusAID expects to achieve through the investment;
- clearly identifies the risks for implementation and propose realistic risk management strategies;
- outlines a plan for implementation within which the activity can be managed, including critical activities required in the early stages of implementation which will lay the foundation for future implementation and any scaling up of funding;
- provides appropriate monitoring and evaluation to be undertaken and fed back for continuous improvement; and
- Provides the information necessary to form the basis for a funding agreement with a partner organization.

#### **4. Methodology**

Review relevant background materials including:

- Looking West: Australia's strategic approach to aid in Africa 2011-2015;
- GLOBAL HEALTH ALLIANCE WESTERN AUSTRALIA - Application for funding to AusAID: GHAWA Tanzania Project
- AusAID consolidated comments on application
- AusAID Managing the Development of a Design (Guideline 110); and
- AusAID AAMCH Implementation Plan (December 2010).

Jointly with the GHAWA representative, meet with relevant Tanzanian authorities and other stakeholder organisations, to determine and agree on how the activities of GHAWA should best fit within the existing Tanzania nursing and midwifery education framework. Incorporate findings of these interactions into design document.

Consultation as required with AusAID Africa staff based in Ethiopia.

## 5. Outputs

The outputs are a design document of not more than 20 pages plus annexes. The document should be guided by the following principles:

- **Objectives:** Have the objectives of the program been clearly described in the document
- **Relevant:** Contribute to higher level objectives of the aid program as outlined in country and thematic strategies.
- **Effective:** Contribute to the achievement of clearly stated objectives and continually manage risks.
- **Efficient:** Manage the activity to get maximum value for money from aid funds, staff and other resources.
- **Monitoring and evaluation:** Be able to effectively measure progress towards meeting objectives.
- **Analysis and learning:** Based on sound technical analysis and continuous learning.
- **Sustainable:** Appropriately address sustainability of the benefits of the activity after funding has ceased, with due account given to partner government systems, stakeholder ownership and phase out.
- **Gender equality:** advance gender equality and promote the role of women.
- Implementation plans and assumes proper efforts to ensure value for money.

## 6. Duration

The design work will take place in Tanzania and will take 9 days.

## 7. Selection criteria for the consultant

Experience with program/project design, evaluations and reviews:

- Knowledge of Tanzanian health sector
- Demonstrated strong design skills;
- Appropriate academic qualifications in public health;
- Excellent analytical, research and report writing skills;
- Track record of successful consultancies;

## 8. Management

The consultant will report directly to the First Secretary (Development Cooperation)  
Australian Embassy in Addis Ababa



## Appendix 2: Logical Framework GHAWA Tanzania Program 2011-2013

Goal	OVI Objectively Verifiable indicator	MOV Means of Verification	Assumptions
Improved Nursing and Midwifery capacity for tutors, nurses and midwives, in 2 public and private health training institutions and their associated practice sites, in Tanzania in 2-year period 2011-2013.	<ul style="list-style-type: none"> <li>Tutor capacity in HKMU and MOH&amp;SW Advanced Practice Midwifery School has increased.</li> <li>Intake of students in both institutes has increased.</li> <li>GHAWA has contributed to the overall national HRH and MMAM Strategic Plan and to the national annual target of 11,300 new student intake.</li> </ul>	<ul style="list-style-type: none"> <li>Academic level of tutors.</li> <li>Student admission registers.</li> <li>Student exams and results.</li> <li>National HRH statistics on student intake.</li> </ul>	<ul style="list-style-type: none"> <li>The MOH&amp;SW will remain committed to the implementation of the HRH agenda and to the accelerated implementation of the Global Fund HSS program (infrastructure and training support).</li> </ul>
Objectives			
7. To assist nursing and midwifery tutors employed by the HKMU Faculty of Nursing and in the MOH&SW Advanced Practice Midwifery School in further developing their knowledge, and clinical skills in their areas of specialty.	<ul style="list-style-type: none"> <li>Tutors appropriately educated to teach students to in line with the new national curriculum developments (BSN level and diploma level) and provide high quality education.</li> <li>Training facilities have been enhanced for the new curricula requirements.</li> <li>A cadre of nurses and midwives develops with enhanced clinical skills leading to better care outcomes</li> </ul>	<ul style="list-style-type: none"> <li>Tutors are able to demonstrate an ability to deliver high quality education as seen in student pass rates and satisfaction with the learning experience</li> <li>Nurses and midwives at practice sites associated with HKMU Faculty of Nursing and the MOH&amp;SW Advanced Practice Midwifery School report being more able to deliver quality care outcomes</li> </ul>	<ul style="list-style-type: none"> <li>Tutors actively engage in the learning opportunities provided and actively use their new skills in the provision of education</li> <li>Nurses and midwives who have access to additional education and training provided by experienced WA health professionals and academics are able to deliver better care</li> </ul>
8. To strengthen the clinical mentorship capacity of nursing and midwifery staff at the HKMU Faculty of Nursing and MOH&SW Advanced Practice Midwifery School in 5 practice sites relevant to their areas of specialty.	<ul style="list-style-type: none"> <li>Experienced nurses and midwives at practice sites associated with HKMU Faculty of Nursing and the MOH&amp;SW Advanced Practice Midwifery School are more able to assist students in learning how to apply the theoretical skills in a real practice environment</li> <li>Improved practical nursing and midwifery skills and care for patients.</li> </ul>	<ul style="list-style-type: none"> <li>Experienced nurses and midwives at practice sites associated with HKMU Faculty of Nursing and the MOH&amp;SW Advanced Practice Midwifery School report being better prepared and able to mentor students</li> <li>Students report effective mentoring as they transition from the academic to practice environment</li> </ul>	<ul style="list-style-type: none"> <li>Nurses and midwives receiving additional training as mentors utilise the acquired knowledge in practice</li> <li>Provision of additional training leads to improved practice in a mentorship role</li> </ul>
9. To contribute to skills lab development of nursing and midwifery staff at the HKMU Faculty of Nursing and in the MOH&SW Advanced Practice Midwifery School.	<ul style="list-style-type: none"> <li>Skills labs meet the National guidelines.</li> <li>Tutors are able to make effective use of skill labs at their schools</li> <li>Students are prepared to meet the challenges of actual practice in a safe and controlled environment</li> <li>Patients benefit from receiving care from students who are better prepared for practice</li> </ul>	<ul style="list-style-type: none"> <li>Tutors deliver quality education in a skills lab environment as confirmed by colleagues from WA with skills lab experience</li> <li>Students report being prepared for actual practice environments having worked in the skills lab</li> </ul>	<ul style="list-style-type: none"> <li>Skills labs are constructed at HKMU and the MOH&amp;SW Advanced Practice Midwifery School</li> <li>WA personnel with appropriate skills lab experience are able to be deployed in Tanzania</li> <li>Students prepared in a skills lab are more ready to meet the challenges of an actual practice environment</li> </ul>

Objectives	OVI Objectively Verifiable indicator	MOV Means of Verification	Assumptions
10. To assist academic staff in developing strategies towards increasing student intake at the HKMU Faculty of Nursing and in the MOH&SW Advanced Practice Midwifery School.	<ul style="list-style-type: none"> <li>An improved skills base of tutors and access to enhanced premises facilitates an increase in student numbers</li> </ul>	<ul style="list-style-type: none"> <li>Student numbers increase in line with improved qualifications of faculty (for example uplift to Masters level facilitates learning of baccalaureate students) and access to more higher specification classroom space</li> </ul>	<ul style="list-style-type: none"> <li>Improving the skills of tutors allows more students to be educated to a higher level</li> <li>Student intake improves at HKMU as a result of more highly educated faculty being available</li> <li>Increased classroom availability at the MOH&amp;SW Advanced Practice Midwifery School is matched by provision of additional tutors and student fee subsidies</li> </ul>
11. To ensure adequate Program Management and Monitoring and Evaluation	<ul style="list-style-type: none"> <li>The GHAWA program is effectively managed and networked with similar agencies on the ground in Tanzania</li> <li>The GHAWA support is well embedded and is complementary to interventions from other agencies (e.g. Jhpiego, AIHA, CDC, I-TECH, MOH, Global Fund).</li> </ul>	<ul style="list-style-type: none"> <li>GHAWA delivers the program within budget.</li> <li>Partners are appraised of progression of program delivery and remain positive about their association with it</li> <li>WA personnel on rotation in Tanzania report being well supported by the program office</li> <li>AusAID is positive about program delivery</li> </ul>	<ul style="list-style-type: none"> <li>Adequate resource remains available for the GHAWA program office</li> </ul>
12. To assist in improving access to Emergency Obstetric Care hospital facilities and to improved PHC services (in line with the MMAM Strategy).	<ul style="list-style-type: none"> <li>The provision of two dual purpose vehicles (patient transport to clinics / emergency transfer of patients) is seen to have a positive effect on attendance and access to emergency care.</li> <li>Increased access to facilities is in line with core aims of the GHAWA program, that is to enhance maternal and child health as a contribution toward meeting MDGs 4 and 5.</li> </ul>	<ul style="list-style-type: none"> <li>Attendance increases at primary care clinics with people reporting less duress compared to making the journey by foot.</li> <li>Improved access to emergency care for obstetric emergencies contributes to improved maternal and infant mortality rates</li> </ul>	<ul style="list-style-type: none"> <li>Vehicles can be procured and deployed as indicated and used for the purpose intended.</li> <li>Improved access to clinics and emergency care can be associated with better health outcomes</li> </ul>

## GHAWA Tanzania Program – Outputs

Outputs	Objectively Verifiable indicator (OVI)	Means of Verification (MOV)	Assumptions
1.1 Four 2-year Master degree courses in Nursing and Midwife related topics	<ul style="list-style-type: none"> <li>Four tutors gain qualifications at Masters Degree level</li> <li>Four tutors are able to provide education in line with nationally revised curriculum for nursing and midwifery education</li> </ul>	<ul style="list-style-type: none"> <li>Tutors provide evidence of course completion and qualification</li> <li>Tutors are recognised by accreditation authorities; MOHSW, NACTE, and TCU as having appropriate education to teach undergraduates to Bachelors level</li> <li>HKMU and MOH&amp;SW Advanced Practice Midwifery School formalise retention arrangements (such as bonding contracts) with their tutors</li> </ul>	<ul style="list-style-type: none"> <li>Tutors participate in the funded courses at a level sufficient to attain the qualification</li> <li>Tutors return to their positions at HKMU and MOH&amp;SW Advanced Practice Midwifery School</li> </ul>
1.2 Provision of 12 academics and expert nurses / midwives for placements in HKMU Faculty of Nursing and in the MOH&SW Advanced Practice Midwifery School	<ul style="list-style-type: none"> <li>WA academics and expert nurses / midwives provide education in contemporary aspects of teaching and practice development as requested by the faculty of HKMU and MOH&amp;SW Advanced Practice Midwifery School</li> <li>Tutors at HKMU and MOH&amp;SW Advanced Practice Midwifery School are additionally supported in the absence of their colleagues studying for Masters Degrees.</li> </ul>	<ul style="list-style-type: none"> <li>WA academics and expert nurses / midwives actually provide the education as per attendance lists and course published course programs</li> <li>Tutors report feeling supported by their WA colleagues and are able to deliver curriculum content in the absence of their colleagues</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate WA academics and expert nurses / midwives are identified to spend time in Tanzania</li> <li>Tutors at HKMU and MOH&amp;SW Advanced Practice Midwifery School actively engage with their WA colleagues</li> </ul>
1.3 Equivalent of 4 FTE Tanzanian tutors replacing HKMU Faculty of Nursing and in the MOH&SW Advanced Practice Midwifery School tutors who are in Master courses.	<ul style="list-style-type: none"> <li>Tanzanian nurse tutors are hired to provide replacement equivalent to 4 FTE</li> <li>Four tutors from HKMU and MOH&amp;SW Advanced Practice Midwifery School are free to apply themselves to full time study, improving opportunity for success and limiting time away from their work place.</li> </ul>	<ul style="list-style-type: none"> <li>Tanzanian tutors are engaged and are able to deliver curriculum in replacement of tutors from HKMU and MOH&amp;SW Advanced Practice Midwifery School engaged in Masters Studies.</li> <li>Studying tutors committed to full time study</li> </ul>	<ul style="list-style-type: none"> <li>Tanzanian tutors are available</li> <li>Replacement tutors have skills commensurate with delivering the curriculum at HKMU and MOH&amp;SW Advanced Practice Midwifery School</li> <li>Studying tutors use their freed up time to study</li> </ul>
1.4 Provision of 18 three-day courses in specific topics for 360 tutors and experienced nurses and midwives	<ul style="list-style-type: none"> <li>Tutors from HKMU and MOH&amp;SW Advanced Practice Midwifery School are taught new approaches to education</li> <li>Experienced nurses and midwives from practice sites associated with these schools gain new knowledge in agreed topics, facilitating improvements in practice and care delivery</li> <li>Students and junior nurses and midwives will have greater opportunity to learn from tutors and experienced colleagues, so improving their ability to deliver quality care</li> </ul>	<ul style="list-style-type: none"> <li>WA academics and experienced nurses / midwives deliver on an agreed plan of educational and practice skills update courses.</li> <li>Tutors and experienced nurses and midwives are able to demonstrate improvements in their ability to teach and practice effectively with associated reporting of enhanced job satisfaction</li> </ul>	<ul style="list-style-type: none"> <li>WA academics and experienced nurses / midwives deliver the courses as agreed in a way that is acceptable to Tanzanian colleagues</li> <li>Sufficient numbers of tutors and experienced nurses / midwives are able to attend courses provided</li> <li>Course attendees actively participate</li> </ul>

Outputs	Objectively Verifiable indicator (OVI)	Means of Verification (MOV)	Assumptions
1.5 Provision of learning resources and text books for HKMU Faculty of Nursing and the MOH&SW Advanced Practice Midwifery School	<ul style="list-style-type: none"> <li>Up to date books are provided for 2 intakes of students at HKMU and the MOH&amp;SW Advanced Practice Midwifery School in line with curriculum requirements.</li> <li>Students have access to contemporaneous literature to facilitate their learning needs</li> </ul>	<ul style="list-style-type: none"> <li>Scholarly journal subscription and text books arrive at HKMU and the midwifery school in time for commencement of programs at the beginning of academic years 2011-12 and 2012-13</li> <li>Books are made available for students at each school</li> </ul>	<ul style="list-style-type: none"> <li>Recommended reading lists are provided by HKMU and the midwifery school</li> <li>It is possible to source appropriate numbers of books within the allocated budget</li> <li>Books and journals are made available to students</li> </ul>
1.6 Operational research to assess the impact of tutor training.	<ul style="list-style-type: none"> <li>Research is undertaken by WA academics and experienced nurses / midwives to validate the assumptions in the verification statements above</li> </ul>	<ul style="list-style-type: none"> <li>Outcomes anticipated in the MOV are proven, or the interventions are shown not to have been fully successful, so providing information for subsequent revision of approach.</li> </ul>	<ul style="list-style-type: none"> <li>WA academics and experienced nurses / midwives have the skills and time to undertake the research</li> <li>Appropriate local (Tanzania) and WA approval is gained to undertake the research</li> </ul>
2.1 Forty experienced nurses and midwives trained in clinical mentorship in practice sites associated with HKMU Faculty of Nursing and the MOH&SW Advanced Practice Midwifery School	<ul style="list-style-type: none"> <li>Forty experienced nurses and midwives acquire the skills required to be effective clinical mentors.</li> <li>Course participants are confident and effective in acting in mentorship roles.</li> <li>Students from HKMU and the midwifery school are provided with an appropriate mentorship experience during their clinical practice</li> </ul>	<ul style="list-style-type: none"> <li>Forty experienced nurses and midwives are recorded as participating in mentorship training as per attendance lists and course published course programs</li> <li>Participants report confidence in their ability to provide satisfactory mentorship</li> <li>Students report positive learning experiences in their practice placements</li> </ul>	<ul style="list-style-type: none"> <li>Forty experienced nurses and midwives are able to attend the courses</li> <li>Participants actively engage in the learning experience</li> <li>Participants are given time in their work to act as mentors</li> </ul>
3.1 Contribution to skills lab training for 20 tutors in HKMU Faculty of Nursing and in the MOH&SW Advanced Practice Midwifery School	<ul style="list-style-type: none"> <li>Tutors build on their knowledge gained from participation in programs provided by other donor agencies / NGOs as they work day to day with WA academics and experienced nurses / midwives with experience in effective use of skills labs</li> </ul>	<ul style="list-style-type: none"> <li>Tutors confidently and effectively use skills labs to prepare their students for practical experience</li> </ul>	<ul style="list-style-type: none"> <li>Appropriately skilled WA academics and experienced nurses / midwives are sources for placement in Tanzanian</li> </ul>
3.2 Provision of equipment for skills labs in HKMU Faculty of Nursing and in the MOH&SW Advanced Practice Midwifery School	<ul style="list-style-type: none"> <li>The skills labs have their equipment provision care of other donor agencies / NGOs augmented as appropriate</li> </ul>	<ul style="list-style-type: none"> <li>Skills labs have equipment necessary to effectively prepare students for practice experience</li> </ul>	<ul style="list-style-type: none"> <li>Other donor agencies / NGOs provided the bulk of equipment needed to fit out the skills labs</li> <li>GHAWA is able to fill gaps in equipment identified</li> </ul>



Outputs	Objectively Verifiable indicator (OVI)	Means of Verification (MOV)	Assumptions
4.1 Renovation of 2 classrooms in the MOH&SW Advanced Practice Midwifery School	<ul style="list-style-type: none"> <li>Contracts agreed and in place in line with Tanzanian government requirements</li> <li>Two classrooms are refurbished to a standard required to provide a positive learning experience for students and a satisfactory working environment for tutors and school staff</li> </ul>	<ul style="list-style-type: none"> <li>Classroom renovation is completed on schedule and enables intake of an additional 40 students.</li> <li>Students report an enhanced and positive learning environment</li> <li>Output of the MOH&amp;SW Advanced Practice Midwifery School is doubled within 2 years, improving the ability of the Tanzanian midwifery workforce to deliver effective obstetric care and contribute to meeting MDGs concerning maternal and infant health</li> <li>Tutors and school staff report a satisfactory working environment and do not see adverse conditions as a reason to leave the school – retention rates are good.</li> </ul>	<ul style="list-style-type: none"> <li>Contractors are sources and complete the renovation on schedule and within budget</li> <li>The renovation is completed to an agreed standard</li> <li>Tutor capacity is increased by MOHSW to cater for additional students</li> <li>MOHSW provides subsidies for course fees of additional students</li> <li>Additional students enrol</li> </ul>
5.1 Provision of management and monitoring support	<ul style="list-style-type: none"> <li>The GHAWA program is effectively managed, delivering on key objectives on schedule as agreed with AusAID</li> <li>Effective networking exists between the GHAWA program office in WA and teams on rotation in Tanzania. Two visits per year made to Tanzania by GHAWA program director and program manager.</li> <li>GHAWA is effectively networked with health related NGOs and aid agencies operating in Tanzania</li> <li>Appropriate reporting to GHAWA partners and AusAID</li> <li>Political commitment within WA (Minister for Health) is justified through effective program delivery</li> </ul>	<ul style="list-style-type: none"> <li>Data and reports gathered during the operation of the 2 year program indicate effective management and delivery on all objectives within budget</li> <li>Visits are made by GHAWA representatives to teams on rotation in Tanzania</li> <li>Ad hoc relationships are maintained by GHAWA representatives and colleagues in NGOs and aid agencies</li> <li>GHAWA representatives, from both the program office and teams on rotation, attend meetings of the NGOs and aid agencies nursing coordination group in Dar es Salaam</li> <li>Reports are seen to be useful by GHAWA partners and provide a good record of program delivery to AusAID</li> <li>Minister for Health is positive about GHAWA program operation in Tanzania</li> </ul>	<ul style="list-style-type: none"> <li>The GHAWA program office continues to be funded by WA Health Department</li> <li>The GHAWA program office has the capacity and capability to effectively manage the program</li> <li>Effective delivery of all program objectives is possible within the budgets provided by WA Health and / or AusAID</li> <li>Meetings are arranged in country with sufficient notice and minimal risk of cancellation to permit attendance by GHAWA representatives based in WA</li> <li>GHAWA continues to be supported by WA government</li> </ul>

Outputs	Objectively Verifiable indicator (OVI)	Means of Verification (MOV)	Assumptions
6.1 Procurement of 2 vehicles for Masanganya and Masaki PHC clinics (Kisaware Districts).	<ul style="list-style-type: none"> <li>Vehicles are procured within budget to provide dual options of patient transport to primary health care facilities from outlying rural areas, and emergency transport to Kisaware District Hospital</li> <li>Decrease in maternal and infant deaths due to lack of access of transport in the event of an obstetric emergency</li> </ul>	<ul style="list-style-type: none"> <li>Vehicles are deployed at agreed sites with satisfactory arrangements in place to ensure use as per contracted purpose.</li> <li>Contracts between GHAWA and HKMU describe ownership / custodial arrangements and usage of the vehicles</li> <li>Records are maintained of the number of patients brought into clinics using the transport and patients transferred on an emergency basis and outcomes of that transfer</li> </ul>	<ul style="list-style-type: none"> <li>It is possible to procure appropriate vehicles</li> <li>It is possible to negotiate satisfactory arrangements for management of the vehicles</li> <li>The vehicles are used for the purpose intended</li> <li>Transport availability in the event of an obstetric emergency results is associated with the rate of maternal and infant mortality</li> </ul>

### Appendix 3 Budget GHAWA Program

GHAWA Final Budget			Revised Option
Cost item	Unit cost AU\$	Quantity in total	Total
<b>Objective 1</b>			
1.Master degree courses	\$ 24,500/Course in Kenya (Nairobi University) including some living expenses	4 degree courses (all inclusive)	\$ 98,000
2.Replacement tutors from Tanzania	\$ 6,300/person for 9 month salary	4 tutors	\$ 50,400
3. Expert placements from Australia	\$ 30,000/person for 3 month period	12 experts	\$ 360,000
Expert accommodation	\$ 2,200/month for house rent	24 months	\$ 52,800
Expert airfares	\$ 2,500/ticket	12 tickets	\$ 30,000
Local transport in Tanzania (experts)	\$ 280/month	\$ 840/expert/3 mth rotation (12 experts)	\$ 10,080
Visa and immunisations (experts)	\$ 300 /expert	12 experts	\$ 3,600
Insurance	\$ 200/expert	12 experts	\$ 2,400
Communication	\$ 200/month	36 months (for 12 experts)	\$ 7,200
4. Package of expert courses	\$ 125/day/participant (all inclusive: venue hire, printing handouts and lunch) = \$ 375/course/participant	9 x 3-day courses for 20 participants/course/year = 180 participant/year = 360 participants in total	\$ 135,000
5. Textbooks & Learning Resources			\$ 12,000
6. Operational research	No additional costs		\$ -
<b>Subtotal 1</b>			<b>\$ 761,480</b>
<b>Objective 2</b>			
7. Clinical mentorship training	No additional costs (in the package)		\$ -
<b>Subtotal 2</b>			<b>\$ -</b>
<b>Objective 3</b>			
8. Contribution to skills lab	10,000 per skills lab	2 skills lab	\$ 20,000
9. Skills training	No extra costs		\$ -
<b>Subtotal 3</b>			<b>\$ 20,000</b>
<b>Objective 4</b>			
10. Renovation classrooms in MAPMS	15,000 per classroom	2 classrooms	\$ 30,000
<b>Subtotal 4</b>			<b>\$ 30,000</b>

Objective 5			
11. Management, Monitoring and Evaluation	(Input by WA Health Dept Management costs)		\$ -
12. Inception phase	2-week development of implementation plan	1 – 2 weeks visit by 3 persons	\$ 37,500
Subtotal 5			\$ 37,500
Objective 6			
12. Procurement or lease of 2 vehicles including ambulance equipment	\$ 75,000/vehicle	2 vehicles	\$ 150,000
Subtotal 6			\$ 150,000
Grant Total			\$ 998,980



## GHAWA Contribution to Tanzania Program

The following are funding estimates from the various contributors to GHAWA:

WA Department of Health funding support for GHAWA	Year 1	Year 2	Year 3
WA DoH Contribution	2010/11	2011/12	2012/13
Salary and Wages to support International Health programs	\$ 287,500	\$ 316,250	\$ 347,875
Grants and fellowships for International Health endeavours	\$ 490,000	\$ 740,000	\$ 740,000
Total	\$ 777,500	\$ 1,056,250	\$ 1,087,875
Total DoH reservation for 3-year support to International Health Programs = \$2,921,625. This includes the funding for the rotation scheme of experts (at two weeks time rotation per person. This is in addition to the 3 months rotation of clinical experts as budgeted within the AusAid proposal)			

WA University (Annual) Contribution in kind to GHAWA (Time, meetings, office support, logistics)		
Organisation	Cost per year	Cost for three years
Curtin University	\$ 174,000	\$ 522,000
Murdoch University	\$ 36,000	\$ 108,000
Edith Cowan University	\$ 11,000	\$ 33,000
University of Notre Dame Australia	\$ 40,000	\$ 120,000
University of Western Australia	\$ 10,000	\$ 30,000
Total	\$ 271,000	\$ 813,000

Contributor	Type of contribution	Total for GHAWA 2-year program
WA Department of Health	Budget	\$ 2,144,125 <sup>8</sup>
5 GHAWA Universities	In kind	\$ 542,000
Total contribution	Combined	\$ 2,375,750

### Explanatory notes

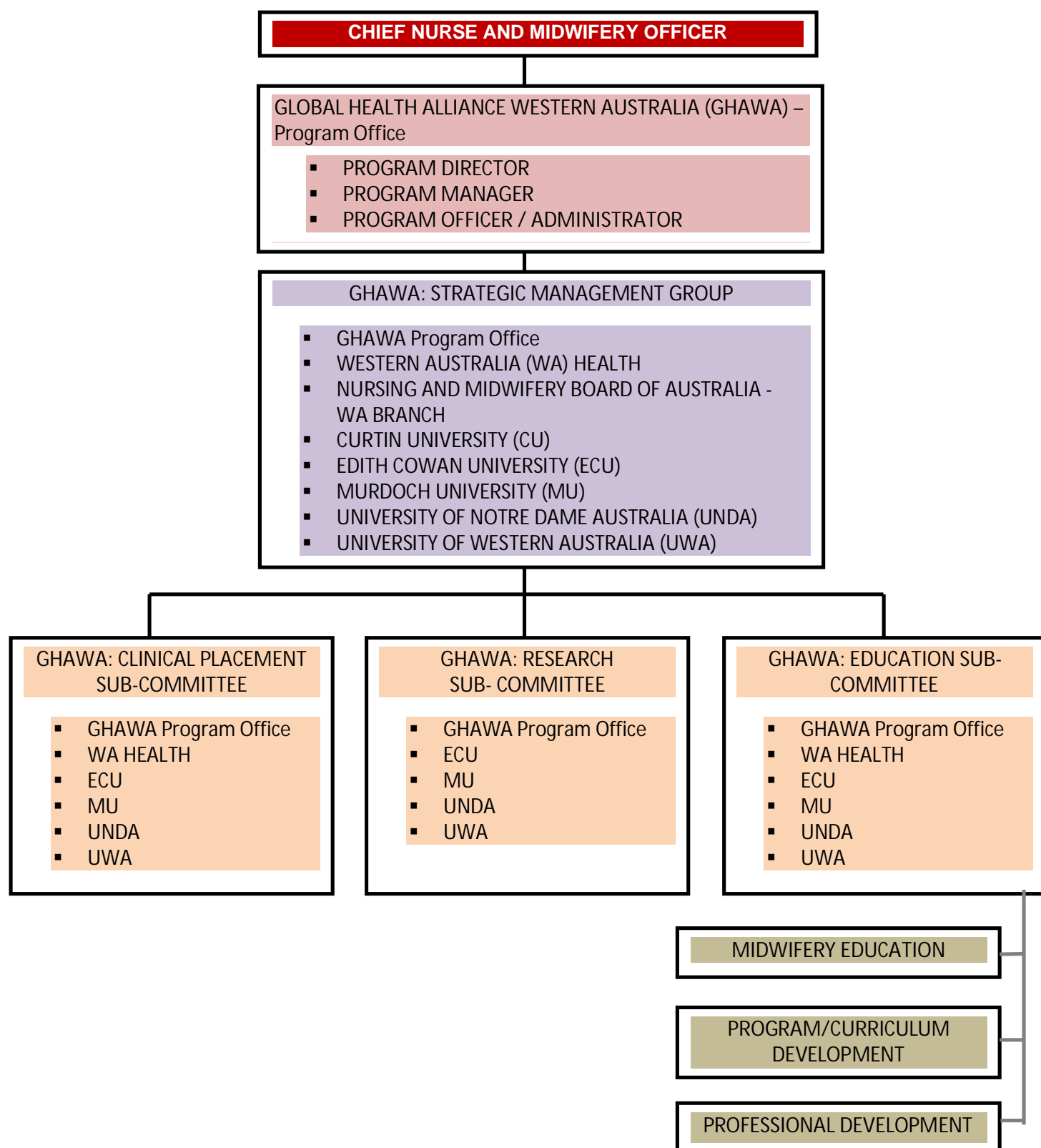
The Department of Health for Western Australia (WA) support GHAWA's endeavours and to enable its function contributes to the following:

- Provide a Program Director and a Program Manager position to manage the GHAWA Program Office,
- Provide grants to WA nurses and midwives within the public health sector that wish to undertake international aid work, and
- Provide financial assistance through community leave support to employers within the public health sector that support their individual health professional staff undertaking aid work in rural Australia and developing countries.
- The total financial contribution from the WA Department of Health over the two year period equates to \$ 2.14 million.

<sup>8</sup> This is based on 2011 – 2013 funding support from WA DoH Contribution

## Appendix 4 GHAWA Organogram

### GHAWA Governing Setting and Structure



## Appendix 5 Background information Human Resources for Health in Tanzania

### General Information Context Analysis

#### *General Policy Framework*

The Government of Tanzania (GOT) implements development programs in line with its national policy framework. The most important documents are highlighted in this paragraph.

- The Tanzania Vision 2025 is the National document providing direction for the long-term development of Tanzania. Tanzania wants to achieve by 2025 a high quality of livelihood for its citizens, peace, stability and unity, good governance, a well-educated and learning society and a competitive economy capable of producing sustainable growth.
- The National Strategy for Growth and Reduction of Poverty (NSGRP) is the successor to the Poverty Reduction Strategy Paper and is committed to the achievement of the Millennium Development Goals (MDGs). It focuses on growth and governance, and is a framework for all government development efforts and for mobilising resources.
- Since 1994 Tanzania has embarked on a 'Local Government Reforms Program' (LGRP). A new LGRP phase for the period July 2008 – June 2013 has started. The aim of the reforms is to establish decentralisation by devolution (planning, budgeting and management of government services). The program includes the Local Government Capital Development Grant (LGCDG). This system intends to provide discretionary development funds for rehabilitation and expansion of infrastructure to Local Government Authorities (LGAs).

#### *Health Policy Framework*

- The Ministry of Health & Social Welfare (MOH&SW) is currently implementing the revised Health Policy 2007. The mission is to provide basic health services in accordance with geographical conditions, which are of acceptable standards, affordable and sustainable. In 2007 the MOH&SW also developed the Primary Health Care Service Development Program (PHCSDP). This program is better known by the name of Mpango WA Maendeleo ya Afya ya Msingi 2007-2017 (MMAM).
- The objective of the MMAM program is to accelerate the provision of primary health care services for all by 2012. The main areas of the MMAM program will be strengthening the health systems, rehabilitation, human resource development, the referral system, increase health sector financing and improve the provision of medicines, equipment and supplies. A key component of the program will be the rehabilitation of existing health facilities and construction of new ones (aim is to have a dispensary in each village and a health centre in each ward). A critical element will be to increase the workforce in health by *increasing the throughput* in the existing training institutions by 100% and to upgrade schools for enrolled nurses, production of health tutors and the skills of existing staff.
- The third Health Sector Strategic Plan 2009 – 2015 (HSSP III) was launched in June 2009. The theme for the HSSP III is "Partnerships for delivering the Millennium Development Goals". The year 2015 is the target year for achievement of the Millennium Development Goals (MDGs) and the end year for the HSSP III. The HSSP III will be implemented with two other major programs; the MMAM (2007-2017) program and the Human Resources for Health Strategic Plan (2008-2013). The HSSP III covers 11 strategies that will need to be achieved during the period of implementation.

#### *Human Resource for Health Strategic Plan 2008-2013*

- The HRHSP 2008-2013 is the framework to guide the MOH&SW in planning, development, management and utilisation of the human resources in the health sector. The aim is to achieve; (1) an adequate number of qualified health workers for the country; (2) effective management of the human resources and; (3) equal distribution of the human resources.
- The HRHSP has selected a number of *quick wins* with the aim to achieve rapid and significant results. It is hoped that the quick results will contribute to a swift implementation of the strategic plan. For SolidarMed and the proposed project Strategic Objective 5 will be the most important objective as this

one deals with the partnership arrangements. The quick wins are linked to different Strategic Objectives and are divided as follows:

Table: HRHSP 2008-2013: Strategic objectives and quick wins	
Strategic Objectives	Quick Wins
SO 1: Human Resource Planning and Policy development.	<ul style="list-style-type: none"> <li>▪ Training key HRH staff at central level on HRH planning</li> <li>▪ Undertake initial planning work for the design of a comprehensive Human Resource Information System (HRIS).</li> <li>▪ Identify issues/develop a working paper for discussion by the inter-ministerial committee/taskforce.</li> <li>▪ Launch and disseminate the HRH strategic plan at all levels.</li> </ul>
SO 2: Strengthening Leadership and Stewardship.	<ul style="list-style-type: none"> <li>▪ Run a Leadership Development Program (LDP) for Director of Administration and Personnel (DAP) and Director of Human Resource Development (DHR) managers.</li> </ul>
SO 3: Education, Training and Development.	<ul style="list-style-type: none"> <li>▪ Train HRH Focal persons at district level on HR management.</li> <li>▪ Review and make recommendations on the decentralisation of the pre-service and in-service training.</li> </ul>
SO 4: Workforce Management and Utilisation.	<ul style="list-style-type: none"> <li>▪ Streamline recruitment bottlenecks</li> <li>▪ Track and monitor new recruited employees</li> <li>▪ Reallocate health workers to ensure equity in distribution.</li> <li>▪ Develop and advocate an improved incentive package for health workers in hardship areas.</li> </ul>
SO5: Partnership in Human Resource.	<ul style="list-style-type: none"> <li>▪ Assess capacity of private institutions in training and services delivery.</li> <li>▪ Support the private sector to scale up the training of health workers in line with the PHSDP/MMAM and report on the above assessments.</li> </ul>
SO 6: Human Resource Research and Development.	<ul style="list-style-type: none"> <li>▪ Identify priority areas for HRH research</li> </ul>
SO 7: Human Resource Research and Development.	<ul style="list-style-type: none"> <li>▪ Disseminate the HRH strategic plan and detailed budget to relevant government ministries and development partners.</li> </ul>

**Source: HRHSP 2008-2013**

### *Health and HRH situation at national level*

The education and training institutes are divided in Degree HTIs and Non Degree HTIs. Only 6 institutions in Tanzania provide for medical/ health technical/nursing Degree courses (at Master level and Bachelor level). The other institutions (approximately 117 institutions) provide non degree courses and educate for advanced diploma level, diploma level or certificate level. The courses train health professionals in the cadres Assistant Medical Officer (different specialisations), Clinical Officers, Health Officers, Nurses (different specialisations), Nurses/Midwives, Laboratory Assistants and Technicians, Pharmaceutical Technicians and Radiographers.

The MOH&SW has only one Nurse Tutor training school (Muhimbili). The Bugando College of Health Science (BUCHS) in Mwanza recently opened a Nurse Tutor training school. This is part of the Catholic St. Augustine University. It should be noted that Tanzania has no tutor training schools for any of the other health professions. These courses are provided by health professionals that have no specific tutor training.

### *Projected HRH gaps*

In the HRHSP 2008-2013 it has been estimated that Tanzania currently has 35,202 health workers. However, the *current* number of health facilities requires a total of 125,824 health workers (according to the official HRH establishment). This indicates a *gap of 90,722 health workers* (53,214 in the public sector and 37,508 in the private sector). The staff shortage is estimated to be 65% in the public sector and 86% in the private sector.

If the requirements of the PHSDP 2007-2017 are factored in, an *additional* number of 84,599 health workers will be required! The deficit will be exacerbated by a rapidly expanding population and an increased burden of disease (HIV/AIDS, TB, and Malaria). This contributes to increased attrition and demand on the health care system (HWI document 2008). The shortage of health workers is more pronounced in rural and hardship areas and among mid level workers such as clinicians, nurses, midwives, laboratory, pharmaceutical technicians, health officers and administrators. The most recent data on the HRH deficits can



be found in the Enrolment study 2009. Table below provides an overview of the most recent projection data on HRH deficits in Tanzania.

Table : Projections of Selected Key Health Workers for regional hospitals and lower facilities												
SN	Designation	Total Required	Present	Deficit	Adjusted Deficit **	No. of Institutions	Current production capacity	Projected production capacity	Envisaged Increase in Production	Course Duration	Production Estimate 2007/2008 - 2017/2018	Additional Institutions to fill deficits in 10 years
1	Clinical Officer	25,788	3,596	22,192	28,034	16	330	785	455	3	5,495	66
2	Dental Therapist	2,828	99	2,729	3,369	2	28	60	32	3	420	14
3	Enrolled Nurse	19,896	7,389	12,507	17,033	12	30	560	530	2	4,480	34
4	Health Officer	3,316	777	2,539	3,292	5	160	250	90	3	1,750	4
5	Laboratory Assistant	10,808	865	9,943	12,389	4	95	370	275	2	2,960	13
6	Laboratory Technician	448	458	-10	93	3	85	120	35	3	840	-3
7	Medical Recorder	4,070	328	3,742	4,663	1	15	30	15	2	240	18
8	Nursing Officer <sup>9</sup>	20,008	3,280	16,728	21,263	3	145	310	165	3	2,170	26
9	Optician/Optommetrist	234	55	179	232	1	15	30	15	3	210	0
10	Pharmaceutical Technician <sup>10</sup>	782	106	676	853	2	60	90	30	3	630	1
11	Physiotherapist	802	61	741	922	1	15	30	15	3	210	3
12	Radiographer	274	99	175	237	2	35	55	20	3	385	-1
	Total	89,254	17,113	72,141	92,381	52	1,013	2,690	1,677		26,900	175

Source: MOH&SW Enrolment Study 2009

Note to table:

- Community Health Workers (Multipurpose) to be trained in each of 94 district hospitals are not included in the above table
- Without additional schools only one quarter (1/8 for Nursing Officers) of the deficit will have been trained in the 10 year period
- The requirements will be higher if we include those for referral/specialist hospitals, MOH&SWSW HQ and training institutions
- \*\* Allows for Attrition of 23% of those currently present plus additional 22.6% of output to cater for private sector
- Calculation of the required additional schools is based on the average projected capacity of the current schools

From the Enrolment study 2009, it is evident that the tutor shortages for *all* the professional cadres are acute. Critical tutor shortages are seen in the trainings for; (1) Clinical Officers; (2) Nursing Officers; (3) Health Officers; (4) Laboratory Technicians; (5) Laboratory Assistant and (6) Pharmaceutical Technician.

The study among 58 HTIs indicates that there is a shortage of 158 nurse tutors. This is an average shortage of 3 tutors per school. It is estimated that the public HTIs have a tutor shortage of 74% and the private HTIs have a tutor shortage of 62% (HWI document 2008). The intake of Nurse Tutors is still very limited as there are only two nurse tutor schools in the whole country (and approximately 60 nurse training colleges). The annual output is estimated to be 25 nurse tutors per year (despite the fact that at least 160 tutors are already required in the current situation while scaling up of students is still ongoing).

<sup>9</sup> In Tanzania 'Nursing officer' is used to describe the Registered Nurse cadre of health workers, as opposed to Enrolled Nurses.

### *Funding mechanisms and capital investments for public and FBO HTIs*

The funding mechanisms for the public HTIs and the FBO/HTIs are fundamentally different. The MOH&SW funds most of the costs for the public HTIs. For the Financial Year 2008/2009, the MOH&SW allocated funds to 45 public HTIs. The total amount for running costs and investment costs was Tshs. 7,436,047,140/= (AUD\$ 4,824,633). This budget excluded the salary costs for the full time tutors and the payment per teaching session for the part time tutors. An additional source of funding is the tuition fee. The students in the public HTIs pay a cost sharing fee. This is on average Tshs 300,000/= per student per year for a diploma course and Tshs. 400,000/= per student per year for an advanced diploma course. This income assists the schools to part of the running costs.

The FBO/HTIs are mainly self sufficient. The Service Agreements (Between Government and FBO) do not yet provide for HTI funding (although this is under discussion). The MOH&SW provided in FY 2008/2009 Grant in Aid support to the 34 FBO/HTIs. The Grant in Aid funding is a lump sum amount per student per year. Currently this is Tshs 40,000/= (AUD\$ 26) per student per year. For the FY 2008/2009, the MOH&SW allocated a total of Tshs. 139,720,000/= (AUD\$ 90,653) to the FBO/HTIs. This amount was to support the training running costs for 3,461 students in the FBO/HTIs.

In order to finance the training of the students, the FBO/HTIs largely depend on the tuition fees of the students. The average annual tuition fee in 2008/9 was on average Tshs 1,150,000/= (AUD\$ 746 per year) but there is evidence that this has been increased considerably over the past months. The income from the annual tuition fees is used to cover the running costs of the FBO/HTIs.

The majority of the FBO/HTIs have been able to run the school with the annual income from the tuition fees. However, there is hardly any room to set aside money for major investments (e.g. construction, renovation, equipment, transport) that allow for an expansion of the training facilities. For major investments, external donor funds are required.

### *Shortages of Clinical Faculty (I-TECH Study 2010)*

The shortage of full-time clinical faculty—referred to as “tutors” in Tanzania—is consistently identified as a critical barrier to scaling up enrollment at HTIs. Existing institutions are requested to double their intake and formerly closed training institutions have reopened to meet MMAM’s objectives. However, the number of tutors has not seen a corresponding increase. Rather, the production of new, permanent tutors is declining and the current pool of practicing tutors continues to decrease in size (MOHSW, 2008).

The HRH crisis also affects the HTIs themselves. According to the HRH strategic plan, public HTIs had the highest percentage of unfilled positions among all health facilities. In 2006, 1,711 health professionals were required to staff the 72 public HTIs, but 26% of those positions were unfilled. In comparison, the vacancy rates at dispensaries, health centers, and district hospitals were 69, 59, and 67% respectively (MOHSW, 2008).

The MOHSW enrollment study also shows significant staffing gaps with very few new full-time tutors posted to HTIs in the last two years. The staff deficit at the 56 institutions that provided self-reported data was 190 full-time faculty—an estimated gap of 45% in the overall teaching faculty at HTIs (MOHSW, 2009). Despite this gap, only 32 new full-time faculty had been posted to these 56 institutions over the past two years (MOHSW, 2009).

One of the factors contributing to the low number of new faculty posted to HTIs is the lack of clinical health care professionals choosing to enter the teaching profession. Enrollment at the three faculty training centers that provide training in teaching methodology decreased to 52% capacity in 2009, with a total of only 47 new clinical faculty currently enrolled in faculty-training programs (personal communication with training institutions, November 2009).

Assessments by I-TECH found that the shortage of clinical faculty further compounds low morale among existing faculty by increasing the workload of individuals, who are concurrently discouraged by existing salary levels and limited opportunities for promotion and further training (I-TECH, 2009). When 129 tutors at training institutions for clinical officers (COs) and clinical assistants (CAs) were asked about training opportunities they had received, respondents said that, on average, they had attended only two courses, trainings, or workshops during their entire teaching career. Most of the trainings were provided by the

MOHSW or I-TECH in the past two years. Exactly 50% of these tutors had been teaching for six to eleven years, or more (I-TECH, 2009).

### *Geographic Maldistribution of Health Care Workers (I-TECH Study 2010)*

Maldistribution of health care workers between rural and urban areas is another key contributor to the HRH crisis in Tanzania. Although the majority of the population is found in rural areas, greater numbers of the most highly skilled health care workers are found in urban areas. There are 53 physicians and 43 assistant medical officers (AMOs) per million people in urban areas, and only 17 physicians and 16 AMOs per million people in rural areas (McKinsey, 2006).

Creating more HTIs in rural areas and increasing enrollment of students from the region could increase the number of trained health care workers in rural areas. A considerable body of research from both high- and low-income countries shows that growing up in rural areas increases the likelihood of future rural practice (Rabinowitz, 1999; Rabinowitz, 2001; Dussault, 2006; de Vries, 2003; Lehmann, 2008). Other studies show that training in a rural location and exposure to rural health issues during training also increase the probability of future rural practice (Burfield, 1986; Rosenblatt, 1992). Establishing additional training institutions in rural areas, investing in expanding those already in rural areas, or increasing the amount of fieldwork for health professional students could help address maldistribution of the health care workforce. Efforts to increase rural retention and recruitment should ideally focus both on selecting appropriate candidates and providing students with sufficient opportunities to explore rural practice experiences during their training (Rabinowitz, 2000; Brooks, 2002).

### *The Nursing Cadre (I-TECH Study 2010)*

Institutionalized nursing and midwifery training in Africa started with the provision of supplementary assistance in church and mission-related health care services. Most formal nurse training programs started in the 20th century and then intensified during the colonial period when most hospitals ran nurse training programs. In the 1970s, this trend changed. Nurse training programs became associated with college and university education. This initial training created a lower level of nursing cadre, commonly referred to as “enrolled” or auxiliary nurses. Individuals with primary and middle school education were qualified for such programs. Professional nurse or registered nurse training required completion of high school and three years’ professional training, encompassing a higher professional level with more depth of theory and science (Manjanja, 2005).

All of the nursing schools assessed in this report educate the enrolled nurse cadre. The EN cadre in Tanzania is a two-year curriculum that results in a certificate. Whereas previously the training involved an in-service program that took four years, the program has been revised to take pre-service students and train them over a two-year period. Secondary students who have finished Form IV (equivalent to grade 11)<sup>11</sup> with certain marks in sciences are eligible to apply for this training. ENs can later upgrade to a diploma level registered nurse. A nurse is considered to be a skilled worker occupying the lowest position in the health care worker hierarchy. While the training of a nurse focuses more on patient care, due to the human resource crisis in the health sector, nurses find themselves doing multiple tasks, including those for which they were not trained (Meena, 2009).

Despite the incomplete data on the actual size of the nursing cadre in Tanzania, it is clear that there is a severe shortage of nurses. Data compiled by the Tanzania Nurses and Midwives Council suggests that as of July 2007, the country had a total of 20,115 nurses, out of whom 7,254 had diploma and higher levels, and 12,861 were certificate holders. The WHO Country Health System Fact Sheet 2006 for Tanzania records that the nursing density per 1,000 population was 0.37 (WHO, 2006, [www.int/whosis/en/WHO](http://www.int/whosis/en/WHO)). Training for nurses of all levels severely lags behind the needs. From 2002 to 2007, the number of nurses graduating annually increased from 910 to 4,000 for diploma holders and from 469 to 13,791 for certificate holders; yet, this increase has not bridged the resource gaps within the nursing cadre.

Given that Tanzania, like many other countries in sub-Saharan Africa, has a small and inequitably distributed health workforce, increasing the number of ENs placed in rural areas—dispensaries and health centers—represents one of the important ways the MOHSW is working to combat the geographical imbalance of health care workers. An assessment of HTIs in Tanzania found that training tends to lead toward specialization; however, general services are needed in the rural dispensaries and health centers and the

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<sup>11</sup> This correlate with Australian educational progression

EN curriculum supports those needs (Leon and Koelstad, 2010). There is a critical shortage of COs, nursing officers, ENs, and laboratory assistants in Tanzania as shown in Table 1 below. These four cadres make up almost 85% of the current adjusted deficit of health care workers in Tanzania. With 2008 enrollment numbers, Tanzania can expect to have vacancy rates of 74–90% by 2018 in these cadres. Any efforts to address the health care workforce crisis in Tanzania should consider these crucial cadres for maximum impact.

### *Zonal Training Centres/Zonal Health Resource Institutes*

All public and private HTIs (including the FBOs) in Tanzania fall under one of the Zonal Training Centre (ZTC). The ZTCs are public institutions and are part of the MOH&SW Human Resource Department. The ZTC's are located in Morogoro, Iringa, Mtwara, Arusha, Kigoma, Mwanza, Mbeya and Dodoma. The ZTC's coordinate the health trainings in the country. The ZTCs play an important role in the development of human resources in the health sector. The ZTCs are involved in a range of activities such as: facilitate the development of the curriculum and adapt it to local needs; support the development and coordination of the training institutions (both public and private); provision of training courses; support Human Resource development in the zone (career development plans, training needs assessment etc); ensure accreditation with NACTE etc.

Each ZTC coordinates various health training institutions in their specific zone, such as:

- Pre-service training, for school leavers. The training duration is between 9 month and 2 years (accredited courses).
- In- service training for those who have a job and want to upgrade themselves (accredited courses of duration between 1-2 years).
- Continuing Education (for those who have a job and attend non-accredited, short courses).
- The different ZTCs are in a different pace of development. Some are relatively new and better developed, like Mbeya and Dodoma. Others have a relatively good capacity in terms of human resources, material and organisation, because they received substantial donor support (Iringa, Arusha and Mtwara).

The ZTCs in Morogoro (Eastern Zone), Mwanza (Lake Zone) and Kigoma (Western Zone) are still requiring considerable support. These three ZTCs have received less external support over the past years (e.g. with institutional development, management systems, strategic planning, resource mobilisation, equipment). For this reason the Dutch organisation Nuffic, identified these three ZTCs for increased support during the period 2009-2011.

### *Accreditation, Coordination and Technical support*

Tanzania has different systems for accreditation of the HTIs. The accreditation is valid for a period of five years and has to be renewed again after this period. The accreditation for the universities and the HTIs is managed by different legal bodies. The Tanzania Commission for Universities (TCU) is a legal body that is mandated to accredit all (not only health) the university institutions and their programs, and to approve the regulations for the examinations. The 6 Degree Health Institutions are all accredited by the TCU.

The National Council for Technical Education (NACTE) is the legal institution that coordinates the provision of all the technical education and training in Tanzania. This includes the non-degree courses provided by the HTIs (Under NACTE category Health and Allied Sciences). The NACTE has established criteria for accreditation; (1) legal criteria (e.g. procedures, licensing, and registration) and; (2) viability criteria (human resource establishment, admission criteria, curriculum offered, student intake and output, qualification levels and training facilities and buildings) for registration.



## Appendix 6 Overview of Public and Private Health Training Institutions in Tanzania

### Degree Health Training Institutions 2008/09

SN	Degree Course	MUHAS	HKMU	KCMC	IMTU	AGHA KHAN	BUCHS	Total
1	Master of Medicine	61	-	36	-	-	15	112
2	Master of Public Health	15	-	20	-	-	-	35
3	MSc. Parasitology & Entomology	3	-	1	-	-	-	4
4	MSc. Applied Epidemiology	7	-	-	-	-	-	7
5	MSc. Epidemiology & Lab. Management	3	-	-	-	-	-	3
6	MSc. Cardiology	2	-	-	-	-	-	2
7	MSc. Neurosurgery	1	-	-	-	-	-	1
8	MSc. Urology	-	-	1	-	-	-	1
9	MSc. Clinical Research	-	-	8	-	-	-	8
10	Master of Dentistry	6	-	-	-	-	-	6
11	Master of Pharmacy	2	-	-	-	-	-	2
12	MSc. Nursing	11	-	-	-	-	-	11
13	MSc. TDC	9	-	-	-	-	-	9
14	MD	200	70	185	-	-	83	538
15	MBBS	-	-	-	151	-	-	151
16	BSc. Nursing	-	-	-	15	50	-	65
17	BSc. Physiotherapy	-	-	14	-	-	-	14
18	BSc. Health Laboratory Sciences	-	-	53	-	-	-	53
19	BSc. Prosthetics & Orthotics	-	-	6	-	-	-	6
20	DDS	13	-	-	-	-	-	13
21	BMLS Clinical Chemistry	7	-	-	-	-	-	7
22	BMLS Histology Tech	5	-	-	-	-	-	5
23	BMLS Haematology & Blood Transfusion	6	-	-	-	-	-	6
24	BMLS Microbiology & Immunology	14	-	-	-	-	-	14
25	BMLS Parasitology & Med. Entomology	5	-	-	-	-	-	5
26	BPharm	50	-	-	-	-	-	50
27	BSc. RTT	9	-	-	-	-	-	9
28	BSc EHS	34	-	-	-	-	-	34
29	BSc Midwifery	6	-	-	-	-	-	6
30	BSc Nursing Management	7	-	-	-	-	-	7
	Total							1184

Source: MOHSW, HRH Working Group, Study on Enrolment Trends in Mainland Tanzania. April 2009

# Non Degree Health Training Institutions 2008/09

SN	School / Course	2008		2007	Increase	Award	Owner
		In - Service	Pre - Service				
1	Advanced Diploma Paediatric Nursing	28				adv	gov
2	Advanced Diploma Ophthalmic Nursing	30				adv	gov
3	Morogoro Public Health Nursing	29				adv	gov
4	Mirembe Psychiatric Nursing	30				adv	gov
5	Mbeya Theatre Management.	20				adv	gov
6	School of Nurse Tutor – Muhimbili	23				adv	gov
7	Advanced Diploma In Midwifery - Muhimbili	40				adv	gov
8	Assistant Medical Officer – Bugando	45				adv	gov
9	Assistant Medical Officer – Ifakara	45				adv	gov
10	Assistant Medical Officer – KCMC	-				adv	gov
11	Assistant Medical Officer – Lugalo	30				adv	gov
12	Assistant Medical Officer – Mbeya	44				adv	gov
13	Assistant Medical Officer – Tanga	41				adv	gov
14	Assistant Medical Officer - Anaesthesia KCMC	-				adv	gov
15	Assistant Medical Officer - Dermatology KCMC	-				adv	gov
16	Assistant Medical Officer - Ophthalmology KCMC	-				adv	gov
17	Assistant Medical Officer - Radiology KCMC	-				adv	gov
18	Assistant Dental Officer – Muhimbili	15				adv	gov
19	Health Officers - Vector Control Muheza	20				adv	gov
20	Advanced Diploma in Medical Laboratory Muhimbili	33				adv	gov
21	Mbeya Dental Therapy		14	14	0	dip	gov
22	Tanga Dental Therapy		14	15	-1	dip	gov
23	Bulongwa Dental Therapy		20	20	0	dip	Pri
24	Dental Technician School – Muhimbili		5	6	-1	dip	gov
25	Pharmaceutical Technician - Bugando		30	30	0	dip	gov
26	Pharmaceutical Technician - Muhimbili		32	20	12	dip	Gov
27	Physiotherapy – KCMC		15	17	-2	dip	Gov
28	Optometry – KCMC		15	13	2	dip	Gov
29	Occupational Health – KCMC		10			dip	Gov
30	Occupational Health – Muhimbili		15				
31	Training Centre for Health Record - KCMC		20	17	3	cer	Gov
32	Kilimanjaro School of Pharmacy - KCMC		-				
33	Pharmaceutical Assistants College Kilimanjaro			25		cer	Pri
34	Kigoma Clinical Officers		40	40	0	aco	Gov
35	Masasi Clinical Officers		55	55	0	aco	Gov
36	Maswa Clinical Officers		55	55	0	aco	gov
37	Musoma Clinical Officers		55	50	5	aco	gov
38	Songea Clinical Officers		55	55	0	aco	gov
39	Sumbawanga Clinical Officers		55	55	0	aco	gov
40	Bumbuli Clinical Officers	45				dip	Fbo
41	Kibaha Clinical Officers		45	45	0	dip	gov
42	Kilosa Clinical Officers		45	43	2	dip	gov
43	Lindi Clinical Officers		50	50	0	dip	gov
44	Lugalo Clinical Officers		25	40	-15	dip	gov
45	Machame Clinical Officers		50	50	0	dip	Fbo
46	Mafinga Clinical Officers		50			dip	gov
47	Mtwara Clinical Officers		45	43	2	dip	gov
48	Mvumi Clinical Officers		45	50	-5	dip	Fbo
49	Sengerema Clinical Officers		50	50	0	dip	Fbo
50	Kolandoto Laboratory Assistant			25		cer	Fbo
51	Mvumi Laboratory Assistant		25	30	-5	cer	Fbo
52	Nkinga Laboratory Assistant		25	25	0	cer	Fbo

SN	School / Course	2008		2007	Increase	Award	Owner
		In - Service	Pre - Service				
53	Singida Laboratory Assistant		80			cer	gov
54	Agakhan School of Nursing	40	25			dip	Pri
55	Bugando School of Nursing		60	54	6	dip	gov
56	Edgar Marantha School of Nursing		40			dip	Fbo
57	Health Officers Kagemu		42	45	-3	dip	gov
58	Health Officers Mpwapwa		30	29	1	dip	gov
59	Health Officers Ngudu		39	35	4	dip	gov
60	Health Officers Tanga		30	30	0	dip	gov
61	Huruma School of Nursing	30	40	35	5	dip	Fbo
62	Hydom School of Nursing		40	44	-4	dip	Fbo
63	Ifakara School of Nursing	50	40	54	-14	dip	Fbo
64	Ilembula School of Nursing		40	45	-5	dip	Fbo
65	IMTU Diploma Nursing		71			dip	Pri
66	Kabanga School of Nursing		40	44	-4	dip	Fbo
67	KCMC School of Nursing		60	50	10	dip	gov
68	Kibosho School of Nursing	40				dip	fbo
69	Kolandoto School of Nursing		40			dip	fbo
70	Lugalo School of Nursing		40	44	-4	dip	gov
71	Masana School of Nursing		40	40	0	dip	pri
72	Mikocheni School of Nursing	40				dip	pri
73	Mirembe Psychiatry Nursing	55	45			dip	gov
74	Mtwara School of Nursing		-			dip	gov
75	Muheza School of Nursing		40	45	-5	dip	fbo
76	Muhimbili School of Nursing		59	44	15	dip	gov
77	Mwambani School Nursing	40				dip	fbo
78	Ndanda School of Nursing		40	40	0	dip	fbo
79	Ndolage School of Nursing		40	45	-5	dip	fbo
80	Newala School of Nursing		70	55	15	dip	gov
81	Nkinga School of Nursing		40	40	0	dip	fbo
82	Orthopaedic Technician KCMC		-	15		dip	gov
83	Peramiho School of Nursing		40	44	-4	dip	fbo
84	Radiographer – Bugando		15	15	0	dip	gov
85	Radiographer – Muhimbili		33	20	13	dip	gov
86	Rubya Nursing School	40	30	50	-20	dip	fbo
87	School of Hygiene Muhimbili		29	40	-11	dip	gov
88	Sengerema School of Nursing		40	45	-5	dip	fbo
89	Tanga School of Nursing	50				dip	gov
90	Phc Institute Iringa		-				gov
91	Cedha Arusha		-				gov
92	Bugando Laboratory Technician		35	37	-2	dip	gov
93	Ikonda Laboratory Technician		30	30	0	dip	pri
94	KCMC Laboratory Technician		44			dip	pri
95	Muhimbili Laboratory Technician		59	38	21	dip	gov
96	Bagamoyo General Nursing		50	54	-4	cer	gov
97	Bukumbi Nurses & Midwives		40	40	0	cer	fbo
98	Dareda Nurses & Midwives		40	44	-4	cer	fbo
99	Geita General Nursing		50	50	0	cer	gov
100	Kahama General Nursing		50			cer	gov
101	Kilimatinde Nurses & Midwives		40	44	-4	cer	fbo
102	Kiombi Nurses & Midwives		57	80	-23	cer	gov
103	Kisare Nurse & Midwives		40	54	-14	cer	pri
104	Kiuma School of Nursing		40			cer	fbo
105	Kondoa General Nursing		50	55	-5	cer	gov
106	Korogwe General Nursing		50			cer	gov

SN	School / Course	2008		2007	Increase	Award	Owner
		In - Service	Pre - Service				
107	Lugarawa Nurse & Midwives		40	40	0	cer	fbo
108	Mbozi Nurses & Midwives		50	50	0	cer	gov
109	Mbulu General Nursing		50			cer	gov
110	Mkomaindo Nurse & Midwives		50	60	-10	cer	gov
111	Murgwanza School of Nursing		30			cer	fbo
112	Mvumi Nurse & Midwives		40	45	-5	cer	fbo
114	Njombe General Nursing		50	60	-10	cer	gov
115	Same General Nursing		50	50	0	cer	gov
116	Shirati Nurses & Midwives		40	54	-14	cer	fbo
117	St. Bakhita School of Nursing		40	50	-10	cer	fbo
118	Sumve Nurses & Midwives		40	44	-4	cer	fbo
119	Tarime School of Nursing		40			cer	gov
120	Tosamaganga Nurses & Midwives		40	44	-4	cer	fbo
121	Tukuyu General Nursing		60	55	5	cer	gov
122	Mtinko School of Nursing		40				
	Total = 122 training schools. 34 schools are FBO (28%)	903	3,613				
	Out of the total students the FBO students are as divided as follows	245 (27%)	1,1811 (33%)				

Source: MOHSW, HRH Working Group, Study on Enrolment Trends in Mainland Tanzania. April 2009

- Note that the brown coloured schools will be supported by AusAID. This overview does not reflect the two other Nurse training courses provided at HKMU.
- Note that all the pink coloured school belong to CSSC members and are Faith Based Training Institutions. Since 2009, private schools have increased. FBO schools are currently 44 schools.



## Appendix 7 Overview of schools which will receive support (fully or partly) with Skills Laboratories

#	Split	Nursing School	Gvt/ Private /FBO	Region	Zone	Programs Offered	Skill Lab	Library	ITECH Assess	Jhpiego Assess
1	AIHA	Mirembe Nursing School	Gvt	Dodoma	Central	Diploma	AIHA			
2	AIHA	Mvumi Nursing School	FBO	Dodoma	Central	Cert			Y	
3	AIHA	Kondoa Nursing School	Gvt	Dodoma	Central	Cert				Y
4	AIHA	Haydom Nursing School	FBO	Manyara	Central	Diploma				
5	AIHA	Dareda School of Nursing	FBO	Manyara	Central	FBO			Y	
6	AIHA	Mbulu Nursing School	Gvt	Manyara	Central	Cert	AIHA	Pending		
7	AIHA	St. Gasper	FBO	Singida	Central	Diploma	CSSC/Nuffic			
8	AIHA	Kiomboi Nursing School	Gvt	Singida	Central	Cert	AIHA	ML-Apr 2010	Y	
9	AIHA	Kilimatinde Nursing School	FBO	Singida	Central	Cert				Y
10	AIHA	MUHAS		DSM	Eastern	BSc, Adv Dip- Education, Midwifery (Jhpiego)				Y
11	AIHA	Muhimbili	GVT	DSM	Eastern	Diploma, Cert	HANZE/NUFFIC (support to the central skills lab)			
12	AIHA	Muhimbili-School of Nurse Teacher	Gvt	DSM	Eastern			ML-Apr 2010		Y
13	AIHA	Arusha University	FBO	Arusha	Arusha	?				
14	AIHA	KCMC	FBO	Kilimanjaro	Northern	Adv Dip(opth, peds), Diploma	CSSC/Nuffic will assist the nurse training school if need be.			Y
15	AIHA	Haruma Nursing School	FBO	Kilimanjaro	Northern	Diploma				Y
16	AIHA	Kibosho Nursing School	FBO	Kilimanjaro	Northern	Diploma				Y
17	AIHA	Same Nursing School	Gvt	Kilimanjaro	Northern				Y	Y
18	AIHA	Tanga Nursing School	Gvt	Tanga	Northern	Diploma				Y

#	Split	Nursing School	Gvt/ Private /FBO	Region	Zone	Programs Offered	Skill Lab	Library	ITECH Assess	Jhpiego Assess
19	AIHA	Muheza Nursing School	FBO	Tanga	Northern	Diploma				Y
20	AIHA	Korogwe Nursing School	Gvt	Tanga	Northern				Y	Y
21	AIHA	Lugarawa Nursing School	FBO	Iringa	Iringa	Cert				
22	AIHA	Tosamaganga Nursing School		Iringa	Iringa	Cert				Y
23	AIHA	Njombe Nursing School	Gvt	Iringa	Iringa	Cert	AIHA		Y	Y
24	AIHA	Kiuma School of Nursing	FBO	Ruvuma	Southern Highlands	Cert				
25	AIHA	Advanced Theatre Management School, Mbeya	Gvt	Mbeya	Southern West	Adv Dipl				
26	AIHA	Mwambani Nursing School	Govt	Mbeya	Southern West	Diploma				
27	AIHA	Mbozi Nursing School	Gvt	Mbeya	Southern West	Cert			Y	
28	AIHA	Tukuyu Nursing School	Gvt	Mbeya	Southern West	Cert	AIHA		Y	Y
29	AIHA	St Bakhita Nursing School	FBO	Rukwa	Southern West	Cert				
30	AIHA	Kabanga Nursing School	FBO	Kigoma	Western	Diploma				
31	AIHA	Kibondo Nursing School	Gvt	Kigoma	Western	Cert	HANZE/NUFFIC			
32	AIHA	Nkinga Nursing School	FBO	Tabora	Western	Diploma				
33	AIHA	Nzega Nursing School	Gvt	Tabora	Western	Cert	HANZE/NUFFIC		y	
34	AIHA	Aga Khan	Private	DSM	Eastern	Diploma				
35	AIHA	HMKU	Private	DSM	Eastern		GHAWA may assist with additional support if needed			
36	AIHA	IMTU	Private	DSM	Eastern	Diploma				

#	Split	Nursing School	Gvt/ Private /FBO	Region	Zone	Programs Offered	Skill Lab	Library	ITECH Assess	Jhpiego Assess
37	Jhpiego	Ilembula Nursing School	FBO	Iringa	Southern Highlands	Diploma	Jhpiego			
38	Jhpiego	Peramiho	FBO	Ruvuma	Southern Highlands	Diploma	Jhpiego			Y
39	Jhpiego	Lugalo	Gvt	DSM	Eastern	Diploma	Jhpiego			
40	Jhpiego	Mikocheni Nursing School (HKMU)	Private	DSM	Eastern	Diploma	GHAWA may assist as this part of the HKMU Faculty of Nursing			
41	Jhpiego	Advanced Public Health Nursing School, Morogoro	Govt	Morogoro	Eastern	Adv Dip	HANZE/NUFFIC			
42	Jhpiego	Ifakara Nursing School	FBO	Morogoro	Eastern	Diploma	Jhpiego			
43	Jhpiego	Edgar Marantha	FBO	Morogoro	Eastern	Diploma				
44	Jhpiego	Bagamoyo Nursing School	Gvt	Pwani	Eastern		Jhpiego		Y	
45	Jhpiego	Ndolage Nursing School	FBO	Kagera	Lake	Diploma	Jhpiego			
46	Jhpiego	Rubya Nursing School	FBO	Kagera	Lake	Diploma				
47	Jhpiego	Murgwanza School of Nursing	FBO	Kagera	Lake	Cert				
48	Jhpiego	Kisare Nursing School	FBO	Mara	Lake	Cert				
49	Jhpiego	Tarime Nursing School	Gvt	Mara	Lake	Cert	Jhpiego		Y	Y
50	Jhpiego	Bugando School of Nursing	Gvt	Mwanza	Lake	Diploma	HANZE/NUFFIC and CSSC/Nuffic may assist for the Nurse Tutor Training School (add on to the skills lab if need be)			
51	Jhpiego	Sengerema Nursing School	FBO	Mwanza	Lake	Diploma				
52	Jhpiego	Bukumbi Nursing School	FBO	Mwanza	Lake	Cert	Jhpiego			Y
53	Jhpiego	Sumve Nursing School	FBO	Mwanza	Lake	Cert	Jhpiego			Y
54	Jhpiego	Geita Nursing School	Gvt	Mwanza	Lake	Cert	Jhpiego		Y	Y

#	Split	Nursing School	Gvt/ Private /FBO	Region	Zone	Programs Offered	Skill Lab	Library	ITECH Assess	Jhpiego Assess
55	Jhpiego	Bugando School of Nurse Teachers	non-Gvt	Mwanza	Lake					
56	Jhpiego	Kolandoto Nursing School	FBO	Shinyanga	Lake	Diploma	Jhpiego			
57	Jhpiego	Kahama Nursing School	Gvt	Shinyanga	Lake	Cert	HANZE/NUFFIC		Y	Y
58	Jhpiego	Shirati	FBO		Lake		Jhpiego			Y
59	Jhpiego	Newala School of Nursing	Gvt	Mtwara	Southern	Diploma	Jhpiego		Y	
60	Jhpiego	Ndanda Nursing School	FBO	Mtwara	Southern	Diploma				
61	Jhpiego	Mtwara Nursing School	Gvt	Mtwara	Southern	Diploma	Jhpiego			Y
62	Jhpiego	Mkomaindo	Gvt	Mtwara	Southern	Cert			Y	
63	Jhpiego	Nachingwea Nursing School	Gvt	Mtwara	Southern	Cert				
64	Jhpiego	MUHAS-Midwifery		DSM	Eastern	Adv Dip	Jhpiego			Y

Additional Skills Labs										
		Musoma COTC			Lake		HANZE/NUFFIC			
		Kigoma COTC			Western		HANZE/NUFFIC			
		Kilosa COTC			Eastern		HANZE/NUFFIC			



## Appendix 8 Materials List for Skills Laboratories

Materials list for skills labs in Nursing schools in Tanzania	
Item	Quantity per school
MODELS	
Advanced Childbirth simulators	2
Fetal baby, Umbilical cord and placenta for Vacuum Delivery	2
Bony Pelvic Model	2
Cloth Pelvic Model	2
Cervical Dilation Model	2
CPR Infant Manikin	2
CPR Infant Manikin Replacement Face Shields/Lungs	2
Childbirth Models with Fetus and Placenta	2
Newborn Resuscitation Mannequin with mask and ambu bag	2
Gyne model with specula	2
EQUIPMENT	
Suction Equipment	1
Foot Operated Pump	1
Vacuum Extractor	1
IUD Insertion Kit	2
Manual Vacuum Aspiration Kits	3
Sponge Forceps	5
Adult stethoscopes	5
Kit - Delivery	2
Kit – Episiotomy	2
Medical Instrument - Aneroid Sphygmomanometer	5
PERSONAL PROTECTIVE EQUIPMENT	
Eye Protection	50
Aprons (reusable)	50
Masks Neonate Size 0	2
Masks Infant Size 1	2
Boots/Foot protection	4
REFERENCE MANUALS	
Managing Complications in Childbirth and Pregnancy (WHO)	10
Basic Maternal and Newborn Care Manual (Jhpiego)	10
EmOC Pocket Guide (Jhpiego)	50
AMSTL CD (Jhpiego)	4
EmOC CD (Jhpiego)	4
Best Practices in Maternal Care - CD (Jhpiego)	4
AMSTL Toolkit (Jhpiego)	4
CTS Trainer Guide (Jhpiego)	10
CTS Reference Manual (Jhpiego)	10
CTS Participant Guide (Jhpiego)	10

Materials list for skills labs in Nursing schools in Tanzania	
Item	Quantity per school
POSTERS	
Poster: AMSTL	1
Poster: Exercise During Labor	1
Poster: Positions in Labor	1
Poster - Partograph	1

## Appendix 9 Options for Master Degrees in India and Africa

### In East Africa (South Africa still needs to be explored)

Table 1: Example of Universities in Africa offering Master of Science in Nursing					
Institution	Location	Course	Duration	Rates	Website
St John's University of Tanzania	Dodoma, Tanzania	Master in Nursing Education, Community Health, Nursing Administration and Management	Undetermined	Unavailable	<a href="http://www.sjut.ac.tz/sonu.php">http://www.sjut.ac.tz/sonu.php</a>
Kilimanjaro Christian Medical Centre (KCMC)	Moshi, Tanzania	Master in Public Health		\$ 7,000	<a href="http://www.kcmc.ac.tz/MPH.htm">www.kcmc.ac.tz/MPH.htm</a>
Mbarara University of Science and Technology	Uganda	Master of Science (Various)	Undetermined	Refer to Table 2	<a href="http://www.must.ac.ug">http://www.must.ac.ug</a>
Nairobi University	Kenya	Master of Public Health	Two years	\$ 9,000	<a href="http://www.uonbi.ac.ke/academics/degree-information/?page=Masters&amp;id=105">www.uonbi.ac.ke/academics/degree-information/?page=Masters&amp;id=105</a>
Moi University	Kenya (Eldoret)	Master of Medical Education and other Master courses	Two years		<a href="http://www.mu.ac.ke/academic/schools/sph/mphilph.html">www.mu.ac.ke/academic/schools/sph/mphilph.html</a>

Table 2: Course Cost for Mbarara University of Science and Technology to undertake a Master in Science, Nursing	
Description	Fees
Application fees	\$ 50 (Foreign Students)
Registration/ Examination fees	\$ 100 (Foreign Students) Per Annum
Library fees	\$ 100 (Foreign Students) Per Annum
Laboratory fees (science based courses)	\$ 500 (Foreign Students) Per Annum
Tuition fees	\$ 2,500 - \$4,500 (MPH) (Foreign Students) Per Annum
Examination fees	\$ 100 (Foreign Students) Per Annum
Administration fees	\$ 100 (Foreign Students) Per Annum
Book Bank fees	\$ 200 (Foreign Students) Per Annum
Medical Capitation fees	\$ 200 (Foreign Students) Per Annum
Guild/Sports fees	\$ 50 (Foreign Students) Per Annum
Field attachment for supervision	\$100 (Foreign students) Per Annum
<b>Total</b>	<b>\$ 6,000 Per Annum*</b>
*University did not specify currency type for foreign students' charges; presume this is in US dollars.	

**India has a large number of Nursing Colleges and Universities, offering Diploma through to PhD level in Nursing (Examples below).**

Institution	Affiliation	Location	Course	Duration	Rates	Website
Government College of Nursing Kottayam	Muhammad Ghandi University	Kottayam, Kerala	Master of Sc, Nursing	2 years	Unavailable	<a href="http://www.collegeofnursingkottayam.org/">http://www.collegeofnursingkottayam.org/</a>
Government College of Nursing Calicut	Calicut University	Calicut, Kerala	Master of Sc, Nursing (Child Health, Medical Surgical, Psychiatric, Obstetrics and Gynaecology )	2 years	Unavailable	<a href="http://cnc.ac.in/">http://cnc.ac.in/</a>
Saveetha University	N/A	Chennai	Master of Sc, Nursing (Child Health and Paediatrics), Master of Sc, Nursing (Obstetrics and Gynaecology)	2 years	Unavailable	<a href="http://www.saveetha.com/">http://www.saveetha.com/</a>
College of Nursing Pune	Bharati Vidyapeeth University	Pune, Maharashtra	Master of Sc, Nursing	2 years	Unavailable	<a href="http://www.bharativedyapeeth.edu/nursingpune.html">http://www.bharativedyapeeth.edu/nursingpune.html</a>
Christian Medical College and Hospital	Baba Farid University of Health Sciences	Ludhiana, Punjab	Master of Sc, Nursing	2 years	Unavailable	<a href="http://www.cmcludhiana.in/">http://www.cmcludhiana.in/</a>
National Institute of Mental Health and Neuro Sciences - Bangalore (NIMHANS)	N/A	Bangalore, Karnataka	Master of Science, Nursing (Psychiatric)	2 years	US\$ 15,500*	<a href="http://www.nimhans.kar.nic.in/">http://www.nimhans.kar.nic.in/</a>
National Institute of Mental Health and Neuro Sciences - Bangalore	N/A	Bangalore, Karnataka	Doctor of Philosophy - Nursing (Psychiatric)	3 -5 years	US\$ 30,500*	<a href="http://www.nimhans.kar.nic.in/">http://www.nimhans.kar.nic.in/</a>
College of Nursing Pune	Bharati Vidyapeeth University	Pune, Maharashtra	Doctor of Philosophy - Nursing	Undetermined	Unavailable	<a href="http://www.bharativedyapeeth.edu/nursingpune.html">http://www.bharativedyapeeth.edu/nursingpune.html</a>
Sri Ramachandra University	N/A	Chennai	Doctor of Philosophy - Nursing	Undetermined	Unavailable	<a href="http://www.sriramachandra.edu.in/">http://www.sriramachandra.edu.in/</a>
The Indira Gandhi National Open University- Delhi	N/A	Chennai	Doctor of Philosophy - Nursing	Undetermined Available via distance education	Unavailable	<a href="http://www.ignou.ac.in/">http://www.ignou.ac.in/</a>

\* Full course cost including tuition & registration for foreign nationals extracted from 2011 -2012 NIMHANS prospectus



## Appendix 10 Itinerary in period 12<sup>th</sup> - 19<sup>th</sup> April 2011

### Program for GHAWA assignment in Tanzania

Time morning	Activity	Time afternoon/evening	Activity
Saturday 12 <sup>th</sup> March (Nuffic travel)	Travel Patricia Schwerzel	Arrival in Dar at 23.30	To Hotel Swiss Garden
Sunday 13 <sup>th</sup> March (1)	Desk study of GHAWA documents. Making appointments	14.00 19.00	Meeting with NICHE TZA 001/CSSC Coordinator Salvator Hokororo. Prepare the visits in Dar Meeting- dinner with AusAID team in Kempinsky hotel.
Monday 14 <sup>th</sup> March (2)	8.00-10.00 Preparation and confirmation of the GHAWA meetings. 10.00-12.30 Meeting with TGHSP team on HRH program in Tanzania (Southern Zone).	13.00-15.00 15.00 15.25 19.00-22.00	Meeting with Touch Foundation on HRH program in Tanzania (Lake Zone) Confirming appointments Arrival Mark Jones  Dinner-meeting with Mark Jones
Tuesday 15 <sup>th</sup> March (3)	8.30-14.30 Morning visit to HKMU Faculty of Nursing	15.00 16.30-17.30	Meeting with DANIDA rep in MOH office on Public Private Partnership. Assessment of first findings.
Wednesday 16 <sup>th</sup> March (4)	7.30-9.00: Breakfast meeting AusAID team 9.00-10.30: MOH Meeting Ass. Director HR Training Department. 10.30-11.00 MOH Meeting with Director HR Training Department 11.00-14.00: Visit to Muhimbili Advance School of Midwifery	14.30  Evening	Meeting with IntraHealth on HRH support in Tanzania.  Proposal discussion with Mark Jones
Thursday 17 <sup>th</sup> March (5)	9.00-11.00: Meeting with Jhpiego team on Skills lab support 11.00-14.30: Proposal discussion	15.00-17.00 18.00-22.00	CIDA meeting Meeting with HKMU Principal
Friday 18 <sup>th</sup> March (6)	8.00: Visit MOH Planning Department 9.00: CDC and AIHA meeting on HRH support Tanzania. 11.00: I-TECH support on HRH support in Tanzania	13.00 14.30 16.00 Evening	Hanze/Nuffic meeting on HRH and skills lab support. Meeting with Morogoro ZHTI Principal on GHAWA support to two ZHTI schools. Draft LFA and Budget. Joint dinner
Saturday 19 <sup>th</sup> March (2 hrs)	9.00-11.00: Preparation of work to be done in Australia.		
Sunday 20 <sup>st</sup> -Sunday 27 <sup>th</sup> March ( 2 days)	Preparation of internal draft document and GHAWA team preparing contributions.		
Tuesday 22 <sup>nd</sup> March (2 hrs)	8.00-10.00: Visit MOH Global Fund/HSS Coordinator and McKinsey team on GF support		
Tuesday 29 <sup>th</sup> March	Preparation of second version internal draft.		
Tuesday 19 <sup>th</sup> April	Preparation of final version document		

## Appendix 11 Resource Persons

Resource persons	
Name	Position
Mr. Chris Armstrong	CIDA First Secretary
Ms. Eliaremis S. Ayo	MOH&SW Ass Director Nurses Training in Department of HR Development
Ms. Alice Christensen	AIHA, Technical Advisor Nurse Training
Ms. Susan Clark	I-TECH, Health Systems Director
Dr. Jarl Chabot	ETC Crystal and AusAID Technical Advisor
Dr. Peter Duncan-Jones	AusAID Africa, First Secretary Development Cooperation
Mr. Vernand Dementria	MOH&SW, Coordinator Nurse Training Schools
Ms. Tory Ervin	Touch Foundation, Head of External Affairs, Tanzania
Ms. Natalie Hendler	JHPIEGO, Technical Advisor Skills Laboratories
Mr. Salvator Hokororo	ETC Crystal Program Manager NICHE TZA 001 Project
Prof. Mark Jones	GHAWA Program Director
Dr. Adeline Kimambo	CSSC, Director
Ms. Claudia Kowald	TGHSP Technical Advisor
Ms. Rose Laisser	CIDA, Health Advisor
Mr. Steven Lanjouw	DANIDA, PPP Advisor
Dr Marion Lieser	CSSC, Technical Advisor
Ms. Jennifer Macias	IntraHealth Country Director
Ms. Harriet Makulukulu	Hanze University Groningen, Nuffic Project Coordinator
Dr. Gilles de Margerie	CIDA, Senior Health and HIV/AIDS Advisor
Ms. Suzzane Mcqueen	CDC, Senior Technical Advisor Health Systems Strengthening
Prof. Pauline Mella	HKMU, Dean and Principal Faculty of Nursing
Prof. Keto Elitabu Mshigeni	HKMU, Vice Chancellor
Dr. Gilbert R. Mliga	MOH&SW, Director Human Resources Development
Ms. Stella Mpanda	I-TECH Pre-Service Program Manager
Ms. Veronica Mpazi	MOH&SW, Principal and Zonal Coordinator Eastern Zone
Ms. Jenni Ng	GHAWA Program Manager
Ms. Tracey Newbury	AusAID, Development Program Advisor
Mr. Richard Nkwera	TGHSP, Technical Advisor
Mr. Angus L C O'Shea	McKinsey Senior Advisor in MOH&SW
Dr. Rik Peeperkorn	Royal Netherlands Embassy, First Secretary Health and HIV/AIDS
Prof. Paschalis Rugarabamu	HKMU, Deputy Vice Chancellor for Academic Affairs
Dr. Hiltrude Tembe	MOH&SW, Global Fund Coordinator
Mr. Lee Wells	Touch Foundation, Executive Director
Ms. Elisabeth Mika Zakariah	HKMU Deputy Principal Faculty of Nursing

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## Appendix 13 Map of Tanzania

