

**Government of Malawi**



**Ministry of Health**

# **Malawi Health Sector Employee Census**

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December 2007

## Foreword

**- Under Construction by the MoH-**

## Acknowledgements

Centre for Social Research would like to extend its deep appreciation to the Ministry of Health (MoH) for the trust and confidence that the Ministry had in the Centre to conduct the HRH Census, an assignment out of which a lot of experience and understanding of the health sector in Malawi has been gained. The Centre would also like to thank all the stakeholders who supported the 2007 Human Resources Health (HRH) Census in various ways. Firstly, the Centre wishes to extend its gratitude to the Global Fund for HIV/AIDS, TB and Malaria for providing the financial support through the Health Systems Strengthening Grant. Secondly, the Centre would also like to thank individuals in the Ministry of Health who provided useful comments on the process, the draft instruments and on the approach of the census.

Thirdly, the Centre would like to thank Zonal Supervisors, District Health Officers (DHOs), Assistant District Statisticians, CHAM, Owners of private health facilities, NGOs and companies that own clinics for participating in the census and for assisting our Research Assistants (R/As) in many ways. The Centre would also like to thank Senior Management in the Ministry of Health for supervising field data collection and providing comments and suggestions at various stages of the census. In particular, the Centre would like to acknowledge the role played by the Census Coordinating Team (CCT) which was headed by the Department of Planning & Policy Development in the Ministry during the entire period of the census (names of the CCT members are in Annex 9 at the end of this report). The Centre also acknowledges the support that it received from the Central Monitoring, Evaluation and Research Division (CMERD) in the Ministry of Health right from the inception stage until the very end including conducting the data verification and mop-up activities so as to ensure that all staff in the sector have been captured in the census.

Lastly, Centre for Social Research would like to thank all Field Supervisors, R/As and Drivers for a job well done. Names of the Supervisors and Research Assistants are contained in Annex 9 at the end of this report.

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**Centre for Social Research**

## Executive Summary

The Ministry of Health, through the Centre for Social Research conducted a census of Human Resources in the Health (HRH) sector in November/December 2007. The key objectives of the census included obtaining primary HRH data and information in the form of a "snap-shot picture" of current availability, numbers, profiles, skills-mix, and distribution of trained health workers, including management and support staff, employed in registered public and private sector health facilities across all districts of Malawi. The HRH Data Census will help calculate and refine accurate and reliable HRH baseline data to facilitate effective sector-wide HRH planning, implementation and monitoring, within the scope of the HRH M&E Framework. The primary objective is to ensure that targeted and adequate policies, strategies and programmes are developed, implemented and monitored in order to address the current inadequacy and mal-distribution of HRH in the country.

Data collection took place in all the districts of the country between 20<sup>th</sup> November and 15<sup>th</sup> December, 2007 using 107 Research Assistants and 23 Supervisors and staff were interviewed in person. Health workers who were not interviewed during this period were followed up by the Ministry of Health in March and May 2008 utilising the services of Research Assistants provided by CSR, after the staff lists generated from the census were verified by DHOs. The results of the census presented in this report are therefore resulting from the data collection exercises that took place in November/December 2007 and March and May 2008. All the data from the census were entered in Epi info using computer facilities at the Centre for Social Research but analysis was done in SPSS. The analysis plan was guided by an indicator matrix that was provided by the MoHP at the start of the census.

### Results of the Census

- There were 1,030 health facilities and institutions in Malawi and out of these, 850 (83%) were providing primary care to patients, 98 (10%) were providing secondary care, 6 (1%) were providing tertiary care while 76 (7%) were administration, health project offices and research and training institutions;
- Out of the 1030 health facilities and institutions in the country, government was operating 516 (or 50%), CHAM was operating 166 (or 16%), NGOs were operating 70 (7%), the private sector was operating 209 (20%) and the rest were being operated by statutory organisations (n=23, 2%) and companies (n=46, 5%).
- Of the 516 facilities and institutions that were being operated by government, 437 (85%) were primary care facilities, 51 (10%) were secondary care facilities, 5 (1%) were tertiary care facilities while 23 (5%) were administration, project offices and research and training institutions. In CHAM (n=166), the distribution was 69%, 25%, 1% and 5%, respectively for primary, secondary, tertiary and administration/training institutions.
- The results of the Census also revealed that the facility population ratio is 1:13,824; and is 1:8863 in the North, 1:16,047 Central Region and 1:16,047 Southern Region. In urban areas, one facility serves an average of 9,870 people while in rural areas the average is 14,749 people per facility. At district level, the population per facility is highest in Phalombe (23,942 people per facility) and lowest in Likoma at 2,774 people per facility.

- Using information extracted from the recent Government Gazette, only 39% of the facilities that were identified in the census were registered by the Medical Council of Malawi (MCM); 54% of the government facilities, 23% of the CHAM facilities, 49% of the NGO facilities, 9% of the private sector facilities, and 39% of the facilities run by companies and 57% of the facilities run by statutory institutions;
- Overall, a total of 33,766 health workers were enumerated in the country with HSAs constituting 30% of all the staff working in the sector, Nurses (13%), Physicians (1%), Clinical officers (2%), Medical Assistants (2%), Technicians (4%), management and support staff making up 29% of the staff in the sector.
- A total of 248 Physicians were enumerated in the census and of these, 182 (73%) were males while 66 (27%) were females. Sixty percent (60%) of the Physicians were of Malawi origin whereas 40% were foreigners.
- Overall, there were 4450 Nurses in the country (3052 Nurse/midwives or 69% of all the Nurses in the country; 982 Nurse Technicians or 22%; and 416 Auxiliary Nurses or 9%), 698 Clinical Officers, 711 Medical Assistants and 1314 technicians belonging to various fields;
- Of the 33,766 staff in the health sector, 21754 (64%) were employed by the government, 8399 (25%) were employed by CHAM, 1104 (3%) are employed by NGOs, 1705 (5%) were employed by the private sector while the rest (2%) were employed by companies and statutory organisations.
- The results of the census also show that qualified health service providers constituted 71% of all the staff in the sector and there is no major difference across regions or Zones but among urban, semi-urban and rural areas. In urban areas, health service providers constituted 59% of all the staff in the sector, 69% in semi-urban areas and only 77% of the staff in rural areas. At district level, the proportions range from 61% in Lilongwe to 85% in Kasungu;
- The results of the census also show that at national level, there are 2.67 nurses for every clinician (doctor, clinical officer and medical assistant); 2.6 nurses per clinician in the NZ, 2.4 nurses per clinician in the CEZ, 2.6 nurses per clinician in the CWZ, 2.7 nurses per clinician in the SEZ and 3.1 nurses per clinician in the SEZ. In urban areas, the nurse to clinician ratio is 3.0 to 1, 3.5 to 1 in semi-urban areas and 2.0 to 1 in rural areas.
- The results of the census also show a Physician Population ratio of 1:53176 at national level; Nurse population ratio of 1:2964; Clinician Population ratio of 1:7959 and HAS population ratio of 1:1313 using the 2007 mid-year projected population estimates ([www.nso.malawi.net](http://www.nso.malawi.net)).

## Recommendations

On the basis of the general distribution of health facilities and staff in the country, we recommend the following:

- to institute measures to address staffing gaps observed in the zones and districts. Zones and districts that have poor coverage have been highlighted throughout the report. One way would be to address the reasons why some staff leave Government facilities for other service providers and these are highlighted in chapter 8 of the report.

- to consider deploying more staff to rural areas with additional personal incentives (such as financial allowances) alongside improvements in social amenities and housing conditions
- as rural areas (and facilities) are underserved by the highly qualified staff, it would be good to consider introducing a rural area visitation programme by professionals (especially Physicians and Clinical Officers) during which the officers would visit rural facilities at least once every two weeks to treat and examine patients who would otherwise have not had the chance of accessing such level of care and the Ministry could consider motivating such staff through additional allowances for such undertakings
- for future censuses to be successful without major hassles, it would be good to plan for the census in advance and to consider lobbying the professional registration bodies (the Medical Council of Malawi; Medicines, Poisons and Pharmacy Board and the Nurses and Midwives Council of Malawi) to be part of the Census Coordinating Team to ensure 100% compliance.

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## List of acronyms used

| Acronym | Name in Full                                 |
|---------|----------------------------------------------|
| BLM     | Banja La Mtsogolo                            |
| CCT     | Census Coordination Team                     |
| CEZ     | Central East Zone                            |
| CHAM    | Christian Health Association of Malawi       |
| CHSU    | Community Health Sciences Unit               |
| CO      | Clinical Officer                             |
| CSR     | Centre for Social Research                   |
| CWZ     | Central West Zone                            |
| DAPP    | Develop Aid from People to People            |
| DfID    | Department for International Development     |
| DHO     | District Health Office(r)                    |
| EHP     | Essential Health Package                     |
| ESCOM   | Electricity Supply Commission of Malawi      |
| HA      | Health Assistant                             |
| HMIS    | Health Management Information System         |
| HRH     | Human Resources for Health                   |
| HSA     | Health Surveillance Assistant                |
| HSS     | Health Systems Strengthening                 |
| HTC     | HIV Testing and Counseling                   |
| HTI     | Health Training Institution                  |
| JCE     | Junior Certificate of Education              |
| KCN     | Kamuzu College of Nursing                    |
| M&E     | Monitoring and Evaluation                    |
| MA      | Medical Assistant                            |
| MACRO   | Malawi AIDS Counseling Resource Organization |
| MoH     | Ministry of Health                           |
| MoLG    | Ministry of Local Government                 |
| MSCE    | Malawi School Certificate of Education       |
| N/MW    | Nurse/Midwife                                |
| NAC     | National AIDS Commission                     |
| NGO     | Non-Governmental Organisation                |
| NHS     | National Health Service                      |
| NZ      | North Zone                                   |
| PoW     | Programme of Work                            |
| PSI     | Population Services International            |
| PSLC    | Primary School Leaving Certificate           |
| R/A     | Research Assistant                           |
| SEZ     | South East Zone                              |
| SWAp    | Sector Wide Approach                         |
| SWZ     | South West Zone                              |
| UN      | United Nations                               |
| UNC     | University of North Carolina                 |

## 1.0 BACKGROUND

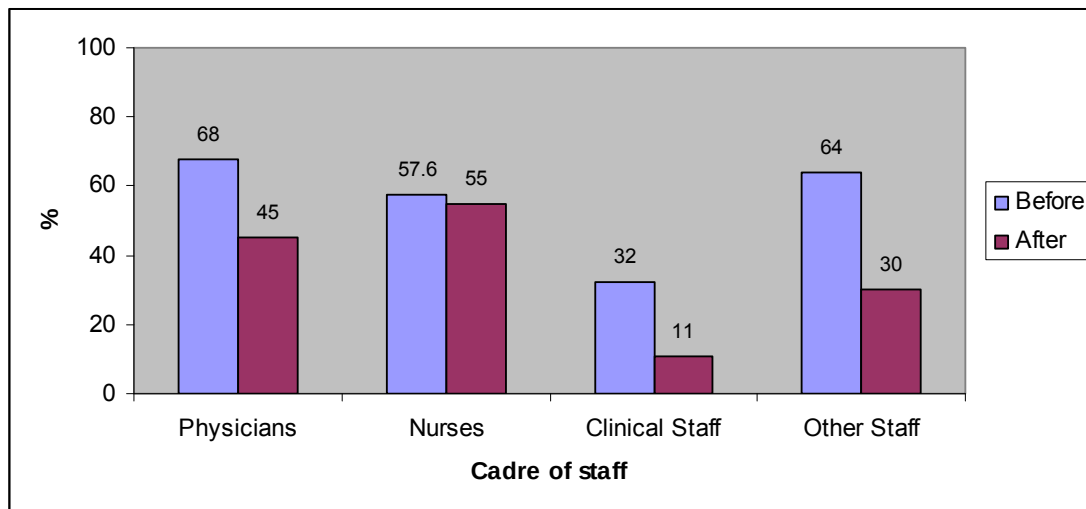
### 1.1 Addressing the HRH crisis in the Health Sector in Malawi

Malawi is one of the countries in the developing world that has been heavily hit by the critical shortage of human resource in the health sector required to effectively provide an essential health package. According to the Ministry of Health, in 2002 there were 19,919 health workers in Malawi including support staff. The majority of the health workers, estimated at 69%, were within the public sector (Hornby and Oczan, 2003). This analysis however did not include the vacancy levels within the health sector particularly in the MoH. In 2003 even though the Ministry of Health had 21,337 established posts of health workers, only 16,397 posts were filled thus representing 77% of the established positions in the sector. However, the proportion of vacancies varied from one cadre to another and the situation was quite critical if the vacancy rates among specialists were taken into account. For example in 2004 among the Surgeons, Pathologists, Medical Specialists and Obstetricians the vacancy rates were 98%, 100%, 95% and 92%, respectively (MoH 2004). Among the nurses and clinical officers within the public sector vacancy rates of up to 64% and 27%, respectively, were reported in 2004. A number of factors can help to explain the existence of high vacancy rates within the health sector in Malawi and these include the fact that a good proportion of health workers have resigned and either joined the private sector or health NGOs or have migrated to overseas countries for better remuneration. The results of a GTZ-supported human resource capacity needs assessment in the health sector have also showed that death constitutes one of the factors contributing to shortage of HR in the health sector. For example in 2005 alone 491 health workers left the Ministry and 44% of these (n=214) were due to deaths (GTZ 2007).

The Government of Malawi acknowledges the human resource crisis prevailing in the health sector and this explains why there are attempts to improve retention and management of health workers. Currently, Malawi with support from donors is implementing a 6 year Emergency Human Resource Plan (EHRP) as one way of addressing the HRH crisis. In order to address the low remuneration package within Malawi's health sector and consequently improve health workers' retention, the Government of Malawi implemented a 52% salary top-up in April 2005 targeting 11 priority cadres. In addition to salary top-ups, the Ministry of Health has also approved the payment of both monetary and non-monetary incentive packages with the aim of attracting health workers to rural and hard to reach and underserved areas, which have been jointly identified by CHAM and MoH. Donors are also supporting the incentives package for tutors at Health Training Institutions (HTIs) since 2004. The Global Fund has also provided funds through HIV/AIDS, Malaria and Health Systems Strengthening (HSS) Grants for expansion of HTIs, payment of salary top-ups and salaries for UN volunteer Medical doctors to work in district hospitals and 5 supervisors for the ART programme. The HSS Grant focuses on strengthening of health systems and includes recruitment and payment of salary top-ups for HSAs, Nurses, Medical Doctors, Clinical Officers and Nurse Tutors. These initiatives are geared towards significantly reducing vacancy levels among various cadres of health workers and this has particularly been noted after salary top-ups financed with assistance from the DFID and the Global Fund as can be seen in Figure 1 below:



Figure 1: Vacancy levels among different cadres in MoH before and after salary top-ups



It is evident from Figure 1 above that the introduction of a wide array of initiatives including salary top ups led to a significant decrease in the vacancy levels for some cadres in the Ministry of Health. While the vacancy rate was 68% for doctors in 2005; by January 2007 this had gone down to 45%. For clinical staff the vacancy rate went down from 32% in 2005 to 11% in 2007. There has also been a major drop in vacancy rates among other professional staff from 64% to 30% in January 2005. In addition to these initiatives, it should also be noted that there have been other attempts by the MoH to address HRH crisis and these include the intensification of the recruitment efforts. For example in the years 2005 and 2006, all KCN graduates were recruited by the MoH unlike in the past and health workers who retired or left the Ministry for other reasons but were willing and prepared to rejoin the Ministry were re-engaged. A total of 465 health workers were re-engaged following the recruitment drive.

The MoH acknowledges the existence of the HRH crisis and the available vacancy levels but the challenge remains that of establishing exactly how many health workers are working currently in the health sector in Malawi . Therefore it was decided to conduct a fresh HRH census. Against this background a 'Headcount' exercise was undertaken in August 2005, covering MoH facility based staff to gather data on the actual numbers and distribution of staff deployed (established staff in post) as well as vacancy trends and levels. The main aim of this headcount exercise was to verify and reconcile staff records with the new government payroll system. This was an important first step in institutionalizing the regular collation and management of accurate and up-to-date staffing information for subsequent use in key HRH planning and decision-making. The results of the exercise were also meant to be used as the basis for monitoring the impact on recruitment and staff retention of the 52% salary top-up incentives that were introduced in April 2005. Unfortunately the headcount encountered fundamental implementation failures as not all staff in the health sector were enumerated. A repeat of the census was therefore essential to address the challenges that were encountered in the 2005 census.

## 1.2 Major Providers of Health Services in Malawi

Major providers of health care in Malawi are the Ministry of Health, the Christian Hospitals Association of Malawi (CHAM; an umbrella organization for Christian-owned health facilities) and the Ministry of Local Government (MoLG), which own 64%, 26% and 5% of all health facilities, respectively. Other significant but small providers of health care services include: Banja La Mtsogolo (BLM): a not-for-profit Non-

Governmental Organization [NGO] which specializes in the delivery of sexual and reproductive health services. The organization operates clinics in cities and semi-urban areas throughout Malawi and had 31 facilities at the end of 2006; Malawi AIDS Counseling Resource Organization (MACRO): an NGO specializing in HIV counselling and testing which currently operates in the urban areas; large private companies (mostly provide clinical outpatient services exclusively to employees and their families); and stand-alone general practitioners, many of whom are operating in urban areas.

### **1.3 Rationale for Conducting the HRH Census**

The Government of Malawi developed and has been implementing a Sector Wide Approach (SWAp) joint Programme of Work (PoW) for 2004-2010 for the health sector which encompasses a 6-year Emergency Pre-service Training Plan and the Essential Health Package (EHP) aimed at ensuring the delivery of health services addresses the needs of all Malawians. The SWAp programme of work incorporates a comprehensive development and implementation programme for HRH policy objectives and system requirements to address the critical HRH situation in Malawi. Within the context of ongoing health systems strengthening initiatives as described earlier, the MoH aims to collate and maintain accurate high-quality, and timely HRH data to inform the development, decision-making, implementation and monitoring of comprehensive sector-wide HRH policies, plans and practices.

It is against this background that a 'Headcount' exercise was undertaken in August 2005, covering MoH facility based staff to gather data on the actual numbers and distribution of staff deployed (established staff in post) as well as vacancy trends and levels. The main aim of this headcount exercise was to verify and reconcile staff records with the new government payroll system. This was an important first step in institutionalizing the regular collation and management of accurate and up-to-date staffing information for subsequent use in key HRH planning and decision-making. The results of the exercise were also meant to be used as the basis for monitoring the impact on recruitment and staff retention of the 52% salary top-up incentives that were introduced in April 2005. Unfortunately the headcount encountered fundamental implementation failures as not all staff in the health sector were enumerated. A repeat of the census was therefore essential to address the challenges that were encountered in the 2005 census.

### **1.4 Main Objective of the Census**

The main objective of the HRH Census was to obtain primary HRH data on current availability, numbers, profiles, skills-mix, and distribution of trained health workers, including management and support staff, employed in registered public and private sector health facilities in Malawi

## **2.0 METHODOLOGY AND APPROACH**

### **2.1 Terms of Reference for the Census**

Detailed ToRs for the HRH census are appended at the end of this report in Annex 1. Following award of the contract to the consultants, discussions on the ToRs were held in mid November during which it was agreed that due to constraints of time, the consultants should only concentrate on the headcount exercise, data management and compilation and drafting of the census report. The Ministry would handle the other aspects of the ToR including linking the database with the existing systems.

MoH was responsible for providing relevant documents, creating awareness about the census among all the stakeholders through the mass media (both electronic and print media), officially informing all stakeholders with letters of introduction and supervision of data collection for quality assurance. MoH also provided an initial list of facilities in Malawi which showed that there were 1 660 facilities including both public and private facilities. During the census this list was used to cross-check with DHOs the actual existence of the facilities and their locations. It was observed that the list which was provided by the Ministry included health posts which are essentially community out-posts of other health centres and rural hospitals and a good number of private facilities had been closed after the owners relocated to other districts or had died. In all the Districts, the list which came from the Ministry differed from the list of facilities which are actually operating in the Districts.

The Centre for Social Research (CSR) was responsible for the implementation of the census including recruitment, training and deployment of data collectors, field supervision, management of data and compilation of the census report. The Centre for Social Research also drafted the study tools, which were shared with the Ministry of Health and other stakeholders. Following a 2-week period of reflection and internal discussion, the HRH Census Coordination Team (CCT) established by the Ministry of Health produced final drafts of the tools, which were slightly modified after a pilot survey to suit the local conditions for data collection.

### **2.2 Recruitment and training of data collectors**

Names of potential Research Assistants (R/As) were obtained from the pool of R/As which is maintained at the Centre for Social Research and a total of 153 potential Research Assistants were short-listed for written interviews which took place on October 30 2007. After the interviews, 107 R/As and 23 Supervisors were offered a place to take part in the training, which started on November 12 2007. Members of the HRH CCT assisted in facilitating and supervising the training. The training focused on interviewing techniques, briefing on health care delivery in the country, review of study tools and field logistics. The training lasted 3 days after which a pilot survey was conducted in 8 health facilities in Zomba on November 15. The results of the pilot survey were discussed on November 15 and 16 after which the tools were finalized. The major observations/lessons from the pilot included: differences in the number of digits on the employment numbers for health workers engaged in the public service; lack of advance notice to the facilities; and, the resistance that some private and public facilities were giving to the field team(s). This information was communicated to the Ministry of Health for its action and/or advice, which was received before the teams were deployed to their respective districts.

### 2.3 Deployment of field teams for data collection

Twenty-three (23) field teams were dispatched on November 20, 2007 and each team had a Field Supervisor, 4-5 R/As and a Driver. Each team was assigned to collect data from 1-2 districts. The teams started collecting data from the remote facilities before going to the district hospitals and other major facilities because of the onset of rains. As stated above, the MoH provided a list of facilities in each district and these were in turn given to all the 23 Field Supervisors. When data collection was finished in the first districts, all the teams were regrouped and sent to collect data in the urban areas of Blantyre, Lilongwe and Mzuzu. Data collection took longer (25 days) than the planned 15 days because health workers had no knowledge of the census as the Ministry's communications to the DHOs and the private sector were not received in good time. This caused unnecessary delays because the R/As were at times sent back until the in-charges of facilities and owners of private clinics received official communication from the DHOs or from their respective head offices.

### 2.4 Data collection Process

At each facility, the first exercise was to contact the person in-charge of the facility so as to introduce the team and purpose of the visit. The Supervisors led in this exercise and they showed introductory letters from the MoHP and identity cards from the Centre for Social Research. After authorization was granted, the persons in-charge of the facilities were asked to provide lists of their staff and where these exist, they were provided useful guides as to determining which member of staff has been interviewed or not. The persons in-charge also provided facility level information through answering questions contained in a facility level tool (see annex \_\_\_ at the end of this report). As the interviews with the persons in-charge were going on (administered by the Supervisors or his/her delegate), the rest of the R/As were also interviewing other staff who were available (see Annex for a copy of the questionnaire). At most facilities, interviews were taking place in specially assigned rooms because the in-charge of the facilities did not want R/As to disturb clinic sessions that were going on. As this was a head count exercise, staff were supposed to be interviewed in person. However, because some staff had left for holidays, the persons in-charge of the facilities provided skeletal information concerning these members of staff pending further follow up by the MoHP.

### 2.5 Supervision of data collection

Supervision of data collection was done at four levels, namely:

1. Each field team had a Supervisor and these provided the day-to-day supervision of data collection and they stayed with the R/As throughout the entire period of the census in addition to interviewing some of the health workers on their own. The Field Supervisors (together with the DHOs and/or District Assistant Statisticians) were also responsible for contacting the facilities in advance before visiting them;
2. Five CSR Researchers provided both physical and 'telephone' supervision to all the field teams on a daily basis. They were also responsible for transporting the completed questionnaires to Zomba for data entry.

3. HR and HMIS (Assistant Statistician) officers from each DHO accompanied the teams in their respective districts to the field and they also provided very useful information with regard to location of the facilities and contact details.
4. The Census Coordination Team (CCT) and some Directors in the Ministry visited some of the teams in the field for the purpose of quality assurance and they had the opportunity of discussing with the field teams their logistical and technical concerns.

## 2.6 Development of database

A data entry screen was developed in Epi Info by the Data Manager at the Centre for Social Research. At the time when negotiations for the census were being held, this database was supposed to be sent to the districts where data entry would have taken place. However, this was changed by CSR because some districts reported that they had no computer facilities and that it would not have been feasible to arrange for computers and enter the data within the time-frame as was requested by the Ministry.

## 2.7 Management of data from the Census

Questionnaires from interviews with staff in each facility were put in separate envelopes to ensure that they did not get mixed up. Envelopes were only sealed upon confirmation that all the staff at the respective facilities had been interviewed and no envelope was transported to Zomba if interviews had not been exhausted. This was a departure from the original plan where CSR was required to enter all the data whilst still being in the districts so as to allow for data verification by the DHOs and the change in the plan was necessitated by reasons explained in section 2.5 above.

## 2.8 Challenges and lessons for future censuses

- Need for advance notice: At the beginning of the census, some DHOs, CHAM facilities and owners of most private facilities and NGOs had not received in advance any communication about the census and staff were therefore not readily available/willing to be interviewed. As a result, data collection took longer at most facilities than would have been the case if notices were sent out in advance. This was particularly a big challenge with regard to the coverage of HSAs in the remote areas where there are no telephone facilities;
- Not all DHOs, Facility In-Charges, CHAM facility managers and owners of private facilities were willing to release staffing returns so that CSR Enumerators could verify with their list after or before conducting the interviews at the facilities;
- Some staff (both in CHAM and Government facilities) refused to be interviewed citing irrelevance of similar exercises that were conducted in the past. For such staff, the only information that was collected were their names and position;.
- In a number of instances, staff had been out of their duty stations attending training or workshops or were on holiday and field teams have had to revisit such staff when they returned to their stations. This increased the travel and

time-costs. In some very few cases, staff on holiday were followed up to the place where they had gone for holiday and were interviewed there;

- Problems were encountered with regard to transport arrangements to Likoma because the few boats that could be hired in Nkhatabay/Nkhotakota were all occupied. It was gathered that the DHO boat in Nkhatabay was also not functional at the time of the census. This affected the census in that ad hoc arrangements were made for Likoma where the field team had to board a ship (Illala) meant for the general public, which takes one week before coming back to Nkhatabay. Dropping the team in Likoma would therefore have meant staying on Likoma for 1 week even after all the staff had been interviewed. As such, about 5-6 staff on Likoma were missed out because they did not come to the dock for the interviews on the date that the R/As had arranged with the DHO;
- The supervision from the MoH HRH CCT had been very useful to the data collection process; firstly because it provided a chance for the teams to ask questions on technical issues that could have been difficult without their presence; secondly, the presence of MoH staff was a morale booster to the field teams especially upon receiving positive feedback and encouragement on their observations; thirdly, in some facilities and to some staff, this was proof that the MoH had ordered the census.

## **2.9 Coverage of the Census and the Mop-up Exercise**

The census was a mandatory exercise. As such all facilities and staff working in the health sector were under obligation to participate in the census. However, for reasons beyond the control of the Centre for Social Research, this was not the case because some institutions initially refused to take part in the census.

In January 2008, a draft database was circulated to all the zones, central hospitals and districts so as to allow the DHOs and Zone Managers to verify the completeness and accuracy of the census. A follow-up workshop was organised in mid-February involving DHOs, District Human Resource Officers, the Census Coordinating Team (CCT) from the Ministry and Centre for Social Research. A major recommendation from workshop was that a mop-up exercise was needed to interview those staff who were on holiday or were completely missed and to visit facilities that refused to participate in November/December or were completely missed out. The mop-up exercise was organised by the Ministry of Health but data collection was conducted by some of the R/As who took part in the main census under the direct supervision of the CCT members and District Assistant Statisticians. The first mop-up exercise took place in March 2008 and after noting that some facilities were still missing and that some staff (notably Physicians) had still refused data collection, the MoHP physically went around to collect the data from such institutions and individuals in May 2008.

## **2.10 Data Analysis**

Analysis of the data was guided by a matrix of indicators that was provided by the MoHP at the start of the census (see Annex 8 at the end of this report). All the data was analysed in SPSS. For purposes of regional disaggregation of findings from the census, Malawi was divided into three administrative regions namely North, Centre and South as used in official government documents. The Northern Region has six districts namely Chitipa, Karonga, Rumphi, Mzimba, Nkhatabay and Likoma where as the Central Region has nine districts namely Kasungu, Nkhotakota, Ntchisi, Mchinji, Salima, Dowa, Lilongwe, Dedza and Ntcheu. In the Southern Region are 13 districts namely Balaka, Mangochi, Machinga, Zomba, Phalombe, Mulanje, Thyolo, Blantyre, Mwanza, Chiradzulu, Chikwawa, Nsanje and Neno.

Secondly, the MoHP also asked CSR to disaggregate findings of the census by Health Sector Zones. The health sector in Malawi is divided into five zones namely: Northern Zone (comprising all the districts in the Northern Region); Central East Zone (comprising Kasungu, Nkhonkhotakota, Ntchisi, Salima and Dowa), Central West (comprising Lilongwe, Mchinji, Dedza and Ntcheu), South East Zone (comprising Balaka, Mangochi, Machinga, Zomba, Phalombe and Mulanje); and, South West Zone (comprising Thyolo, Blantyre, Chiradzulu, Mwanza, Neno, Chikwawa and Nsanje).

Thirdly, the MoH also asked CSR to disaggregate the findings of the census according to location of the facilities i.e. urban, semi-urban or rural. Urban areas were defined to include all areas designated as within the boundaries of the cities of Blantyre, Zomba, Lilongwe and Mzuzu, the four major cities in Malawi. Semi-urban areas included all the district headquarters popularly known as the 'Boma' and major trading centres in the country while rural areas include all areas outside of the urban and semi-urban centres.

### 3.0 HEALTH FACILITIES AND INSTITUTIONS IN MALAWI

This Chapter presents findings on the number of health facilities and health institutions in Malawi and the results are disaggregated by zones, regions, level of care, facility ownership status and districts. A full list of facilities that were identified in the Census is provided in Annex 4 at the end of this report.

#### 3.1 Number of facilities disaggregated by region, zone, location and level of care

The census identified a total of 1030 facilities in the country distributed across the three regions and five health zones as shown in Table 1 below. There were 954 health facilities that deal with patients directly, of which 850 provide primary level care (representing 83% of all facilities in the country), 98 (10%) provide secondary level of care while 6 (1%) provide tertiary care. In the category called 'other' includes ministry headquarters, zone offices, health projects offices and research and training institutions which add up to 76.

Table 1: Number of facilities in Malawi disaggregated by Region, Zone, Location and Level of Care

|                 |                   | Level of Care Provided by the Facility |           |          |           | Total       |
|-----------------|-------------------|----------------------------------------|-----------|----------|-----------|-------------|
|                 |                   | Primary                                | Secondary | Tertiary | Others    |             |
| <b>Total</b>    | <b>Count</b>      | <b>850</b>                             | <b>98</b> | <b>6</b> | <b>76</b> | <b>1030</b> |
|                 | % within Malawi   | 82.5                                   | 9.5       | 0.6      | 7.4       | 100         |
| <b>Region</b>   |                   |                                        |           |          |           |             |
| North           | Count             | 151                                    | 22        | 2        | 6         | 181         |
|                 | % within region   | 83.4                                   | 12.2      | 1.1      | 3.3       | 100         |
| Centre          | Count             | 307                                    | 39        | 1        | 39        | 386         |
|                 | % within region   | 79.5                                   | 10.1      | 0.3      | 10.1      | 100         |
| South           | Count             | 392                                    | 37        | 3        | 31        | 463         |
|                 | % within region   | 84.7                                   | 8.0       | 0.6      | 6.7       | 100         |
| <b>Zone</b>     |                   |                                        |           |          |           |             |
| North           | Count             | 151                                    | 22        | 2        | 6         | 181         |
|                 | % within Zone     | 83.4                                   | 12.2      | 1.1      | 3.3       | 100         |
| Central East    | Count             | 110                                    | 17        | 0        | 5         | 132         |
|                 | % within Zone     | 83.3                                   | 12.9      | 0.0      | 3.8       | 100         |
| Central West    | Count             | 197                                    | 22        | 1        | 34        | 254         |
|                 | % within Zone     | 77.6                                   | 8.7       | 0.4      | 13.4      | 100         |
| South East      | Count             | 173                                    | 17        | 2        | 10        | 202         |
|                 | % within Zone     | 85.6                                   | 8.4       | 1.0      | 5.0       | 100         |
| South West      | Count             | 219                                    | 20        | 1        | 21        | 261         |
|                 | % within Zone     | 83.9                                   | 7.7       | 0.4      | 8.0       | 100         |
| <b>Location</b> |                   |                                        |           |          |           |             |
| Urban           | Count             | 169                                    | 6         | 6        | 53        | 234         |
|                 | % within Location | 72.2                                   | 2.6       | 2.6      | 22.6      | 100         |
| Rural           | Count             | 646                                    | 63        | 0        | 15        | 724         |
|                 | % within Location | 89.2                                   | 8.7       | 0.0      | 2.1       | 100         |
| Semi-Urban      | Count             | 35                                     | 29        | 0        | 8         | 72          |
|                 | % within Location | 48.6                                   | 40.3      | 0.0      | 11.1      | 100         |



Out of the 850 facilities that provide primary care, 151 are in the Northern Region (NR), 307 are in the Central Region (CR) while 219 are in the Southern Region (SR). In the Northern Region, there were 181 facilities in total and out of these, 151 (83%) were providing primary care, 22 (12%) were providing secondary level care 2 (1%) were providing tertiary care while 6 (3%) were administrative, project offices and training institutions. The distribution of health facilities in the CR and SR is as shown in Table 1 above.

The findings of the census also show that 646 of the 950 primary level facilities in the country (68%) are in rural areas whereas 169 (18%) are in urban areas and 35 (4%) are in semi-urban areas mainly at the district centres and major trading centres. There were 234 facilities in the urban areas of the country and out of these, 72% (n=169) were primary level facilities, 3% (n=3) were secondary level facilities, 3% (n=6) were tertiary level facilities while 23% were administration, project offices, training and research institutions. In rural areas, the distribution was 89% (n=646), 9% (n=63), 0% and 2% (n=15) for primary, secondary, tertiary and administration facilities, respectively.

### **3.2 Number of facilities disaggregated by region, zone, location and ownership**

Out of the 1030 facilities that were identified in the census, government operates 516 (50%), CHAM operates 166 (16%) NGOs were running 70 (7%) while the private sector was operating 209 (20%) of the facilities and statutory organisations and companies were operating 23 (2%) and 46 (3%) of the facilities, respectively. The distribution of the facilities according to ownership status across regions, zones and location is as shown in Table 2 below. The South Eastern and South Western Zones have high numbers of facilities run by companies mainly because of tea estates in Thyolo and Mulanje and the sugar plantations in Chikwawa.

Facilities owned by statutory organisations include clinics, research sites and training institutions run by university colleges and large government companies such as ESCOM and the Water Boards. The NGO category includes clinics that are run by Banja La Mtsogolo (BLM), Life Line Ministries, Project HOPE and Development Aid from People to People (DAPP).

Table 2: Distribution of health facilities in Malawi disaggregated by Ownership, Region, Location and Zone

|                 |                   | Ownership of Facility |      |      |         |           |         | Total |
|-----------------|-------------------|-----------------------|------|------|---------|-----------|---------|-------|
|                 |                   | Government            | CHAM | NGO  | Private | Statutory | Company |       |
| Total           | Count             | 516                   | 166  | 70   | 209     | 23        | 46      | 1030  |
|                 | % within Malawi   | 50.1                  | 16.1 | 6.8  | 20.3    | 2.2       | 4.5     | 100   |
| <b>Region</b>   |                   |                       |      |      |         |           |         |       |
| North           | Count             | 103                   | 29   | 8    | 31      | 4         | 6       | 181   |
|                 | % within region   | 56.9                  | 16.0 | 4.4  | 17.1    | 2.2       | 3.3     | 100   |
| Centre          | Count             | 192                   | 61   | 31   | 90      | 5         | 7       | 386   |
|                 | % within region   | 49.7                  | 15.8 | 8.0  | 23.3    | 1.3       | 1.8     | 100   |
| South           | Count             | 221                   | 76   | 31   | 88      | 14        | 33      | 463   |
|                 | % within region   | 47.7                  | 16.4 | 6.7  | 19.0    | 3.0       | 7.1     | 100   |
| <b>Zone</b>     |                   |                       |      |      |         |           |         |       |
| North           | Count             | 103                   | 29   | 8    | 31      | 4         | 6       | 181   |
|                 | % within Zone     | 56.9                  | 16.0 | 4.4  | 17.1    | 2.2       | 3.3     | 100   |
| Central East    | Count             | 78                    | 19   | 12   | 19      | 0         | 4       | 132   |
|                 | % within Zone     | 59.1                  | 14.4 | 9.1  | 14.4    | 0.0       | 3.0     | 100   |
| Central West    | Count             | 114                   | 42   | 19   | 71      | 5         | 3       | 254   |
|                 | % within Zone     | 44.9                  | 16.5 | 7.5  | 28.0    | 2.0       | 1.2     | 100   |
| South East      | Count             | 103                   | 51   | 10   | 23      | 2         | 13      | 202   |
|                 | % within Zone     | 51.0                  | 25.2 | 5.0  | 11.4    | 1.0       | 6.4     | 100   |
| South West      | Count             | 118                   | 25   | 21   | 65      | 12        | 20      | 261   |
|                 | % within Zone     | 45.2                  | 9.6  | 8.0  | 24.9    | 4.6       | 7.7     | 100   |
| <b>Location</b> |                   |                       |      |      |         |           |         |       |
| Urban           | Count             | 60                    | 9    | 31   | 109     | 17        | 8       | 234   |
|                 | % within Location | 25.6                  | 3.8  | 13.2 | 46.6    | 7.3       | 3.4     | 100   |
| Rural           | Count             | 426                   | 149  | 17   | 91      | 6         | 35      | 724   |
|                 | % within Location | 58.8                  | 20.6 | 2.3  | 12.6    | 0.8       | 4.8     | 100   |
| Semi-Urban      | Count             | 30                    | 8    | 22   | 9       | 0         | 3       | 72    |
|                 | % within Location | 41.7                  | 11.1 | 30.6 | 12.5    | 0.0       | 4.2     | 100   |

### 3.3 Distribution of facilities according to level of care and ownership

Out of the 516 facilities that were being run by the Government, 85% (n=437) provide primary care, 51 (10%) provide secondary care, 5 (1%) provide tertiary care while 23 (5%) were administration, project offices and training institutions (Table 3 below). Among the 166 facilities that were being operated by CHAM, 115 (69%) were primary level facilities, 41 (25%) were secondary level facilities, 1 (1%) was tertiary level facility while 9 (5%) were administration and training institutions. In the NGO sector, 29 of the 70 facilities (41%) were either HTC sites or were providing home-based care services to patients.

Table 3: Distribution of health facilities by Level of Care and Ownership

|           |                    | Ownership of Facility |      |      |         |           |         | Total |
|-----------|--------------------|-----------------------|------|------|---------|-----------|---------|-------|
|           |                    | Government            | CHAM | NGO  | Private | Statutory | Company |       |
| Primary   | Count              | 437                   | 115  | 40   | 196     | 16        | 46      | 850   |
|           | % within Ownership | 84.7                  | 69.3 | 57.1 | 93.8    | 69.6      | 100.0   | 82.5  |
| Secondary | Count              | 51                    | 41   | 1    | 5       | 0         | 0       | 98    |
|           | % within Ownership | 9.9                   | 24.7 | 1.4  | 2.4     | 0.0       | 0.0     | 9.5   |
| Tertiary  | Count              | 5                     | 1    | 0    | 0       | 0         | 0       | 6     |
|           | % within Ownership | 1.0                   | 0.6  | 0.0  | 0.0     | 0.0       | 0.0     | 0.6   |
| Others    | Count              | 23                    | 9    | 29   | 8       | 7         | 0       | 76    |
|           | % within Ownership | 4.5                   | 5.4  | 41.4 | 3.8     | 30.4      | 0.0     | 7.4   |
| Total     | Count              | 516                   | 166  | 70   | 209     | 23        | 46      | 1030  |
|           | %                  | 100                   | 100  | 100  | 100     | 100       | 100     | 100   |

### 3.4 Distribution of health facilities disaggregated by ownership status and District

Table 4 below shows the distribution of the 1030 facilities in the country ownership status and district. As can be seen from the Table, there are some variations in the numbers of facilities across the districts. Lilongwe and Blantyre districts have the highest numbers of health facilities (154 and 113 facilities, respectively) followed by Mzimba (89 facilities) and this is largely due to the high numbers of private clinics in the urban areas of these districts and their vastness both in terms of population and/or geographical size.

Of the 10 health facilities that were identified in Chitipa, government runs 7 (70%) of them where as CHAM and the private sector were running 2 (20%) and 1 (10%) of the facilities. In absolute terms, CHAM had more facilities in Mangochi (n=16), Lilongwe (n=14), Ntcheu (n=14) and Zomba (n=14) districts compared to the other districts. Details are presented in Table 4 below.

Table 4: Distribution of health facilities and health institutions in Malawi disaggregated by District and Ownership Status

| District   |       | Ownership of Facility |      |      |         |           |         | N    |
|------------|-------|-----------------------|------|------|---------|-----------|---------|------|
|            |       | Government            | CHAM | NGO  | Private | Statutory | Company |      |
| Total      | Count | 516                   | 166  | 70   | 209     | 23        | 46      | 1030 |
|            | %     | 50.1                  | 16.1 | 6.8  | 20.3    | 2.2       | 4.5     | 100  |
| Chitipa    | Count | 7                     | 2    | 0    | 1       | 0         | 0       | 10   |
|            | %     | 70.0                  | 20.0 | 0.0  | 10.0    | 0.0       | 0.0     | 100  |
| Karonga    | Count | 14                    | 3    | 2    | 3       | 1         | 0       | 23   |
|            | %     | 60.9                  | 13.0 | 8.7  | 13.0    | 4.3       | 0.0     | 100  |
| Rumphi     | Count | 13                    | 7    | 1    | 7       | 0         | 1       | 29   |
|            | %     | 44.8                  | 24.1 | 3.4  | 24.1    | 0.0       | 3.4     | 100  |
| Mzimba     | Count | 50                    | 13   | 4    | 17      | 3         | 2       | 89   |
|            | %     | 56.2                  | 14.6 | 4.5  | 19.1    | 3.4       | 2.2     | 100  |
| Nkhatabay  | Count | 18                    | 1    | 1    | 3       | 0         | 3       | 26   |
|            | %     | 69.2                  | 3.8  | 3.8  | 11.5    | 0.0       | 11.5    | 100  |
| Likoma     | Count | 1                     | 3    | 0    | 0       | 0         | 0       | 4    |
|            | %     | 25.0                  | 75.0 | 0.0  | 0.0     | 0.0       | 0.0     | 100  |
| Kasungu    | Count | 23                    | 3    | 1    | 3       | 0         | 2       | 32   |
|            | %     | 71.9                  | 9.4  | 3.1  | 9.4     | 0.0       | 6.3     | 100  |
| Nkhotakota | Count | 14                    | 6    | 4    | 2       | 0         | 2       | 28   |
|            | %     | 50.0                  | 21.4 | 14.3 | 7.1     | 0.0       | 7.1     | 100  |
| Ntchisi    | Count | 11                    | 1    | 0    | 1       | 0         | 0       | 13   |
|            | %     | 84.6                  | 7.7  | 0.0  | 7.7     | 0.0       | 0.0     | 100  |
| Mchinji    | Count | 12                    | 3    | 2    | 7       | 0         | 0       | 24   |
|            | %     | 50.0                  | 12.5 | 8.3  | 29.2    | 0.0       | 0.0     | 100  |
| Salima     | Count | 13                    | 4    | 3    | 6       | 0         | 0       | 26   |
|            | %     | 50.0                  | 15.4 | 11.5 | 23.1    | 0.0       | 0.0     | 100  |
| Dowa       | Count | 17                    | 5    | 4    | 7       | 0         | 0       | 33   |
|            | %     | 51.5                  | 15.2 | 12.1 | 21.2    | 0.0       | 0.0     | 100  |
| Lilongwe   | Count | 58                    | 14   | 15   | 59      | 5         | 3       | 154  |
|            | %     | 37.7                  | 9.1  | 9.7  | 38.3    | 3.2       | 1.9     | 100  |
| Dedza      | Count | 21                    | 11   | 1    | 3       | 0         | 0       | 36   |
|            | %     | 58.3                  | 30.6 | 2.8  | 8.3     | 0.0       | 0.0     | 100  |
| Ntcheu     | Count | 23                    | 14   | 1    | 2       | 0         | 0       | 40   |
|            | %     | 57.5                  | 35.0 | 2.5  | 5.0     | 0.0       | 0.0     | 100  |
| Balaka     | Count | 9                     | 5    | 2    | 2       | 0         | 0       | 18   |
|            | %     | 50.0                  | 27.8 | 11.1 | 11.1    | 0.0       | 0.0     | 100  |
| Mangochi   | Count | 23                    | 16   | 2    | 6       | 1         | 1       | 49   |
|            | %     | 46.9                  | 32.7 | 4.1  | 12.2    | 2.0       | 2.0     | 100  |
| Machinga   | Count | 17                    | 6    | 1    | 6       | 0         | 0       | 30   |
|            | %     | 56.7                  | 20.0 | 3.3  | 20.0    | 0.0       | 0.0     | 100  |
| Zomba      | Count | 27                    | 14   | 3    | 3       | 1         | 1       | 49   |
|            | %     | 55.1                  | 28.6 | 6.1  | 6.1     | 2.0       | 2.0     | 100  |
| Phalombe   | Count | 10                    | 5    | 0    | 0       | 0         | 0       | 15   |
|            | %     | 66.7                  | 33.3 | 0.0  | 0.0     | 0.0       | 0.0     | 100  |
| Mulanje    | Count | 17                    | 5    | 2    | 6       | 0         | 11      | 41   |
|            | %     | 41.5                  | 12.2 | 4.9  | 14.6    | 0.0       | 26.8    | 100  |
| Thyolo     | Count | 31                    | 7    | 2    | 5       | 0         | 9       | 54   |
|            | %     | 57.4                  | 13.0 | 3.7  | 9.3     | 0.0       | 16.7    | 100  |
| Blantyre   | Count | 28                    | 5    | 13   | 50      | 11        | 6       | 113  |
|            | %     | 24.8                  | 4.4  | 11.5 | 44.2    | 9.7       | 5.3     | 100  |
| Mwanza     | Count | 4                     | 0    | 2    | 1       | 0         | 0       | 7    |

|            |       |      |      |      |      |     |      |     |
|------------|-------|------|------|------|------|-----|------|-----|
|            | %     | 57.1 | 0.0  | 28.6 | 14.3 | 0.0 | 0.0  | 100 |
| Chiradzulu | Count | 13   | 3    | 2    | 3    | 0   | 0    | 21  |
|            | %     | 61.9 | 14.3 | 9.5  | 14.3 | 0.0 | 0.0  | 100 |
| Chikwawa   | Count | 22   | 3    | 1    | 2    | 1   | 5    | 34  |
|            | %     | 64.7 | 8.8  | 2.9  | 5.9  | 2.9 | 14.7 | 100 |
| Nsanje     | Count | 12   | 5    | 0    | 2    | 0   | 0    | 19  |
|            | %     | 63.2 | 26.3 | 0.0  | 10.5 | 0.0 | 0.0  | 100 |
| Neno       | Count | 8    | 2    | 1    | 2    | 0   | 0    | 13  |
|            | %     | 61.5 | 15.4 | 7.7  | 15.4 | 0.0 | 0.0  | 100 |

### 3.5 Distribution of health facilities disaggregated by district and level of care

Table 5 below shows the distribution of health facilities and other health institutions according to level of care they provide by district. Generally, there are some variations across the districts with some districts such as Mwanza, Machinga and Ntchisi having only one secondary level facility. Lilongwe has a total of 154 facilities out of which 33 (21% are administration or health project offices whereas 110 (71%) are primary care facilities.

Table 5: Distribution of health facilities and health institutions in Malawi disaggregated by level of care and district

|            |                   | Level of Care Provided by Facility |           |          |        | Total |
|------------|-------------------|------------------------------------|-----------|----------|--------|-------|
| District   |                   | Primary                            | Secondary | Tertiary | Others |       |
| Malawi     | Count             | 850                                | 98        | 6        | 76     | 1030  |
|            | %                 | 82.5                               | 9.5       | 0.6      | 7.4    | 100   |
| Chitipa    | Count             | 8                                  | 2         | 0        | 0      | 10    |
|            | % within district | 80.0                               | 20.0      | 0.0      | 0.0    | 100   |
| Karonga    | Count             | 17                                 | 5         | 0        | 1      | 23    |
|            | % within district | 73.9                               | 21.7      | 0.0      | 4.3    | 100   |
| Rumphi     | Count             | 24                                 | 5         | 0        | 0      | 29    |
|            | % within district | 82.8                               | 17.2      | 0.0      | 0.0    | 100   |
| Mzimba     | Count             | 75                                 | 7         | 2        | 5      | 89    |
|            | % within district | 84.3                               | 7.9       | 2.2      | 5.6    | 100   |
| Nkhatabay  | Count             | 24                                 | 2         | 0        | 0      | 26    |
|            | % within district | 92.3                               | 7.7       | 0.0      | 0.0    | 100   |
| Likoma     | Count             | 3                                  | 1         | 0        | 0      | 4     |
|            | % within district | 75.0                               | 25.0      | 0.0      | 0.0    | 100   |
| Kasungu    | Count             | 27                                 | 5         | 0        | 0      | 32    |
|            | % within district | 84.4                               | 15.6      | 0.0      | 0.0    | 100   |
| Nkhotakota | Count             | 23                                 | 3         | 0        | 2      | 28    |
|            | % within district | 82.1                               | 10.7      | 0.0      | 7.1    | 100   |
| Ntchisi    | Count             | 12                                 | 1         | 0        | 0      | 13    |
|            | % within district | 92.3                               | 7.7       | 0.0      | 0.0    | 100   |
| Mchinji    | Count             | 18                                 | 5         | 0        | 1      | 24    |
|            | % within district | 75.0                               | 20.8      | 0.0      | 4.2    | 100   |
| Salima     | Count             | 22                                 | 2         | 0        | 2      | 26    |
|            | % within district | 84.6                               | 7.7       | 0.0      | 7.7    | 100   |
| Dowa       | Count             | 26                                 | 6         | 0        | 1      | 33    |
|            | % within district | 78.8                               | 18.2      | 0.0      | 3.0    | 100   |
| Lilongwe   | Count             | 110                                | 10        | 1        | 33     | 154   |
|            | % within district | 71.4                               | 6.5       | 0.6      | 21.4   | 100   |
| Dedza      | Count             | 32                                 | 4         | 0        | 0      | 36    |
|            | % within district | 88.9                               | 11.1      | 0.0      | 0.0    | 100   |
| Ntcheu     | Count             | 37                                 | 3         | 0        | 0      | 40    |
|            | % within district | 92.5                               | 7.5       | 0.0      | 0.0    | 100   |
| Balaka     | Count             | 14                                 | 3         | 0        | 1      | 18    |
|            | % within district | 77.8                               | 16.7      | 0.0      | 5.6    | 100   |
| Mangochi   | Count             | 42                                 | 7         | 0        | 0      | 49    |
|            | % within district | 85.7                               | 14.3      | 0.0      | 0.0    | 100   |
| Machinga   | Count             | 29                                 | 1         | 0        | 0      | 30    |
|            | % within district | 96.7                               | 3.3       | 0.0      | 0.0    | 100   |
| Zomba      | Count             | 40                                 | 2         | 2        | 5      | 49    |
|            | % within district | 81.6                               | 4.1       | 4.1      | 10.2   | 100   |
| Phalombe   | Count             | 11                                 | 2         | 0        | 2      | 15    |
|            | % within district | 73.3                               | 13.3      | 0.0      | 13.3   | 100   |
| Mulanje    | Count             | 37                                 | 2         | 0        | 2      | 41    |
|            | % within district | 90.2                               | 4.9       | 0.0      | 4.9    | 100   |
| Thyolo     | Count             | 48                                 | 5         | 0        | 1      | 54    |
|            | % within district | 88.9                               | 9.3       | 0.0      | 1.9    | 100   |
| Blantyre   | Count             | 94                                 | 3         | 1        | 15     | 113   |
|            | % within district | 83.2                               | 2.7       | 0.9      | 13.3   | 100   |
| Mwanza     | Count             | 6                                  | 1         | 0        | 0      | 7     |

|            |                   |      |      |     |      |     |
|------------|-------------------|------|------|-----|------|-----|
| Chiradzulu | % within district | 85.7 | 14.3 | 0.0 | 0.0  | 100 |
|            | Count             | 15   | 3    | 0   | 3    | 21  |
| Chikwawa   | % within district | 71.4 | 14.3 | 0.0 | 14.3 | 100 |
|            | Count             | 31   | 3    | 0   | 0    | 34  |
| Nsanje     | % within district | 91.2 | 8.8  | 0.0 | 0.0  | 100 |
|            | Count             | 15   | 3    | 0   | 1    | 19  |
| Neno       | % within district | 78.9 | 15.8 | 0.0 | 5.3  | 100 |
|            | Count             | 10   | 2    | 0   | 1    | 13  |
|            | % within district | 76.9 | 15.4 | 0.0 | 7.7  | 100 |

### 3.6 Population per facility

Using the projected 2007 mid-year population estimates for Malawi (see: [www.nso.malawi.net](http://www.nso.malawi.net)) and the 954 health facilities that provide direct care to patients in the country (hospitals, health centres and clinics), each facility serves an average of 13,824 people and the ratio of population to facility is highest in the Central Region (16,047 people per facility on average) followed by the Southern Region at 14,047 people per facility on average. In rural and semi-urban areas, one facility serves an average of 14,749 people compared to 9,870 people per facility in the urban areas (Table 6). Rural and semi-urban estimates treated as one because the population estimates which were used do not show the distinction. At district level, Phalombe has the highest population per facility at 23,942 people per facility followed by Kasungu at 20,316 people per facility.

Table 6: Estimates of population per health facility disaggregated by Region, Zone and Districts

|                  | 2007 Mid-year population | Health facilities | Population per facility |
|------------------|--------------------------|-------------------|-------------------------|
| Malawi           | 13187632                 | 954               | 13824                   |
| <b>Regions</b>   |                          |                   |                         |
| North            | 1550966                  | 175               | 8863                    |
| Centre           | 5568238                  | 347               | 16047                   |
| South            | 6068428                  | 432               | 14047                   |
| <b>Location</b>  |                          |                   |                         |
| Urban            | 1786434                  | 181               | 9870                    |
| Rural            | 11401198                 | 773               | 14749                   |
| <b>Zones</b>     |                          |                   |                         |
| North            | 1550966                  | 175               | 8863                    |
| Central East     | 2037299                  | 127               | 16042                   |
| Central West     | 3530939                  | 220               | 16050                   |
| South East       | 3135134                  | 192               | 16329                   |
| South West       | 2933294                  | 240               | 12222                   |
| <b>Districts</b> |                          |                   |                         |
| Chitipa          | 168880                   | 10                | 16888                   |
| Karonga          | 250775                   | 22                | 11399                   |
| Rumphi           | 156616                   | 29                | 5401                    |
| Mzimba           | 764518                   | 84                | 9101                    |
| Nkhatabay        | 199083                   | 26                | 7657                    |
| Likoma           | 11094                    | 4                 | 2774                    |
| Kasungu          | 650103                   | 32                | 20316                   |
| Nkhotakota       | 301604                   | 26                | 11600                   |
| Ntchisi          | 231165                   | 13                | 17782                   |
| Mchinji          | 440162                   | 23                | 19137                   |
| Salima           | 342979                   | 24                | 14291                   |
| Dowa             | 511448                   | 32                | 15983                   |
| Lilongwe         | 1951278                  | 121               | 16126                   |
| Dedza            | 646292                   | 36                | 17953                   |
| Ntcheu           | 493207                   | 40                | 12330                   |
| Balaka           | 324896                   | 17                | 19112                   |
| Mangochi         | 778338                   | 49                | 15884                   |
| Machinga         | 440492                   | 30                | 14683                   |
| Zomba            | 723020                   | 44                | 16432                   |
| Phalombe         | 311250                   | 13                | 23942                   |
| Mulanje          | 557138                   | 39                | 14286                   |
| Thyolo           | 592630                   | 53                | 11182                   |
| Blantyre         | 1158047                  | 98                | 11817                   |
| Mwanza & Neno    | 179019                   | 19                | 9422                    |
| Chiradzulu       | 299738                   | 18                | 16652                   |
| Chikwawa         | 463888                   | 34                | 13644                   |
| Nsanje           | 239972                   | 18                | 13332                   |



### **3.7 Status of Statutory Registration of the Health facilities**

#### **3.7.1 Status of registration by Regions, Zones and Districts**

All health facilities (clinics, health centres, hospitals and health training and research institutions) are required to register with the government of Malawi through the Medical Council of Malawi (MCM) for them to practice in the country and the registration is supposed to be renewed annually. District Health Officers (DHOs) are responsible for registering all government health centres, clinics and hospitals that are in their jurisdiction whereas Central Hospitals and CHAM and the private sector are supposed to register directly with the MCM without going through DHOs. The 2007 list of registered facilities and health professionals was released in the November 2007 issue of the Malawi Government Gazette (2,955 Vol. XLIV No. 48) under the Medical Practitioners and Dentists ACT (Cap 36:01) from page 183 to page 216. During the analysis of the census data, it was decided to compare the list of facilities that was derived from the census with the official list of facilities registered by the MCM. The results of the analysis are presented in Table 8 below.

Only 39% of the facilities were registered, 41% of the facilities in the Northern Region, 40% of the facilities in the Central Region and 38% of the facilities in the Southern Region (Table 7). Only a quarter of the facilities in the urban areas were registered compared to 65% in semi-urban areas and 41% in rural areas. Across the districts, Nsanje followed by Mwanza had the highest proportions of registered facilities (71% and 63%, respectively) whereas none of the four facilities in Likoma were registered. In the rest of the districts, the proportion of registered facilities ranged from 13% in Phalombe to 55% in Dowa district.

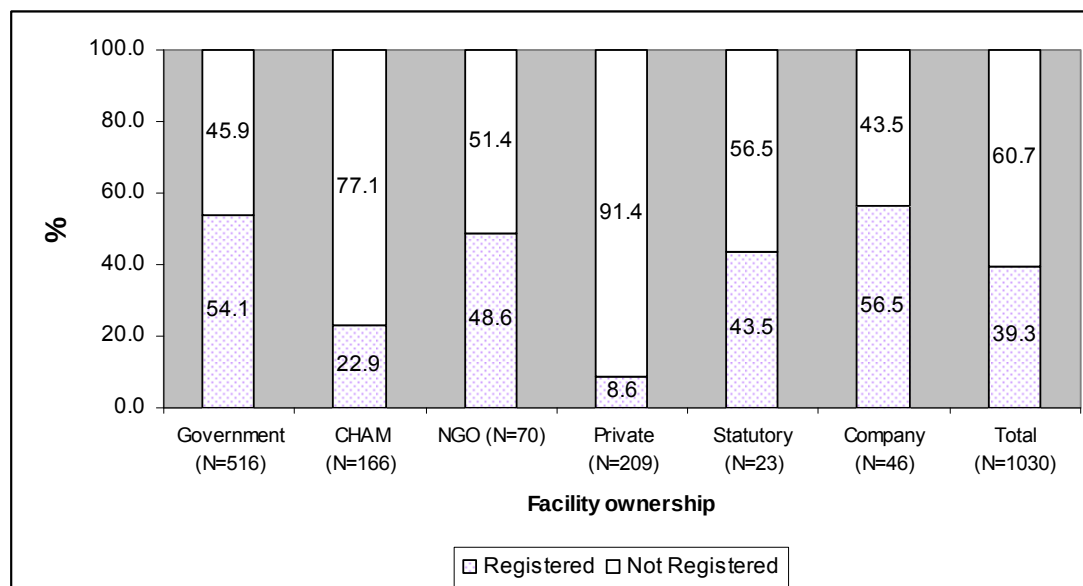
Table 7: Status of statutory registration among health facilities at the time of the census

|                  | Total Facilities | Is Facility Registered? |     | % Registered |
|------------------|------------------|-------------------------|-----|--------------|
|                  |                  | No                      | Yes |              |
| Total            | 1030             | 625                     | 405 | 39.3         |
| <b>Regions</b>   |                  |                         |     |              |
| North            | 181              | 106                     | 75  | 41.4         |
| Centre           | 386              | 231                     | 155 | 40.2         |
| South            | 463              | 288                     | 175 | 37.8         |
| <b>Location</b>  |                  |                         |     |              |
| Urban            | 234              | 175                     | 59  | 25.2         |
| Rural            | 724              | 425                     | 299 | 41.3         |
| Semi-Urban       | 72               | 25                      | 47  | 65.3         |
| <b>Zones</b>     |                  |                         |     |              |
| North            | 181              | 106                     | 75  | 41.4         |
| Central East     | 132              | 70                      | 62  | 47.0         |
| Central West     | 254              | 161                     | 93  | 36.6         |
| South East       | 202              | 129                     | 73  | 36.1         |
| South West       | 261              | 159                     | 102 | 39.1         |
| <b>Districts</b> |                  |                         |     |              |
| Chitipa          | 10               | 5                       | 5   | 50.0         |
| Karonga          | 23               | 11                      | 12  | 52.2         |
| Rumphi           | 29               | 19                      | 10  | 34.5         |
| Mzimba           | 89               | 54                      | 35  | 39.3         |
| Nkhatabay        | 26               | 13                      | 13  | 50.0         |
| Likoma           | 4                | 4                       | 0   | 0.0          |
| Kasungu          | 32               | 18                      | 14  | 43.8         |
| Nkhotakota       | 28               | 13                      | 15  | 53.6         |
| Ntchisi          | 13               | 8                       | 5   | 38.5         |
| Mchinji          | 24               | 11                      | 13  | 54.2         |
| Salima           | 26               | 16                      | 10  | 38.5         |
| Dowa             | 33               | 15                      | 18  | 54.5         |
| Lilongwe         | 154              | 110                     | 44  | 28.6         |
| Dedza            | 36               | 21                      | 15  | 41.7         |
| Ntcheu           | 40               | 19                      | 21  | 52.5         |
| Balaka           | 18               | 11                      | 7   | 38.9         |
| Mangochi         | 49               | 32                      | 17  | 34.7         |
| Machinga         | 30               | 19                      | 11  | 36.7         |
| Zomba            | 49               | 28                      | 21  | 42.9         |
| Phalombe         | 15               | 13                      | 2   | 13.3         |
| Mulanje          | 41               | 26                      | 15  | 36.6         |
| Thyolo           | 54               | 40                      | 14  | 25.9         |
| Blantyre         | 113              | 72                      | 41  | 36.3         |
| Mwanza           | 7                | 2                       | 5   | 71.4         |
| Chiradzulu       | 21               | 13                      | 8   | 38.1         |
| Chikwawa         | 34               | 18                      | 16  | 47.1         |
| Nsanje           | 19               | 7                       | 12  | 63.2         |
| Neno             | 13               | 7                       | 6   | 46.2         |

### 3.7.2 Status of registration by ownership of facilities

Figure 2 below shows the status of registration among the health facilities that were identified during the census disaggregated by ownership status of the facilities. The private sector had only 9% of its facilities registered with the MCM, 23% of the CHAM facilities and 54% of the government facilities.

Figure 2: Status of statutory registration among health facilities disaggregated by ownership status



## 4.0 STAFFING LEVELS IN THE HEALTH SECTOR

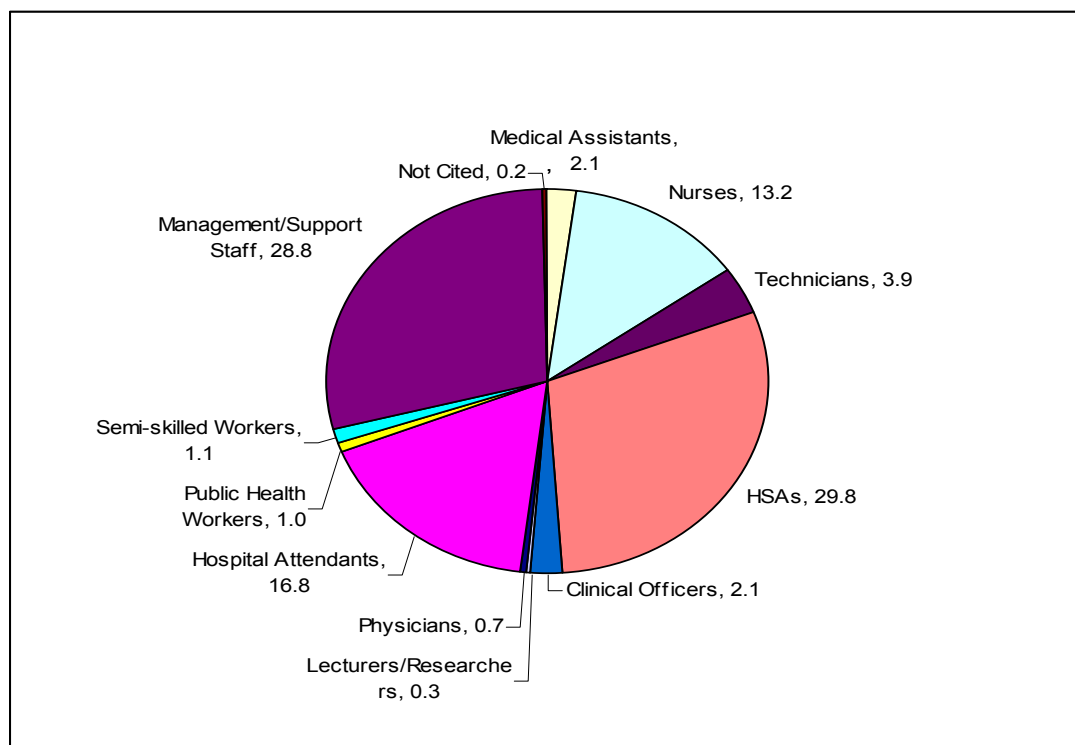
This chapter presents overall staffing levels in the health sector disaggregated by health sector zones, gender, location of work (rural, urban or semi-urban), level of facility and ownership of the facilities.

### 4.1 Distribution of Staff according Profession

A total of 33,766 staff were enumerated in the census and out of these, 10046 were Health Surveillance Assistants (HSAs) representing 30% of all the staff, 9739 were Health Management and Support staff representing 29%, 5681 were Hospital Attendants representing 17%, while Nurses (of all categories) constituted 13% of the staff (n=4450). The census enumerated a total of 248 Physicians and these constituted 1% of all the staff working in the health sector whereas Clinical Officers (C/O) and Medical Assistants (M/A) constituted 4% of the staff in the sector (698 C/Os and 711 M/As, respectively).

As the findings presented in Figure 3 below illustrate, Technicians belonging to various technical fields constitute 4% of the staff in the health sector (n=1314) whereas semi-skilled staff (HTC Counselors, home craft workers, carpenters etc) constitute 1% of the staff in the sector. Generally, the findings of the census show that Malawi has fewer qualified health professionals working in the health sector compared to the situation in Tanzania where in 2002 (MoH, Tanzania 2004), the findings of an appraisal of human resources showed that health attendants constituted the largest cadre within the health workforce (38%), followed by the group of nursing cadres (27% in Tanzania; 13% in Malawi) and the group of medical cadres (14% in Tanzania; 3% in Malawi).

Figure 3: Distribution of staff in the health sector according to Profession



## 4.2 Distribution of staff belonging to various professions according to sex of the staff and profession

Out of the 33,766 staff who were enumerated in the Census, 19,047 were males representing 56% whereas 14,719 were females representing 44% of the staff (Table 8). Of the 248 Physicians who were enumerated, 182 (73%) were males whereas 66 (27%) were females. For Clinical Officers, 91% were males whereas 9% were females. Among the Nurses, 88% were females while males constituted 12%. Generally, males dominate most of the professions except nursing, hospital attendants and the semi-skilled workers (home craft workers, home-based care workers etc.).

Table 8: Distribution of staff in the health sector according to sex of the staff and profession

| Profession               |                     | Gender |        | Total |
|--------------------------|---------------------|--------|--------|-------|
|                          |                     | Male   | Female |       |
| All Staff                | Count               | 19047  | 14719  | 33766 |
|                          | % within Profession | 56.4   | 43.6   | 100   |
| Physicians               | Count               | 182    | 66     | 248   |
|                          | % within Profession | 73.4   | 26.6   | 100   |
| Clinical Officers        | Count               | 638    | 60     | 698   |
|                          | % within Profession | 91.4   | 8.6    | 100   |
| Medical Assistants       | Count               | 589    | 122    | 711   |
|                          | % within Profession | 82.8   | 17.2   | 100   |
| Nurses                   | Count               | 515    | 3935   | 4450  |
|                          | % within Profession | 11.6   | 88.4   | 100   |
| Technicians              | Count               | 1036   | 278    | 1314  |
|                          | % within Profession | 78.8   | 21.2   | 100   |
| Lecturers/Researchers    | Count               | 54     | 48     | 102   |
|                          | % within Profession | 52.9   | 47.1   | 100   |
| HSAs                     | Count               | 6183   | 3863   | 10046 |
|                          | % within Profession | 61.5   | 38.5   | 100   |
| Hospital Attendants      | Count               | 2148   | 3533   | 5681  |
|                          | % within Profession | 37.8   | 62.2   | 100   |
| Public Health Workers    | Count               | 292    | 34     | 326   |
|                          | % within Profession | 89.6   | 10.4   | 100   |
| Semi-skilled Workers     | Count               | 57     | 312    | 369   |
|                          | % within Profession | 15.4   | 84.6   | 100   |
| Management/Support Staff | Count               | 7309   | 2430   | 9739  |
|                          | % within Profession | 75.0   | 25.0   | 100   |
| Not Cited                | Count               | 44     | 38     | 82    |
|                          | % within Profession | 53.7   | 46.3   | 100   |

## 4.3 Regional distribution of the staff belonging to various professions

Table 9 below shows the regional distribution of staff belonging to various categories. Overall, 46% of the 33,766 staff were working in the Southern Region (n=15369) whereas 39% (n=13082) were working in the Central Region and 16% (n=5315) were working in the northern region. Chapter 6 below compares staff distribution according to the results of the census with the 2007 mid-year population estimates.

Out of the 248 Physicians who were enumerated in the census, 118 (48%) were working in the Southern Region (SR) while 105 (42%) were working in the Central

Region (CR) and 25 (10%) were working in the Northern Region (NR). Generally, the distribution of the staff belonging to the various categories is similar with 43-48% of the staff working in the SR, 36-42% working in the CR and 8-18% working in the NR (Table 9).

Table 9: Regional distribution of the staff belonging to various professions

| Profession               |                  | Regions |        |       | Total |
|--------------------------|------------------|---------|--------|-------|-------|
|                          |                  | North   | Centre | South |       |
| All Staff                | Count            | 5315    | 13082  | 15369 | 33766 |
|                          | % across regions | 15.7    | 38.7   | 45.5  | 100   |
| Physicians               | Count            | 25      | 105    | 118   | 248   |
|                          | % across regions | 10.1    | 42.3   | 47.6  | 100   |
| Clinical Officers        | Count            | 123     | 251    | 324   | 698   |
|                          | % across regions | 17.6    | 36.0   | 46.4  | 100   |
| Medical Assistants       | Count            | 132     | 261    | 318   | 711   |
|                          | % across regions | 18.6    | 36.7   | 44.7  | 100   |
| Nurses                   | Count            | 753     | 1590   | 2107  | 4450  |
|                          | % across regions | 16.9    | 35.7   | 47.3  | 100   |
| Technicians              | Count            | 206     | 489    | 619   | 1314  |
|                          | % across regions | 15.7    | 37.2   | 47.1  | 100   |
| Lecturers/Researchers    | Count            | 8       | 49     | 45    | 102   |
|                          | % across regions | 7.8     | 48.0   | 44.1  | 100   |
| HSAs                     | Count            | 1284    | 4010   | 4752  | 10046 |
|                          | % across regions | 12.8    | 39.9   | 47.3  | 100   |
| Hospital Attendants      | Count            | 994     | 2173   | 2514  | 5681  |
|                          | % across regions | 17.5    | 38.3   | 44.3  | 100   |
| Public Health Workers    | Count            | 70      | 117    | 139   | 326   |
|                          | % across regions | 21.5    | 35.9   | 42.6  | 100   |
| Semi-skilled Workers     | Count            | 52      | 155    | 162   | 369   |
|                          | % across regions | 14.1    | 42.0   | 43.9  | 100   |
| Management/Support Staff | Count            | 1644    | 3833   | 4262  | 9739  |
|                          | % across regions | 16.9    | 39.4   | 43.8  | 100   |
| Not Cited                | Count            | 24      | 49     | 9     | 82    |
|                          | % across regions | 29.3    | 59.8   | 11.0  | 100   |

Out of the 4450 Nurses who were enumerated in the census, 47% (n=2107) were working in the SR, 36% (n=1590) were working in the CR while 17% (n=753) were working in the NR. The categories of Lecturers/Researchers and Health Management and Support Staff exclude Medical Doctors as these have been treated as Physicians in this categorisation. Nurses working as Lecturers or Tutors in training institutions were also excluded from the category of Lecturers/Researchers and were treated as Nurses. Details concerning positions or professions were not obtained for 82 health workers because they not interviewed in person and the other staff who provided their names were not sure of the exact details.

#### 4.4 Distribution of staff belonging to various professions according to Zones

The distribution of the staff belonging to various professions across the five zones is shown in Table 10 below. Overall, a quarter of the staff (n=8464) were working in the Central West Zone (CWZ), 24% (n=8035) were working in the South West Zone (SWZ), 22% (n=7334) were working in the South East Zone (SEZ), 14% (n=4618) were working in the Central East Zone (CEZ) while 16% (n=5315) were working in the North Zone (NZ). As the findings presented in Table 10 illustrate, the CEZ, SEZ and NZ had fewer Physicians in proportionate terms (4%, 9% and 10% of all Physicians, respectively) compared to the SWZ (39%) and CWZ (38%).

Table 10: Distribution of staff belonging to various professions according to Zones

|                          |                | Zones |              |              |            |            | Total |
|--------------------------|----------------|-------|--------------|--------------|------------|------------|-------|
| Profession               |                | North | Central East | Central West | South East | South West |       |
| All Staff                | Count          | 5315  | 4618         | 8464         | 7334       | 8035       | 33766 |
|                          | % across Zones | 15.7  | 13.7         | 25.1         | 21.7       | 23.8       | 100   |
| Physicians               | Count          | 25    | 10           | 95           | 23         | 95         | 248   |
|                          | % across Zones | 10.1  | 4.0          | 38.3         | 9.3        | 38.3       | 100   |
| Clinical Officers        | Count          | 123   | 81           | 170          | 131        | 193        | 698   |
|                          | % across Zones | 17.6  | 11.6         | 24.4         | 18.6       | 27.7       | 100   |
| Medical Assistants       | Count          | 132   | 126          | 135          | 161        | 157        | 711   |
|                          | % across Zones | 18.6  | 17.7         | 19.0         | 22.6       | 22.1       | 100   |
| Nurses                   | Count          | 753   | 531          | 1059         | 864        | 1243       | 4450  |
|                          | % across Zones | 16.9  | 11.9         | 23.8         | 19.4       | 27.9       | 100   |
| Technicians              | Count          | 206   | 120          | 369          | 259        | 360        | 1314  |
|                          | % across Zones | 15.7  | 9.1          | 28.1         | 19.7       | 27.4       | 100   |
| Lecturers/Researchers    | Count          | 8     | 0            | 49           | 13         | 32         | 102   |
|                          | % across Zones | 7.8   | 0.0          | 48.0         | 12.7       | 31.4       | 100   |
| HSAs                     | Count          | 1284  | 1747         | 2263         | 2586       | 2166       | 10046 |
|                          | % across Zones | 12.8  | 17.4         | 22.5         | 25.7       | 21.6       | 100   |
| Hospital Attendants      | Count          | 994   | 762          | 1411         | 1323       | 1191       | 5681  |
|                          | % across Zones | 17.5  | 13.4         | 24.8         | 23.3       | 21.0       | 100   |
| Public Health Workers    | Count          | 70    | 42           | 75           | 71         | 68         | 326   |
|                          | % across Zones | 21.5  | 12.9         | 23.0         | 21.8       | 20.9       | 100   |
| Semi-skilled Workers     | Count          | 52    | 68           | 87           | 101        | 61         | 369   |
|                          | % across Zones | 14.1  | 18.4         | 23.6         | 27.4       | 16.5       | 100   |
| Management/Support Staff | Count          | 1644  | 1129         | 2704         | 1799       | 2463       | 9739  |
|                          | % across Zones | 16.9  | 11.6         | 27.8         | 18.5       | 25.3       | 100   |
| Not Cited                | Count          | 24    | 2            | 47           | 3          | 6          | 82    |
|                          | % across Zones | 29.3  | 2.4          | 57.3         | 3.7        | 7.3        | 100   |

#### 4.5 Distribution of staff according to level of care provided by the facilities

Table 11 below shows the distribution of staff in the health sector according to the level of care being provided by the facilities where they were found working during the census. Approximately one third (32%) of the Physicians were working in health facilities that provide secondary care, 19% were working in primary level care facilities (mainly private clinics and hospitals), 20% were working in facilities that provide tertiary care 29% were working in training institutions, research projects and in other administration positions. Half of the Nurses (50%) were working in facilities that provide secondary care to patients, 28% in primary level facilities, 17% in tertiary level facilities and 5% in administration, research and training institutions.

Table 11: Distribution of the staff according to level of care provided by the facilities

| Profession               |                        | Level of Care provided by the Facility |           |          |        | Total |
|--------------------------|------------------------|----------------------------------------|-----------|----------|--------|-------|
|                          |                        | Primary                                | Secondary | Tertiary | Others |       |
| All Staff                | Count                  | 15089                                  | 13258     | 2953     | 2466   | 33766 |
|                          | % within level of care | 44.7                                   | 39.3      | 8.7      | 7.3    | 100   |
| Physicians               | Count                  | 47                                     | 78        | 50       | 73     | 248   |
|                          | % within level of care | 19.0                                   | 31.5      | 20.2     | 29.4   | 100   |
| Clinical Officers        | Count                  | 221                                    | 333       | 99       | 45     | 698   |
|                          | % within level of care | 31.7                                   | 47.7      | 14.2     | 6.4    | 100   |
| Medical Assistants       | Count                  | 487                                    | 197       | 13       | 14     | 711   |
|                          | % within level of care | 68.5                                   | 27.7      | 1.8      | 2.0    | 100   |
| Nurses                   | Count                  | 1263                                   | 2228      | 755      | 204    | 4450  |
|                          | % within level of care | 28.4                                   | 50.1      | 17.0     | 4.6    | 100   |
| Technicians              | Count                  | 352                                    | 629       | 207      | 126    | 1314  |
|                          | % within level of care | 26.8                                   | 47.9      | 15.8     | 9.6    | 100   |
| Lecturers/Researchers    | Count                  | 4                                      | 18        | 9        | 71     | 102   |
|                          | % within level of care | 3.9                                    | 17.6      | 8.8      | 69.6   | 100   |
| HSAs                     | Count                  | 7411                                   | 2507      | 30       | 98     | 10046 |
|                          | % within level of care | 73.8                                   | 25.0      | 0.3      | 1.0    | 100   |
| Hospital Attendants      | Count                  | 1998                                   | 2690      | 948      | 45     | 5681  |
|                          | % within level of care | 35.2                                   | 47.4      | 16.7     | 0.8    | 100   |
| Public Health Workers    | Count                  | 53                                     | 193       | 9        | 71     | 326   |
|                          | % within level of care | 16.3                                   | 59.2      | 2.8      | 21.8   | 100   |
| Semi-skilled Workers     | Count                  | 207                                    | 130       | 10       | 22     | 369   |
|                          | % within level of care | 56.1                                   | 35.2      | 2.7      | 6.0    | 100   |
| Management/Support Staff | Count                  | 3025                                   | 4237      | 802      | 1675   | 9739  |
|                          | % within level of care | 31.1                                   | 43.5      | 8.2      | 17.2   | 100   |
| Not Cited                | Count                  | 21                                     | 18        | 21       | 22     | 82    |
|                          | % within level of care | 25.6                                   | 22.0      | 25.6     | 26.8   | 100   |

The distribution of the staff belonging to various professionals presented in Table 12 above also show that Medical Assistants are predominantly working in primary level facilities (69%) whereas Clinical Officers are proportionately more in secondary facilities (48%) than in primary level facilities (32%). As expected, HSAs are predominantly working in facilities that provide primary level care (74%) and very few are working in facilities that provide tertiary care (n=30, <1%). Management and Support Staff are predominantly working in secondary level facilities mainly in district hospitals and district health offices that are attached to district hospitals.



#### 4.6 Distribution of the staff belonging to various professions according to ownership status of the facilities

Table 12 below shows the distribution of the staff belonging to various professions according to the ownership status of the facilities where they were found working during the census. Sixty-four percent (62%) of the staff were working in facilities owned by the government, 25% were working in CHAM facilities, 5% were working in private facilities, 3% were working in NGOs that provide health services, 2% were working in statutory institutions that provide health services and 1% were working in clinics run by companies. Forty-four percent (44%) of the 248 Physicians who were enumerated in the census were working government facilities, 16% were working in CHAM facilities, 20% were working in private clinics and hospitals and 17% were working in statutory-operated institutions mainly at the College of Medicine either as Lecturers or Researchers.

Two-thirds of the Nurses (65%) were working in government facilities, 22% in CHAM facilities, 4% were working in NGOs that provide health services, 7% were working in private clinics while the rest were working in clinics run by statutory organisations and companies. The majority of the HSAs were found working in government facilities (80%) followed by CHAM facilities 18%. The 9 HSAs who were found working in facilities run by statutory organisations were attached to research project sites mainly in Blantyre and Thyolo.

Table 12: Distribution of the staff belonging to various professions according to ownership status of the facilities

|                          |                | Ownership of Facility |      |      |         |           |         | Total |
|--------------------------|----------------|-----------------------|------|------|---------|-----------|---------|-------|
| Professions              |                | Government            | CHAM | NGO  | Private | Statutory | Company |       |
| All Staff                | Count          | 2175                  | 839  | 110  | 170     |           | 29      | 3376  |
|                          | % across owner | 4                     | 9    | 4    | 5       | 506       | 8       | 6     |
| Physicians               | Count          | 108                   | 40   | 7    | 49      | 43        | 1       | 248   |
|                          | % across owner | 43.5                  | 16.1 | 2.8  | 19.8    | 17.3      | 0.4     | 100   |
| Clinical Officers        | Count          | 404                   | 117  | 69   | 74      | 17        | 17      | 698   |
|                          | % across owner | 57.9                  | 16.8 | 9.9  | 10.6    | 2.4       | 2.4     | 100   |
| Medical Assistants       | Count          | 480                   | 117  | 15   | 66      | 8         | 25      | 711   |
|                          | % across owner | 67.5                  | 16.5 | 2.1  | 9.3     | 1.1       | 3.5     | 100   |
| Nurses                   | Count          | 2872                  | 956  | 187  | 320     | 88        | 27      | 4450  |
|                          | % across owner | 64.5                  | 21.5 | 4.2  | 7.2     | 2.0       | 0.6     | 100   |
| Technicians              | Count          | 671                   | 392  | 58   | 156     | 27        | 10      | 1314  |
|                          | % across owner | 51.1                  | 29.8 | 4.4  | 11.9    | 2.1       | 0.8     | 100   |
| Lecturers/Researchers    | Count          | 43                    | 40   | 9    | 0       | 9         | 1       | 102   |
|                          | % across owner | 42.2                  | 39.2 | 8.8  | 0.0     | 8.8       | 1.0     | 100   |
| HSAs                     | Count          | 8070                  | 0    | 50   | 51      | 9         | 76      | 1004  |
|                          | % across owner | 80.3                  | 17.8 | 0.5  | 0.5     | 0.1       | 0.8     | 100   |
| Hospital Attendants      | Count          | 3776                  | 0    | 39   | 120     | 12        | 74      | 5681  |
|                          | % across owner | 66.5                  | 29.2 | 0.7  | 2.1     | 0.2       | 1.3     | 100   |
| Public Health Workers    | Count          | 286                   | 26   | 8    | 0       | 5         | 1       | 326   |
|                          | % across owner | 87.7                  | 8.0  | 2.5  | 0.0     | 1.5       | 0.3     | 100   |
| Semi-skilled Workers     | Count          | 72                    | 259  | 29   | 9       | 0         | 0       | 369   |
|                          | % across owner | 19.5                  | 70.2 | 7.9  | 2.4     | 0.0       | 0.0     | 100   |
| Management/Support Staff | Count          | 4924                  | 4    | 614  | 855     | 287       | 65      | 9739  |
|                          | % across owner | 50.6                  | 30.7 | 6.3  | 8.8     | 2.9       | 0.7     | 100   |
| Not Cited                | Count          | 48                    | 8    | 19   | 5       | 1         | 1       | 82    |
|                          | % across owner | 58.5                  | 9.8  | 23.2 | 6.1     | 1.2       | 1.2     | 100   |

#### 4.7 Distribution of staff belonging to various professions according to location of work

The distribution of staff in health sector according to their location of work (rural, urban or semi-urban) is shown in Table 13 below. Slightly more than half of the staff in the health sector (53%) were working in facilities that are in rural areas and the remaining 43% were working in urban areas (24%) and semi-urban areas (23%). Of the 248 Physicians who were enumerated, 70% work in urban areas, 18% work in rural areas and 12% work in semi-urban areas mainly in District Hospitals, CHAM hospitals and in private clinics.

Of the 4450 Nurses who were enumerated, 35% work in the urban areas, 32% work in rural areas while 33% work in semi-urban areas. The trend is reversed for Medical Assistants as there are more Medical Assistants in rural (68%) and semi-urban areas (19%) compared to the urban areas (14%). Technicians (belonging to various technical fields) were working mainly in the urban areas (43%) followed by rural areas (32%) and semi-urban areas (25%).

Table 13: Distribution of staff belonging to various professions according to location of work

| Professions              |                   | Location of facility |       |            | Total |
|--------------------------|-------------------|----------------------|-------|------------|-------|
|                          |                   | Urban                | Rural | Semi-Urban |       |
| All Staff                | Count             | 8224                 | 17789 | 7753       | 33766 |
|                          | % within location | 24.4                 | 52.7  | 23.0       | 100   |
| Physicians               | Count             | 173                  | 45    | 30         | 248   |
|                          | % within location | 69.8                 | 18.1  | 12.1       | 100   |
| Clinical Officers        | Count             | 249                  | 188   | 261        | 698   |
|                          | % within location | 35.7                 | 26.9  | 37.4       | 100   |
| Medical Assistants       | Count             | 99                   | 480   | 132        | 711   |
|                          | % within location | 13.9                 | 67.5  | 18.6       | 100   |
| Nurses                   | Count             | 1565                 | 1402  | 1483       | 4450  |
|                          | % within location | 35.2                 | 31.5  | 33.3       | 100   |
| Technicians              | Count             | 567                  | 420   | 327        | 1314  |
|                          | % within location | 43.2                 | 32.0  | 24.9       | 100   |
| Lecturers/Researchers    | Count             | 70                   | 32    | 0          | 102   |
|                          | % within location | 68.6                 | 31.4  | 0.0        | 100   |
| HSAs                     | Count             | 659                  | 8015  | 1372       | 10046 |
|                          | % within location | 6.6                  | 79.8  | 13.7       | 100   |
| Hospital Attendants      | Count             | 1368                 | 2756  | 1557       | 5681  |
|                          | % within location | 24.1                 | 48.5  | 27.4       | 100   |
| Public Health Workers    | Count             | 77                   | 80    | 169        | 326   |
|                          | % within location | 23.6                 | 24.5  | 51.8       | 100   |
| Semi-skilled Workers     | Count             | 34                   | 285   | 50         | 369   |
|                          | % within location | 9.2                  | 77.2  | 13.6       | 100   |
| Management/Support Staff | Count             | 3310                 | 4064  | 2365       | 9739  |
|                          | % within location | 34.0                 | 41.7  | 24.3       | 100   |
| Not Cited                | Count             | 53                   | 22    | 7          | 82    |
|                          | % within location | 64.6                 | 26.8  | 8.5        | 100   |

## 4.8 District-wise distribution of staff

This section presents the distribution of staff belonging to the various professions according to the districts where they were found working during the census. The findings are presented zone by zone.

### 4.8.1 *Districts in the North Zone*

Table 14 below shows the distribution of staff belonging to various professions according to their districts of work in the North Zone. A total of 414 health workers were enumerated in Karonga including one Physician (<1% of all staff in the district), 9 Clinical Officers (2%), 15 Medical Assistants (4%) and 47 Nurses who constituted 115 of the all the health workers in the District. The distribution of the health workers in the rest of the districts in the Zone was as shown in Table 14 below. In absolute terms, Mzimba had the largest number of Physicians (15 out of 25 or 60% of all the Physicians in the Zone). The proportion of qualified health professionals (Physicians, Clinical officers, Medical Assistants and Nurses) among all the staff in the District was lowest in Likoma (12%) and highest in Mzimba (21%). In Chitipa qualified health professionals constituted 17% of all the staff in the district, 19% in Karonga, 17% in Rumphi and 18% in Nkhatabay.

Table 14: Distribution of staff belonging to various professions according to District of work in the North Zone

| Professions              |                   | District |         |        |        |          |        | Total |
|--------------------------|-------------------|----------|---------|--------|--------|----------|--------|-------|
|                          |                   | Chitipa  | Karonga | Rumphi | Mzimba | Nkhataba | Likoma |       |
| All Staff                | Count             | 414      | 677     | 724    | 290    | 546      | 52     | 531   |
|                          | % within District | 100      | 100     | 100    | 100    | 100      | 100    | 100   |
| Physicians               | Count             | 1        | 5       | 2      | 15     | 1        | 1      | 25    |
|                          | % within District | 0.2      | 0.7     | 0.3    | 0.5    | 0.2      | 0.2    | 0.5   |
| Clinical Officers        | Count             | 9        | 16      | 16     | 71     | 11       | 0      | 123   |
|                          | % within District | 2.2      | 2.4     | 2.2    | 2.4    | 2.0      | 0.0    | 2.3   |
| Medical Assistants       | Count             | 15       | 20      | 20     | 60     | 15       | 2      | 132   |
|                          | % within District | 3.6      | 3.0     | 2.8    | 2.1    | 2.7      | 3.9    | 2.5   |
| Nurses                   | Count             | 47       | 90      | 87     | 455    | 70       | 4      | 753   |
|                          | % within District | 11.      | 13.     | 12.    |        | 12.      |        |       |
| Technicians              | Count             | 4        | 3       | 0      | 15.7   | 8        | 7.8    | 14.2  |
|                          | % within District | 13       | 29      | 11     | 138    | 12       | 3      | 206   |
| Lecturers/Researchers    | Count             | 3.1      | 4.3     | 1.5    | 4.8    | 2.2      | 5.9    | 3.9   |
|                          | % within District | 0        | 0       | 0      | 8      | 0        | 0      | 8     |
| HSAs                     | Count             | 0.0      | 0.0     | 0.0    | 0.3    | 0.0      | 0.0    | 0.2   |
|                          | % within District | 137      | 203     | 190    | 561    | 183      | 10     | 128   |
| Hospital Attendants      | Count             | 33.      | 30.     | 26.    |        | 33.      | 19.    | 4     |
|                          | % within District | 1        | 0       | 2      | 19.3   | 7        | 3      | 24.2  |
| Public Health Workers    | Count             | 82       | 110     | 154    | 555    | 81       | 12     | 994   |
|                          | % within District | 19.      | 16.     | 21.    |        | 14.      | 23.    |       |
| Semi-skilled Workers     | Count             | 8        | 2       | 3      | 19.1   | 8        | 5      | 18.7  |
|                          | % within District | 9        | 10      | 13     | 26     | 11       | 1      | 70    |
| Management/Support Staff | Count             | 2.2      | 1.5     | 1.8    | 0.9    | 2.0      | 2.0    | 1.3   |
|                          | % within District | 3        | 9       | 4      | 32     | 2        | 2      | 52    |
| Not Cited                | Count             | 0.7      | 1.3     | 0.6    | 1.1    | 0.4      | 3.9    | 1.0   |
|                          | % within District | 98       | 182     | 225    | 966    | 158      | 15     | 164   |
|                          | Count             | 23.      | 26.     | 31.    |        | 28.      | 29.    | 4     |
|                          | % within District | 7        | 9       | 1      | 33.3   | 9        | 3      | 30.9  |
|                          | Count             | 0        | 3       | 2      | 15     | 2        | 2      | 24    |
|                          | % within District | 0.0      | 0.4     | 0.3    | 0.5    | 0.4      | 3.9    | 0.5   |

#### 4.8.2 Districts in Central East Zone

The distribution of health workers belonging to various professions who were enumerated in the Central East Zone is presented in Table 15 below. There were 1026

health workers in Kasungu half of whom were HSAs (52%), 17% were management and support staff, 13% were hospital attendants. The proportion of qualified health professionals (Physicians, Clinical officers, Medical Assistants and Nurses) in Kasungu was 14% and Technicians constituted 2% of the staff in the District. Across the districts in the Zone, the proportions of qualified health professionals among all staff ranged from 14% in Kasungu to 19% in Nkhotakota and in Salima, Dowa and Ntchisi Districts, the qualified professionals constituted 17%, 16% and 15% of all the staff in the district, respectively.

Table 15: Distribution of staff belonging to various professions according to District of work in the Central East Zone

| Professions              |                   | District |            |         |        |      | Total |
|--------------------------|-------------------|----------|------------|---------|--------|------|-------|
|                          |                   | Kasungu  | Nkhotakota | Ntchisi | Salima | Dowa |       |
|                          | Count             | 1026     | 941        | 492     | 932    | 1227 | 4618  |
|                          | % within District | 100      | 100        | 100     | 100    | 100  | 100   |
| Physicians               | Count             | 0        | 4          | 1       | 2      | 3    | 10    |
|                          | % within District | 0.0      | 0.4        | 0.2     | 0.2    | 0.2  | 0.2   |
| Clinical Officers        | Count             | 18       | 22         | 6       | 16     | 19   | 81    |
|                          | % within District | 1.8      | 2.3        | 1.2     | 1.7    | 1.5  | 1.8   |
| Medical Assistants       | Count             | 24       | 32         | 11      | 23     | 36   | 126   |
|                          | % within District | 2.3      | 3.4        | 2.2     | 2.5    | 2.9  | 2.7   |
| Nurses                   | Count             | 99       | 121        | 57      | 117    | 137  | 531   |
|                          | % within District | 9.6      | 12.9       | 11.6    | 12.6   | 11.2 | 11.5  |
| Technicians              | Count             | 20       | 35         | 9       | 25     | 31   | 120   |
|                          | % within District | 1.9      | 3.7        | 1.8     | 2.7    | 2.5  | 2.6   |
| HSAs                     | Count             | 537      | 257        | 204     | 325    | 424  | 1747  |
|                          | % within District | 52.3     | 27.3       | 41.5    | 34.9   | 34.6 | 37.8  |
| Hospital Attendants      | Count             | 134      | 147        | 83      | 175    | 223  | 762   |
|                          | % within District | 13.1     | 15.6       | 16.9    | 18.8   | 18.2 | 16.5  |
| Public Health Workers    | Count             | 10       | 10         | 6       | 10     | 6    | 42    |
|                          | % within District | 1.0      | 1.1        | 1.2     | 1.1    | 0.5  | 0.9   |
| Semi-skilled Workers     | Count             | 6        | 27         | 1       | 13     | 21   | 68    |
|                          | % within District | 0.6      | 2.9        | 0.2     | 1.4    | 1.7  | 1.5   |
| Management/Support Staff | Count             | 177      | 286        | 114     | 226    | 326  | 1129  |
|                          | % within District | 17.3     | 30.4       | 23.2    | 24.2   | 26.6 | 24.4  |
| Not Cited                | Count             | 1        | 0          | 0       | 0      | 1    | 2     |
|                          | % within District | 0.1      | 0.0        | 0.0     | 0.0    | 0.1  | 0.0   |

#### 4.8.3 Districts in Central West Zone

A total 1,115 health workers were enumerated in Ntcheu District, 3 Physicians (<1% of all staff in the District), 12 Clinical Officers (1%), 17 Medical Assistants (2%) and 122 Nurses (10%). There were 86 Physicians in Lilongwe District (91% of all the Physicians in the Zone), 3 Physicians each in Mchinji, Dedza and Ntcheu Districts. The proportion of qualified health professionals (Physicians, Clinical officers, Medical Assistants and Nurses) among all the staff the District was highest in Lilongwe (19%) and followed by Mchinji (15%), Dedza (14%) and was lowest in Ntcheu at 13%. Details for the rest of the cadres of staff are presented in Table 16 below.

Table 16: Distribution of staff belong to various professions according to District of work in the Central West Zone

| Professions              |                   | District |          |       |        | Total |
|--------------------------|-------------------|----------|----------|-------|--------|-------|
|                          |                   | Mchinji  | Lilongwe | Dedza | Ntcheu |       |
| All Staff                | Count             | 976      | 5140     | 1233  | 1115   | 8464  |
|                          | % within District | 100      | 100      | 100   | 100    | 100   |
| Physicians               | Count             | 3        | 86       | 3     | 3      | 95    |
|                          | % within District | 0.3      | 1.7      | 0.2   | 0.3    | 1.1   |
| Clinical Officers        | Count             | 17       | 126      | 15    | 12     | 170   |
|                          | % within District | 1.7      | 2.5      | 1.2   | 1.1    | 2.0   |
| Medical Assistants       | Count             | 23       | 71       | 24    | 17     | 135   |
|                          | % within District | 2.4      | 1.4      | 1.9   | 1.5    | 1.6   |
| Nurses                   | Count             | 107      | 707      | 133   | 112    | 1059  |
|                          | % within District | 11.0     | 13.8     | 10.8  | 10.0   | 12.5  |
| Technicians              | Count             | 32       | 276      | 32    | 29     | 369   |
|                          | % within District | 3.3      | 5.4      | 2.6   | 2.6    | 4.4   |
| Lecturers/Researchers    | Count             | 0        | 49       | 0     | 0      | 49    |
|                          | % within District | 0.0      | 1.0      | 0.0   | 0.0    | 0.6   |
| HSAs                     | Count             | 347      | 936      | 536   | 444    | 2263  |
|                          | % within District | 35.6     | 18.2     | 43.5  | 39.8   | 26.7  |
| Hospital Attendants      | Count             | 200      | 807      | 200   | 204    | 1411  |
|                          | % within District | 20.5     | 15.7     | 16.2  | 18.3   | 16.7  |
| Public Health Workers    | Count             | 8        | 50       | 11    | 6      | 75    |
|                          | % within District | 0.8      | 1.0      | 0.9   | 0.5    | 0.9   |
| Semi-skilled Workers     | Count             | 6        | 34       | 22    | 25     | 87    |
|                          | % within District | 0.6      | 0.7      | 1.8   | 2.2    | 1.0   |
| Management/Support Staff | Count             | 233      | 1952     | 257   | 262    | 2704  |
|                          | % within District | 23.9     | 38.0     | 20.8  | 23.5   | 31.9  |
| Not Cited                | Count             | 0        | 46       | 0     | 1      | 47    |
|                          | % within District | 0.0      | 0.9      | 0.0   | 0.1    | 0.6   |

#### 4.8.4 Districts in South East Zone

The distribution of health workers belonging to various professions in the South East Zone is presented in Table 18 below. A total of 1,453 health workers were enumerated in Mangochi District including 6 Physicians (<1% of all the staff in the District), 25 Clinical officers (2%), 40 Medical Assistants (3%) and 151 Nurses (10%). In all the Districts, HSAs constituted approximately a third of the staff that were enumerated. The proportion of qualified health professionals (Physicians, Clinical officers, Medical Assistants and Nurses) among all the staff the District were highest in Zomba and Mulanje Districts (17% in each) followed by Balaka and Machinga (16%), Mangochi (15%) and was lowest in Phalombe at 12%. Details concerning the distribution of the rest of the staff belonging to other professions was as shown in Table 17 below.



Table 17: Distribution of staff belong to various professions according to District of work in the South East Zone

| Professions              |                   | District |          |          |       |          |         | Total |
|--------------------------|-------------------|----------|----------|----------|-------|----------|---------|-------|
|                          |                   | Balaka   | Mangochi | Machinga | Zomba | Phalombe | Mulanje |       |
| All Staff                | Count             | 719      | 145      | 963      | 229   | 679      | 122     | 733   |
|                          | % within District | 100      | 3        | 100      | 7     | 100      | 3       | 4     |
| Physicians               | Count             | 0        | 6        | 1        | 14    | 1        | 1       | 23    |
|                          | % within District | 0.0      | 0.4      | 0.1      | 0.6   | 0.1      | 0.1     | 0.3   |
| Clinical Officers        | Count             | 11       | 25       | 18       | 53    | 6        | 18      | 131   |
|                          | % within District | 1.5      | 1.7      | 1.9      | 2.3   | 0.9      | 1.5     | 1.8   |
| Medical Assistants       | Count             | 11       | 40       | 25       | 33    | 16       | 36      | 161   |
|                          | % within District | 1.5      | 2.8      | 2.6      | 1.4   | 2.4      | 2.9     | 2.2   |
| Nurses                   | Count             | 92       | 151      | 107      | 301   | 59       | 154     | 864   |
|                          | % within District | 12.      | 11.      | 11.      | 13.1  | 8.7      | 12.6    | 11.8  |
| Technicians              | Count             | 22       | 53       | 26       | 100   | 22       | 36      | 259   |
|                          | % within District | 3.1      | 3.6      | 2.7      | 4.4   | 3.2      | 2.9     | 3.5   |
| Lecturers/Researchers    | Count             | 0        | 0        | 0        | 6     | 0        | 7       | 13    |
|                          | % within District | 0.0      | 0.0      | 0.0      | 0.3   | 0.0      | 0.6     | 0.2   |
| HSAs                     | Count             | 269      | 560      | 373      | 642   | 268      | 474     | 258   |
|                          | % within District | 37.      | 38.      | 38.      | 27.9  | 39.      | 38.8    | 6     |
| Hospital Attendants      | Count             | 106      | 255      | 183      | 465   | 115      | 199     | 132   |
|                          | % within District | 14.      | 17.5     | 19.      | 20.2  | 16.      | 16.3    | 3     |
| Public Health Workers    | Count             | 6        | 12       | 8        | 25    | 7        | 13      | 71    |
|                          | % within District | 0.8      | 0.8      | 0.8      | 1.1   | 1.0      | 1.1     | 1.0   |
| Semi-skilled Workers     | Count             | 13       | 30       | 18       | 27    | 8        | 5       | 101   |
|                          | % within District | 1.8      | 2.1      | 1.9      | 1.2   | 1.2      | 0.4     | 1.4   |
| Management/Support Staff | Count             | 188      | 321      | 203      | 630   | 177      | 280     | 179   |
|                          | % within District | 26.      | 21.      | 21.      | 27.4  | 26.      | 22.9    | 9     |
| Not Cited                | Count             | 1        | 0        | 1        | 1     | 0        | 0       | 3     |
|                          | % within District | 0.1      | 0.0      | 0.1      | 0.0   | 0.0      | 0.0     | 0.0   |

#### 4.8.5 Districts in South West Zone

Table 18 below shows the distribution of health workers who were enumerated in the South East Zone according to the District of work. In Neno, 253 health workers were

enumerated including 2 Physicians (1% of all the staff in the District), 7 Clinical Officers (3%) 10 Medical Assistants (4%) and 24 Nurses (10%). The proportion of qualified health professionals (Physicians, Clinical officers, Medical Assistants and Nurses) among all the staff the District was highest in Blantyre (25%) and Mwanza (24%) followed by Thyolo (18%), Neno and Chiradzulu (17% in each District), Nsanje (16%) and was lowest in Chikwawa (14%).

Table 18: Distribution of staff belong to various professions according to District of work in the South East Zone

| Professions              |                   | District |          |        |            |          |        |      | Total |
|--------------------------|-------------------|----------|----------|--------|------------|----------|--------|------|-------|
|                          |                   | Thyolo   | Blantyre | Mwanza | Chiradzulu | Chikwawa | Nsanje | Neno |       |
| Physicians               |                   | 150      | 364      |        |            |          |        |      | 803   |
|                          | Count             | 4        | 0        | 318    | 781        | 887      | 652    | 253  | 5     |
|                          | % within District | 100      | 100      | 100    | 100        | 100      | 100    | 100  | 100   |
| Clinical Officers        | Count             | 7        | 84       | 0      | 1          | 1        | 0      | 2    | 95    |
|                          | % within District | 0.5      | 2.3      | 0.0    | 0.1        | 0.1      | 0.0    | 0.8  | 1.2   |
|                          | Count             | 40       | 92       | 12     | 14         | 18       | 10     | 7    | 193   |
| Medical Assistants       | % within District | 2.7      | 2.5      | 3.8    | 1.8        | 2.0      | 1.5    | 2.8  | 2.4   |
|                          | Count             | 34       | 56       | 12     | 14         | 17       | 14     | 10   | 157   |
|                          | % within District | 2.3      | 1.5      | 3.8    | 1.8        | 1.9      | 2.1    | 4.0  | 2.0   |
| Nurses                   |                   |          |          |        |            |          |        |      | 124   |
|                          | Count             | 186      | 710      | 52     | 102        | 89       | 80     | 24   | 3     |
|                          | % within District | 12.4     | 19.5     | 16.    | 13.        | 10.      | 12.    |      |       |
| Technicians              | Count             | 33       | 227      | 14     | 26         | 25       | 24     | 11   | 360   |
|                          | % within District | 2.2      | 6.2      | 4.4    | 3.3        | 2.8      | 3.7    | 4.3  | 4.5   |
|                          | Count             | 12       | 17       | 0      | 0          | 0        | 3      | 0    | 32    |
| Lecturers/Researchers    | % within District | 0.8      | 0.5      | 0.0    | 0.0        | 0.0      | 0.5    | 0.0  | 0.4   |
|                          |                   |          |          |        |            |          |        |      | 216   |
|                          | Count             | 509      | 712      | 95     | 239        | 358      | 189    | 64   | 6     |
| HSAs                     | % within District | 33.8     | 19.6     | 29.    | 30.        | 40.      | 29.    | 25.  |       |
|                          |                   |          |          | 9      | 6          | 4        | 0      | 3    | 27.0  |
|                          | Count             |          |          |        |            |          |        |      | 119   |
| Hospital Attendants      | % within District | 16.7     | 13.1     | 13.    | 18.        | 14.      | 17.    | 12.  |       |
|                          | Count             | 15       | 25       | 8      | 3          | 9        | 3      | 6    | 14.8  |
|                          | % within District | 1.0      | 0.7      | 2.5    | 0.9        | 0.8      | 0.6    | 0.8  | 0.8   |
| Public Health Workers    | Count             | 20       | 7        | 1      | 4          | 12       | 10     | 7    | 61    |
|                          | % within District | 1.3      | 0.2      | 0.3    | 0.5        | 1.4      | 1.5    | 2.8  | 0.8   |
|                          | Count             |          | 122      |        |            |          |        |      | 246   |
| Management/Support Staff | % within District | 26.4     | 33.7     | 25.    | 29.        | 25.      | 31.    | 37.  |       |
|                          | Count             | 0        | 6        | 0      | 0          | 0        | 0      | 0    | 6     |
|                          | % within District | 0.0      | 0.2      | 0.0    | 0.0        | 0.0      | 0.0    | 0.0  | 0.1   |

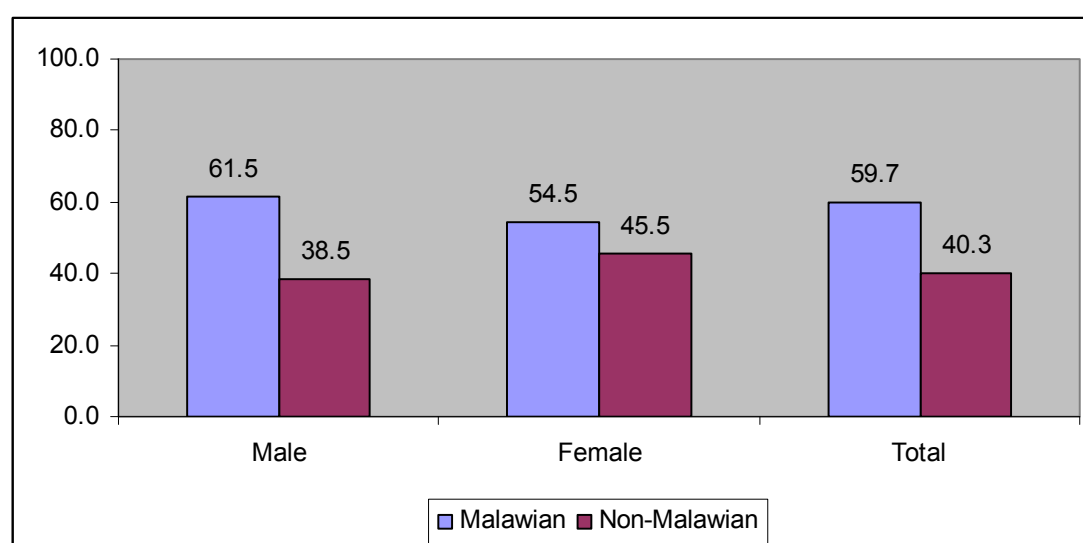
## 5.0 DETAILED CALSSIFICATION AND DISTRBUTION OF SELECTED HEALTH PROFESSIONAL STAFF

### 5.1 Physicians

#### 5.1.1 *Distribution of Physicians according to nationality*

Of the 248 Physicians who were enumerated in the census, 148 (60%) were Malawians by nationality whereas 40 were non-Malawians (Figure 4). Among the male Physicians, 62% were Malawians whereas 39% were not and among the female Physicians, 60% were Malawians whereas 40% were non-Malawian.

Figure 4: Nationality of the Physicians working in Malawi



#### 5.1.2 *Distribution of Physicians according to area of specialisation and nationality*

During the census, all Physicians who are Specialists were asked to state their area of specialization. For Physicians who were not interviewed in person, this information was provided by the human resource departments in their institutions. During the analysis of the census data, the areas of specialization as reported by the respondents of the census were cross-checked with the official list of Physicians and their areas of specialization as documented in the Government Gazette of November 2007 (2,955 Vol. XLIV No. 48). The results showed that of the 248 physicians who were enumerated in the Census, 77% (n=191) were general practitioners whereas the rest were specialized in various medical fields. A total of 10 Physicians specialized in surgery were enumerated in the census, 4 Malawians (40%) and 6 non-Malawians (60%). The details concerning various areas of specialization are presented in Table 19 below.

Table 19: Distribution of Physicians in Malawi disaggregated by nationality and areas of specialisation

| Area of specialization     |                     | Nationality |              |       |
|----------------------------|---------------------|-------------|--------------|-------|
|                            |                     | Malawian    | Non-Malawian | Total |
| All Physicians             | Count               | 148         | 100          | 248   |
|                            | % of all Physicians | 59.7        | 40.3         | 100   |
| General Practitioners      | Count               | 118         | 73           | 191   |
|                            | % of all Physicians | 61.8        | 38.2         | 77.0  |
| Radiology                  | Count               | 1           | 0            | 1     |
|                            | % of all Physicians | 100         | 0            | 0.4   |
| Surgery                    | Count               | 4.0         | 6.0          | 10    |
|                            | % of all Physicians | 40          | 60           | 4.0   |
| Obstetrics and Gaenecology | Count               | 4           | 3            | 7     |
|                            | % of all Physicians | 57.1        | 42.9         | 2.8   |
| Pediatrics                 | Count               | 3           | 5            | 8     |
|                            | % of all Physicians | 37.5        | 62.5         | 3.2   |
| Ophthalmology              | Count               | 1           | 1            | 2     |
|                            | % of all Physicians | 50.0        | 50.0         | 0.8   |
| Psychiatry                 | Count               | 1           | 0            | 1     |
|                            | % of all Physicians | 100.0       | 0.0          | 0.4   |
| ENT                        | Count               | 1           | 0            | 1     |
|                            | % of all Physicians | 100.0       | 0.0          | 0.4   |
| Physician                  | Count               | 5           | 2            | 7     |
|                            | % of all Physicians | 71.4        | 28.6         | 2.8   |
| Urology                    | Count               | 0           | 2            | 2     |
|                            | % of all Physicians | 0.0         | 100.0        | 0.8   |
| Anesthesiology             | Count               | 0           | 2            | 2     |
|                            | % of all Physicians | 0.0         | 100.0        | 0.8   |
| Osteopathy                 | Count               | 0.0         | 1.0          | 1     |
|                            | % of all Physicians | 0           | 100          | 0.4   |
| Dental                     | Count               | 3           | 2            | 5     |
|                            | % of all Physicians | 60.0        | 40.0         | 2.0   |
| Orthopedics                | Count               | 0           | 1            | 1     |
|                            | % of all Physicians | 0.0         | 100.0        | 0.4   |
| Hematology                 | Count               | 1           | 0            | 1     |
|                            | % of all Physicians | 100.0       | 0.0          | 0.4   |
| Physiotherapy              | Count               | 1           | 1            | 2     |
|                            | % of all Physicians | 50.0        | 50.0         | 0.4   |
| Anatomy                    | Count               | 1           | 0            | 1     |
|                            | % of all Physicians | 100.0       | 0.0          | 0.4   |
| Pathology                  | Count               | 2           | 0            | 2     |
|                            | % of all Physicians | 100.0       | 0.0          | 0.8   |
| Optition                   | Count               | 1           | 1            | 2     |
|                            | % of all Physicians | 50.0        | 50.0         | 0.8   |
| Immunology                 | Count               | 1           | 0            | 1     |
|                            | % of all Physicians | 100.0       | 0.0          | 0.4   |

### 5.1.3 Distribution of Physicians according to Region of Work and area of specialisation

The distribution of the Physicians across the three Regions of the country was as shown in Table 20 below. Of the 25 Physicians who were in the Northern Region, 23 (92%)

were General Practitioners and only two were Specialists, one in Dentistry and the other in immunology. The distribution of the Physicians in the Central and Southern Regions according to their areas of specialization was as shown in Table 20 below.

*Table 20: Distribution of Physicians in Malawi disaggregated by areas of specialisation and Region of work*

| Area of specialization     | Region |        |       | Total |
|----------------------------|--------|--------|-------|-------|
|                            | North  | Centre | South |       |
| General Practitioners      | 23     | 84     | 84    | 191   |
| Radiology                  | 0      | 0      | 1     | 1     |
| Surgery                    | 0      | 5      | 5     | 10    |
| Obstetrics and Gaenecology | 0      | 2      | 5     | 7     |
| Pediatrics                 | 0      | 2      | 6     | 8     |
| Ophthalmology              | 0      | 1      | 1     | 2     |
| Psychiatry                 | 0      | 0      | 1     | 1     |
| ENT                        | 0      | 0      | 1     | 1     |
| Physician                  | 0      | 3      | 4     | 7     |
| Urology                    | 0      | 2      | 0     | 2     |
| Anesthesiology             | 0      | 1      | 1     | 2     |
| Osteopathy                 | 0      | 0      | 1     | 1     |
| Dental                     | 1      | 2      | 2     | 5     |
| Orthopedics                | 0      | 1      | 0     | 1     |
| Hematology                 | 0      | 0      | 1     | 1     |
| Physiotherapy              | 0      | 1      | 1     | 2     |
| Anatomy                    | 0      | 0      | 1     | 1     |
| Pathology                  | 0      | 0      | 2     | 2     |
| Optition                   | 0      | 1      | 1     | 2     |
| Immunology                 | 1      | 0      | 0     | 1     |
| Total                      | 25     | 105    | 118   | 248   |

#### *5.1.4 Distribution according to Zone of Work and area of specialisation*

Table 21 below shows the distribution of the Physicians according to their areas of specialization and zone of work. There was only one specialist in the Central East Zone and was specialized in optition whereas the Central West and South West Zones had several specialists mainly in surgery, pediatrics and obstetrics and gaenecology.

Table 21: Distribution of Physicians disaggregated by Zone of work and areas of specialisation

| Area of specialization | Zone  |         |         |       |       | Total |
|------------------------|-------|---------|---------|-------|-------|-------|
|                        | North | Central | Central | South | South |       |
|                        | h     | East    | West    | East  | West  |       |
| General Practitioners  | 23    | 9       | 75      | 17    | 67    | 191   |
| Radiology              | 0     | 0       | 0       | 0     | 1     | 1     |
| Surgery                | 0     | 0       | 5       | 0     | 5     | 10    |
| Obstetrics and         |       |         |         |       |       |       |
| Gynecology             | 0     | 0       | 2       | 1     | 4     | 7     |
| Pediatrics             | 0     | 0       | 2       | 1     | 5     | 8     |
| Ophthalmology          | 0     | 0       | 1       | 0     | 1     | 2     |
| Psychiatry             | 0     | 0       | 0       | 1     | 0     | 1     |
| ENT                    | 0     | 0       | 0       | 0     | 1     | 1     |
| Physician              | 0     | 0       | 3       | 1     | 3     | 7     |
| Urology                | 0     | 0       | 2       | 0     | 0     | 2     |
| Anesthesiology         | 0     | 0       | 1       | 0     | 1     | 2     |
| Osteopathy             | 0     | 0       | 0       | 0     | 1     | 1     |
| Dental                 | 1     | 0       | 2       | 1     | 1     | 5     |
| Orthopedics            | 0     | 0       | 1       | 0     | 0     | 1     |
| Hematology             | 0     | 0       | 0       | 0     | 1     | 1     |
| Physiotherapy          | 0     | 0       | 1       | 0     | 1     | 2     |
| Anatomy                | 0     | 0       | 0       | 0     | 1     | 1     |
| Pathology              | 0     | 0       | 0       | 0     | 2     | 2     |
| Optition               | 0     | 1       | 0       | 1     | 0     | 2     |
| Immunology             | 1     | 0       | 0       | 0     | 0     | 1     |
| Total                  | 25    | 10      | 95      | 23    | 95    | 248   |

#### 5.1.5 Distribution of Physicians according to areas of specialisation and level of care provided by their facilities

The distribution of Physicians according to the level of care being provided by their facilities was as shown in Table 22 below. Out of the 47 Physicians who were working in primary care facilities, 35 were General Practitioners, 2 were Surgeons, 2 were Pediatricians and 3 were Dentists.

Table 22: Distribution of Physicians in Malawi according to areas of specialisation and level of care provided by their facilities

| Area of specialization     | Level of Care provided by Facility |           |          |        | Total |
|----------------------------|------------------------------------|-----------|----------|--------|-------|
|                            | Primary                            | Secondary | Tertiary | Others |       |
| General Practitioners      | 35                                 | 66        | 30       | 60     | 191   |
| Radiology                  | 1                                  | 0         | 0        | 0      | 1     |
| Surgery                    | 2                                  | 3         | 4        | 1      | 10    |
| Obstetrics and Gaenecology | 1                                  | 2         | 4        | 0      | 7     |
| Pediatrics                 | 2                                  | 2         | 1        | 3      | 8     |
| Ophthalmology              | 0                                  | 1         | 1        | 0      | 2     |
| Psychiatry                 | 0                                  | 0         | 1        | 0      | 1     |
| ENT                        | 0                                  | 0         | 0        | 1      | 1     |
| Physician                  | 2                                  | 1         | 1        | 3      | 7     |
| Urology                    | 0                                  | 0         | 2        | 0      | 2     |
| Anesthesiology             | 0                                  | 1         | 1        | 0      | 2     |
| Osteopathy                 | 0                                  | 0         | 0        | 1      | 1     |
| Dental                     | 3                                  | 1         | 1        | 0      | 5     |
| Orthopedics                | 0                                  | 0         | 1        | 0      | 1     |
| Hematology                 | 0                                  | 0         | 0        | 1      | 1     |
| Physiotherapy              | 1                                  | 0         | 1        | 0      | 2     |
| Anatomy                    | 0                                  | 0         | 0        | 1      | 1     |
| Pathology                  | 0                                  | 0         | 1        | 1      | 2     |
| Optition                   | 0                                  | 1         | 1        | 0      | 2     |
| Immunology                 | 0                                  | 0         | 0        | 1      | 1     |
| Total                      | 47                                 | 78        | 50       | 73     | 248   |

#### 5.1.6 Distribution of Physicians according to areas of specialisation and ownership of facilities

The results of the census show that of the 108 Physicians working in government facilities, 84 (78%) were General Practitioners, 4 (4%) were Surgeons and another 4 (4%) were specialized in Obstetrics and Gaenecology and three were Physicians. The rest of the distribution was as shown in Table 23 below.



Table 23: Distribution of Physicians in Malawi disaggregated by nationality and areas of specialisation

| Area of specialization     | Ownership of Facility |      |     |         |           |         | Total |
|----------------------------|-----------------------|------|-----|---------|-----------|---------|-------|
|                            | Government            | CHAM | NGO | Private | Statutory | Company |       |
| General Practitioners      | 84                    | 34   | 4   | 35      | 33        | 1       | 191   |
| Radiology                  | 0                     | 0    | 0   | 1       | 0         | 0       | 1     |
| Surgery                    | 4                     | 1    | 0   | 4       | 1         | 0       | 10    |
| Obstetrics and Gynaecology | 4                     | 1    | 0   | 2       | 0         | 0       | 7     |
| Pediatrics                 | 2                     | 0    | 1   | 2       | 3         | 0       | 8     |
| Ophthalmology              | 1                     | 1    | 0   | 0       | 0         | 0       | 2     |
| Psychiatry                 | 1                     | 0    | 0   | 0       | 0         | 0       | 1     |
| ENT                        | 0                     | 0    | 0   | 0       | 1         | 0       | 1     |
| Physician                  | 3                     | 0    | 0   | 2       | 2         | 0       | 7     |
| Urology                    | 2                     | 0    | 0   | 0       | 0         | 0       | 2     |
| Anesthesiology             | 1                     | 0    | 0   | 1       | 0         | 0       | 2     |
| Osteopathy                 | 0                     | 0    | 1   | 0       | 0         | 0       | 1     |
| Dental                     | 2                     | 2    | 0   | 1       | 0         | 0       | 5     |
| Orthopedics                | 1                     | 0    | 0   | 0       | 0         | 0       | 1     |
| Hematology                 | 0                     | 0    | 0   | 0       | 1         | 0       | 1     |
| Physiotherapy              | 1                     | 0    | 0   | 1       | 0         | 0       | 2     |
| Anatomy                    | 0                     | 0    | 0   | 0       | 1         | 0       | 1     |
| Pathology                  | 1                     | 0    | 0   | 0       | 1         | 0       | 2     |
| Optician                   | 1                     | 1    | 0   | 0       | 0         | 0       | 2     |
| Immunology                 | 0                     | 0    | 1   | 0       | 0         | 0       | 1     |
| Total                      | 108                   | 40   | 7   | 49      | 43        | 1       | 248   |

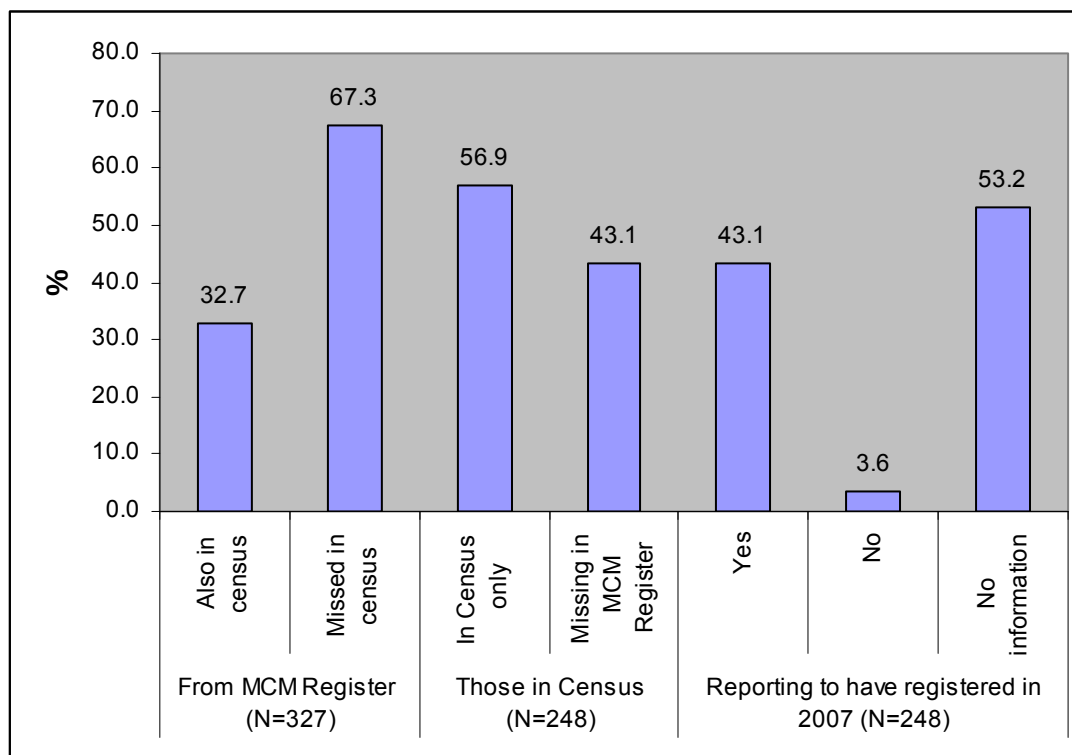
### 5.1.7 Status of Registration among Physicians

As stated above, all qualified health professionals wanting to practice in Malawi are obliged to register with the Medical Council of Malawi (MCM) for them to be allowed to practice and the registration is supposed to be renewed annually. The 2007 list of registered facilities and health professionals was released in the November 2007 issue of the Malawi Government Gazette (2,955 Vol. XLIV No. 48) under the Medical Practitioners and Dentists ACT (Cap 36:01) from page 183 to page 216. A supplementary list was also released in December 2007 containing health professionals that had registered after the first list was released. During the analysis of the census data, it was decided to compare the list of Physicians that was derived from the census with the official list of Physicians as documented by the Government of Malawi in November 2007 so as to compare the two lists and to compare with the responses from the Physicians who were asked to state if in 2007 they were registered by MCM or not.

The MCM, register according to the Government Gazette (referenced above), had a total of 327 Physicians and only 33% (n=107) were captured in the census whereas 67% were missed. It is not very clear why the 220 Physicians were missed and the list from MCM does not contain details concerning facilities where the registered Physicians are practicing their professions. The list of the Physicians who appear in the MCM list but were missed by the census is appended at the end of this report in Annex 1. As stated above, the census enumerated 248 Physicians and of these, 57% (n=141) do not appear in the MCM register whereas 43% (n=107) appear in the MCM register (Figure 5). From the interviews which were conducted with the Physicians during the census, 43% of the 248 Physicians reported to be registered (n=107) and

cross comparisons between the two lists show that the 107 Physicians who reported to have registered are all appearing in the MCM register.

Figure 5: Status of registration among Physicians



## 5.2 Clinical Officers and Medical Assistants

### 5.2.1 District-wise distribution of Clinical Officers and Medical Assistants

The district-wise distribution C/Os and M/As at the time of the census was as shown in Table 24 below and as would be observed, 18% of the C/Os were working in Lilongwe District, 13% were in Blantyre, 10% were in Mzimba and 8% were in Zomba. Among the M/As the distribution is also the same with the four districts and Mangochi taking a good proportion of the M/As. Chapter 6 below compares the distribution of staff belonging to various professions with the 2007 mid-year population estimates.

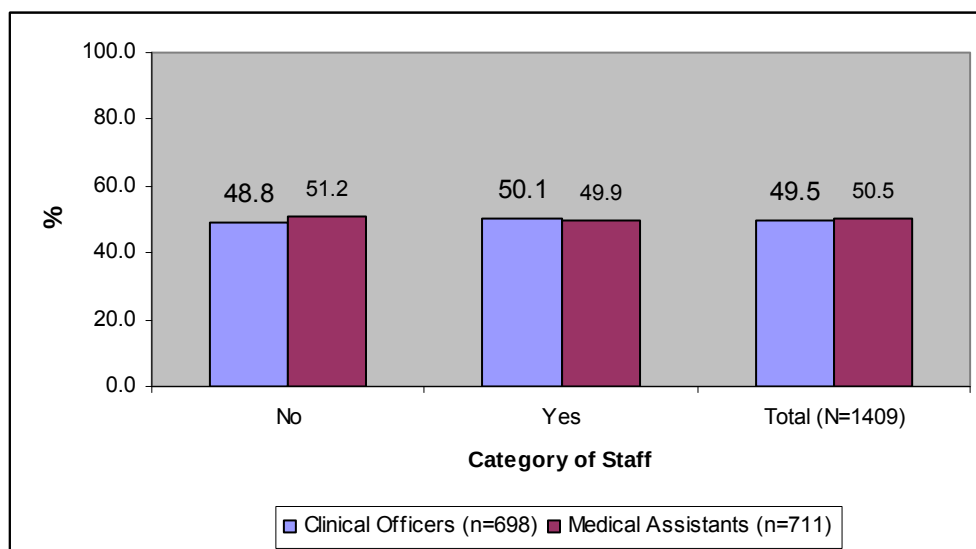
Table 24: District-wise distribution of Clinical Officers and Medical Assistants

|            | Category of staff |                    | Total |
|------------|-------------------|--------------------|-------|
|            | Clinical Officers | Medical Assistants |       |
| Total (N)  | 698               | 711                | 1409  |
| Chitipa    | 1.3               | 2.1                | 1.7   |
| Karonga    | 2.3               | 2.8                | 2.6   |
| Rumphi     | 2.3               | 2.8                | 2.6   |
| Mzimba     | 10.2              | 8.4                | 9.3   |
| Nkhatabay  | 1.6               | 2.1                | 1.8   |
| Likoma     | 0.0               | 0.3                | 0.1   |
| Kasungu    | 2.6               | 3.4                | 3.0   |
| Nkhotakota | 3.2               | 4.5                | 3.8   |
| Ntchisi    | 0.9               | 1.5                | 1.2   |
| Mchinji    | 2.4               | 3.2                | 2.8   |
| Salima     | 2.3               | 3.2                | 2.8   |
| Dowa       | 2.7               | 5.1                | 3.9   |
| Lilongwe   | 18.1              | 10.0               | 14.0  |
| Dedza      | 2.1               | 3.4                | 2.8   |
| Ntcheu     | 1.7               | 2.4                | 2.1   |
| Balaka     | 1.6               | 1.5                | 1.6   |
| Mangochi   | 3.6               | 5.6                | 4.6   |
| Machinga   | 2.6               | 3.5                | 3.1   |
| Zomba      | 7.6               | 4.6                | 6.1   |
| Phalombe   | 0.9               | 2.3                | 1.6   |
| Mulanje    | 2.6               | 5.1                | 3.8   |
| Thyolo     | 5.7               | 4.8                | 5.3   |
| Blantyre   | 13.2              | 7.9                | 10.5  |
| Mwanza     | 1.7               | 1.7                | 1.7   |
| Chiradzulu | 2.0               | 2.0                | 2.0   |
| Chikwawa   | 2.6               | 2.4                | 2.5   |
| Nsanje     | 1.4               | 2.0                | 1.7   |
| Neno       | 1.0               | 1.4                | 1.2   |

### 5.2.2 Status of Registration among Clinical Officers and Medical Assistants

Figure 6 below shows the status of registration among C/Os and M/As in Malawi. Overall, half of the C/Os and M/As reported to be registered with the MCM whereas the other half reported not have registered or renewed their registration with the MCM.

Figure 6: Status of Registration among Clinical Officers and Medical Assistants



### 5.3 Nurses

In earlier sections, Nurses belonging to Nurses/Midwives, Nurse Technicians and Auxiliary nursing categories were all lumped together as nurses. In this section, the three categories are treated separately so as to discuss the distribution of each category by Region, Zone, Districts, level of care being provided by their facilities, location of work and ownership of their facilities.

#### 5.3.1 Distribution of Nurses belonging to various categories across Regions, Zones and Location of work

The census enumerated a total of 3052 Nurses/Midwives, 982 Nurse Technicians and Auxiliary in Malawi. Of the 3052 Nurses who were enumerated, 495 (16%) were working in the Northern Region, 1061 (35%) were working in the Central Region and 1496 (49%) were working in the Southern Region. The distribution among Nurse Technicians across the three Regions was 16% in the North, 40% in the Centre and 45% in the South whereas among the Auxiliary Nurses, the distribution was 26% in the North, 33% in the Centre and 41% in the South (Table 25).

Table 25: Distribution of Nurses belonging to various categories across Regions, Zones and Location of work

|                 |            | Category of Nurses |                   |                  | Total |
|-----------------|------------|--------------------|-------------------|------------------|-------|
|                 |            | Nurses/Midwives    | Nurse Technicians | Auxiliary Nurses |       |
| All Staff       | Count      | 3052               | 982               | 416              | 4450  |
|                 | % of Total | 100                | 100               | 100              | 100   |
| <b>Region</b>   |            |                    |                   |                  |       |
| North           | Count      | 495                | 152               | 106              | 753   |
|                 | % of Total | 16.2               | 15.5              | 25.5             | 16.9  |
| Centre          | Count      | 1061               | 391               | 138              | 1590  |
|                 | % of Total | 34.8               | 39.8              | 33.2             | 35.7  |
| South           | Count      | 1496               | 439               | 172              | 2107  |
|                 | % of Total | 49.0               | 44.7              | 41.3             | 47.3  |
| <b>Zone</b>     |            |                    |                   |                  |       |
| North           | Count      | 495                | 152               | 106              | 753   |
|                 | % of Total | 16.2               | 15.5              | 25.5             | 16.9  |
| Central East    | Count      | 315                | 147               | 69               | 531   |
|                 | % of Total | 10.3               | 15.0              | 16.6             | 11.9  |
| Central West    | Count      | 746                | 244               | 69               | 1059  |
|                 | % of Total | 24.4               | 24.8              | 16.6             | 23.8  |
| South East      | Count      | 579                | 220               | 65               | 864   |
|                 | % of Total | 19.0               | 22.4              | 15.6             | 19.4  |
| South West      | Count      | 917                | 219               | 107              | 1243  |
|                 | % of Total | 30.0               | 22.3              | 25.7             | 27.9  |
| <b>Location</b> |            |                    |                   |                  |       |
| Urban           | Count      | 1189               | 254               | 122              | 1565  |
|                 | % of Total | 39.0               | 25.9              | 29.3             | 35.2  |
| Rural           | Count      | 991                | 388               | 23               | 1402  |
|                 | % of Total | 32.5               | 39.5              | 5.5              | 31.5  |
| Semi-Urban      | Count      | 872                | 340               | 271              | 1483  |
|                 | % of Total | 28.6               | 34.6              | 65.1             | 33.3  |

The distribution of Nurses belonging to various nursing categories according to the location of their work showed that Nurses/Midwives were proportionately more in the urban areas (39%) compared with the rural areas (33%) and semi-urban areas (29%). However, Nurse Technicians were proportionately more in the rural areas (40%) than in the urban areas (26%) and semi-urban areas (35%). The Auxiliary Nurses were found more in the semi-urban areas (65%) than in the urban areas (29%) and rural areas (6%).

### 5.3.2 District-wise distribution of Nurses belonging to various categories

Table 26 below shows the district-wise distribution of Nurses belonging to the three categories of Nurses namely Nurse/Midwives, Nurse Technicians and Auxiliary Nurses. Of the 3052 Nurse/Midwives in Malawi, 18% were working in Blantyre, 17% were in Lilongwe and 10% were in Mzimba. The distribution for the rest of the cadres across the districts was as shown in Table 27 below.

Table 26: District-wise distribution of Nurses belonging to different nursing categories

|                        | Category of Nurses |                   |                  | Total       |
|------------------------|--------------------|-------------------|------------------|-------------|
|                        | Nurses/Midwives    | Nurse Technicians | Auxiliary Nurses |             |
| <b>Total in Malawi</b> | <b>3052</b>        | <b>982</b>        | <b>416</b>       | <b>4450</b> |
| Chitipa                | 0.8                | 0.9               | 3.1              | 1.1         |
| Karonga                | 1.8                | 1.7               | 4.1              | 2.0         |
| Rumphi                 | 2.1                | 0.9               | 3.1              | 2.0         |
| Mzimba                 | 9.5                | 11.2              | 13.0             | 10.2        |
| Nkhatabay              | 1.8                | 0.6               | 2.2              | 1.6         |
| Likoma                 | 0.1                | 0.1               | 0.0              | 0.1         |
| Kasungu                | 2.2                | 2.2               | 2.6              | 2.2         |
| Nkhotakota             | 2.5                | 3.7               | 2.2              | 2.7         |
| Ntchisi                | 1.0                | 1.2               | 3.1              | 1.3         |
| Mchinji                | 2.6                | 1.7               | 2.9              | 2.4         |
| Salima                 | 1.8                | 4.5               | 4.6              | 2.6         |
| Dowa                   | 2.9                | 3.4               | 4.1              | 3.1         |
| Lilongwe               | 17.1               | 15.7              | 7.2              | 15.9        |
| Dedza                  | 2.8                | 3.1               | 4.3              | 3.0         |
| Ntcheu                 | 2.0                | 4.4               | 2.2              | 2.5         |
| Balaka                 | 2.4                | 1.1               | 1.7              | 2.1         |
| Mangochi               | 3.8                | 2.7               | 2.2              | 3.4         |
| Machinga               | 2.3                | 1.7               | 4.6              | 2.4         |
| Zomba                  | 7.1                | 6.8               | 3.8              | 6.8         |
| Phalombe               | 1.0                | 3.0               | 0.0              | 1.3         |
| Mulanje                | 2.3                | 7.0               | 3.4              | 3.5         |
| Thyolo                 | 4.4                | 4.0               | 3.1              | 4.2         |
| Blantyre               | 18.1               | 10.2              | 13.7             | 16.0        |
| Mwanza                 | 1.0                | 1.3               | 1.9              | 1.2         |
| Chiradzulu             | 2.1                | 2.7               | 2.4              | 2.3         |
| Chikwawa               | 2.4                | 1.0               | 1.4              | 2.0         |
| Nsanje                 | 1.5                | 2.1               | 3.1              | 1.8         |
| Neno                   | 0.5                | 0.9               | 0.0              | 0.5         |

### 5.3.3 Distribution of Nurses according to level of care provided by their facilities and category of Nurses

Of the 3052 Nurse/Midwives who were enumerated in the Census, 44% were working in facilities that provide secondary care whereas 32% were in facilities that provide primary care, 18% were in facilities that provide tertiary care while 6% were in administration or project offices and research and training institutions. Among the Nurse Technicians, the majority (61%) were working in facilities that provide secondary care followed by primary care level facilities (25%) and tertiary level facilities (12%). Details are presented in Table 27 below.

Table 27: Distribution of Nurses according to level of care provided by their facilities and category of Nurses

| Level of Care provided by Facilities | Category of Nurses |                   |                  | Total |
|--------------------------------------|--------------------|-------------------|------------------|-------|
|                                      | Nurses/Midwives    | Nurse Technicians | Auxiliary Nurses |       |
| Total in Malawi                      | 3052               | 982               | 416              | 4450  |
| Primary                              | 32.2               | 24.6              | 9.4              | 28.4  |
| Secondary                            | 43.8               | 61.0              | 70.0             | 50.1  |
| Tertiary                             | 18.1               | 12.3              | 19.7             | 17.0  |
| Others                               | 5.9                | 2.0               | 1.0              | 4.6   |

#### 5.3.4 Distribution of Nurses according to ownership status of their facilities and category of Nurses

The findings of the census presented in Table 28 below showed that the majority of the Nurses regardless of category were working in Government facilities, 65% of the Nurse/Midwives, 53% of the Nurse Technicians and 86% Auxiliary Nurses. CHAM facilities had 19% of the Nurse/Midwives, 37% of the Nurse Technicians and 7% of the Auxiliary Nurses.

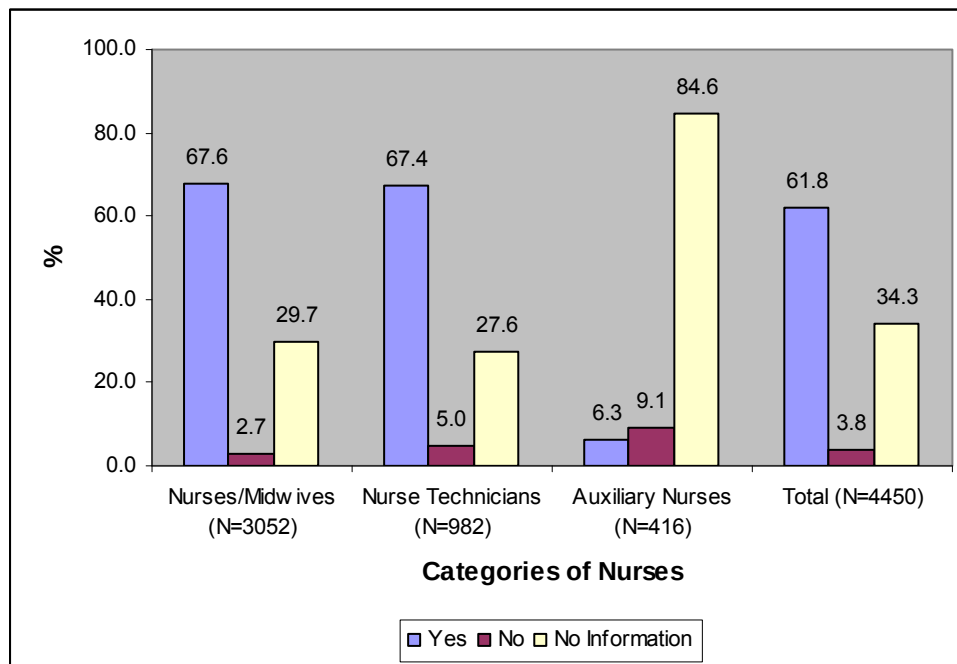
Table 28: Distribution of Nurses according to ownership status of their facilities and category of Nurses

| Ownership of Facilities | Nurses/Midwives | Category of Nurses |                  |      | Total |
|-------------------------|-----------------|--------------------|------------------|------|-------|
|                         |                 | Nurse Technicians  | Auxiliary Nurses |      |       |
| Total in Malawi         | 3052            | 982                | 416              | 4450 | 0     |
| Government              | 65.4            | 53.0               | 85.8             | 64.5 |       |
| CHAM                    | 18.5            | 36.8               | 7.0              | 21.5 |       |
| NGO                     | 4.6             | 3.1                | 3.8              | 4.2  |       |
| Private for profit      | 7.9             | 6.5                | 3.4              | 7.2  |       |
| Statutory Organisation  | 2.7             | 0.5                | 0.0              | 2.0  |       |
| Company                 | 0.8             | 0.2                | 0.0              | 0.6  |       |

#### 5.3.5 Status of Statutory Registration among Nurses

The statutory registration professional body for Nurses in Malawi is the Nurses and Midwives Council of Malawi (NMCM) and all Nurses are required by law to register with the NMCM annually for them to practice in the country. In the census, all the nurses regardless of category were asked to state if they were registered by the NMCM at the time of the census. The findings on this are presented in Figure 7 below. Overall, 62% of the Nurses reported to be registered with the NMCM at the time of the census, 68% of the Nurse/Midwives, 67% of the Nurse Technicians and 6% of the Auxiliary Nurses.

Figure 7: Status of Statutory Registration among Nurses

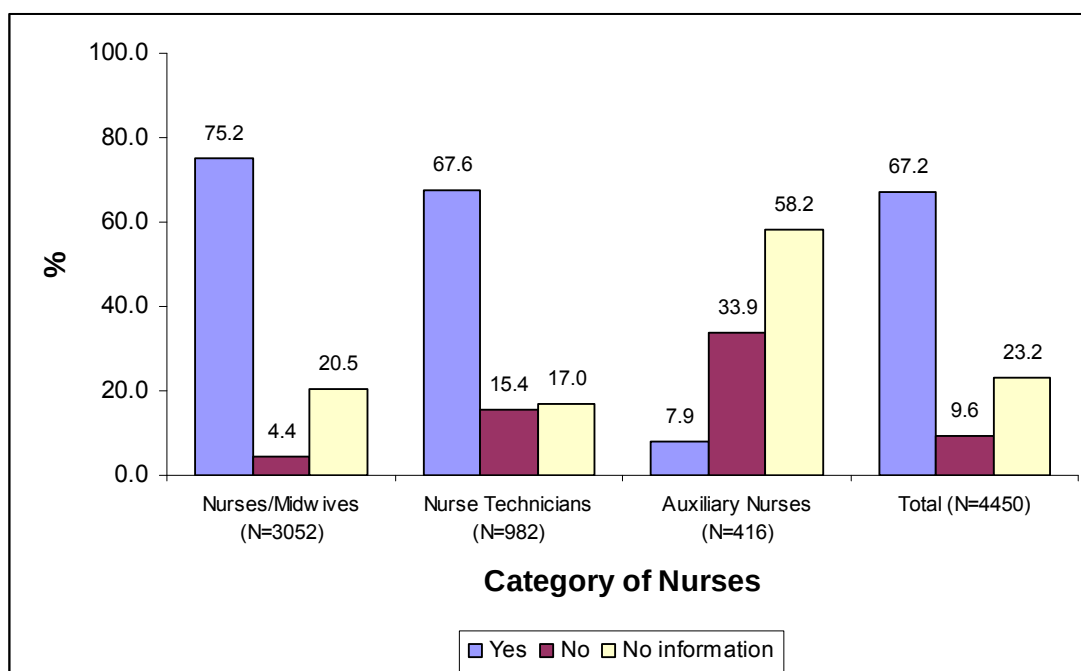


### 5.3.6 Proportion of Nurses with Midwifery Skills

In addition to the regular nursing course (either at degree, diploma or certificate levels), Nurses are supposed to undertake another training on midwifery skills for them to qualify and be able to professionally work in antenatal clinics and maternity wards. In the census, all the nurses were asked to state if they had midwifery skills, a question to which 67% of the Nurses answered in the affirmative, 75% of the Nurse/Midwives, 67% of the Nurse Technicians and 8% of the Auxiliary Nurses (Figure 8 below). When asked where they undertook the midwifery training, almost all the Nurse/Midwives and Nurse Technicians that reported to have the skills cited recognized health training institutions (some in Malawi others abroad) whereas among the Auxiliary Nurses there was visible division with almost half citing on-the-job training while the other half citing training institutions.



Figure 8: Proportion of Nurses with Midwifery Skills



## 5.4 Technicians

### 5.4.1 Distribution of technicians across Regions disaggregated by category of Technicians

In earlier Chapters, the discussion on the distribution of Technicians lumped together Technicians that have various skills into one category of Technicians. In this section, the various categories of Technicians are presented separately. The census enumerated a total of Laboratory Technicians and Laboratory Aides in the country and of these, nearly half (49%) were working in the Southern Region, 36% were working in the Central Region and 15% were in the Northern Region (Table 29). Generally, the distribution of the Technicians was in favour of the Southern Region, perhaps reflecting population issues and geographical coverage. A discussion on the population to qualified health personnel is presented later in the report.

Table 29: Distribution of technicians across Regions disaggregated by category of Technicians

|                           |                  | Regions |        |       |       |
|---------------------------|------------------|---------|--------|-------|-------|
|                           |                  | North   | Centre | South | Total |
| All Technicians           | Count            | 206     | 489    | 619   | 1314  |
|                           | % across regions | 15.7    | 37.2   | 47.1  | 100.0 |
| Laboratory Personnel      | Count            | 71      | 174    | 236   | 481   |
|                           | % across regions | 14.8    | 36.2   | 49.1  | 100.0 |
| Radiography Personnel     | Count            | 0       | 3      | 6     | 9     |
|                           | % across regions | 0.0     | 33.3   | 66.7  | 100.0 |
| Dental Personnel          | Count            | 39      | 85     | 91    | 215   |
|                           | % across regions | 18.1    | 39.5   | 42.3  | 100.0 |
| Pharmacy Personnel        | Count            | 43      | 116    | 139   | 298   |
|                           | % across regions | 14.4    | 38.9   | 46.6  | 100.0 |
| Physiotherapy Personnel   | Count            | 0       | 3      | 6     | 9     |
|                           | % across regions | 0.0     | 33.3   | 66.7  | 100.0 |
| Optical Personnel         | Count            | 0       | 2      | 5     | 7     |
|                           | % across regions | 0.0     | 28.6   | 71.4  | 100.0 |
| Anesthetic Personnel      | Count            | 13      | 35     | 40    | 88    |
|                           | % across regions | 14.8    | 39.8   | 45.5  | 100.0 |
| Ophthalmology Personnel   | Count            | 4       | 6      | 7     | 17    |
|                           | % across regions | 23.5    | 35.3   | 41.2  | 100.0 |
| Orthopedic Personnel      | Count            | 16      | 24     | 34    | 74    |
|                           | % across regions | 21.6    | 32.4   | 45.9  | 100.0 |
| Radiography Personnel     | Count            | 19      | 37     | 47    | 103   |
|                           | % across regions | 18.4    | 35.9   | 45.6  | 100.0 |
| Rehabilitation Assistants | Count            | 0       | 4      | 7     | 11    |
|                           | % across regions | 0.0     | 36.4   | 63.6  | 100.0 |
| Leprosy Assistants        | Count            | 1       | 0      | 1     | 2     |
|                           | % across regions | 50.0    | 0.0    | 50.0  | 100.0 |

#### 5.4.2 Distribution of technicians across Zones disaggregated by category of Technicians

The distribution of Technicians belonging to various categories across the five Health Zones was as shown in Table 30 below. Generally, the South West Zone and Central West Zone had proportionately more of the Technicians regardless of category except for Leprosy Assistants who were only enumerated in the North and South West Zones.

Table 30: Distribution of Technicians across Zones disaggregated by category of Technicians (%)

|                           | Zones |              |              |            |            | N     |
|---------------------------|-------|--------------|--------------|------------|------------|-------|
|                           | North | Central East | Central West | South East | South West |       |
| All Technicians           | 206   | 120          | 369          | 259        | 360        | 1314  |
|                           | 15.7  | 9.1          | 28.1         | 19.7       | 27.4       | 100.0 |
| Laboratory Personnel      | 14.8  | 7.7          | 28.5         | 19.5       | 29.5       | 481   |
| Radiography Personnel     | 0.0   | 11.1         | 22.2         | 11.1       | 55.6       | 9     |
| Dental Personnel          | 18.1  | 6.0          | 33.5         | 22.3       | 20.0       | 215   |
| Pharmacy Personnel        | 14.4  | 10.4         | 28.5         | 22.5       | 24.2       | 298   |
| Physiotherapy Personnel   | 0.0   | 0.0          | 33.3         | 0.0        | 66.7       | 9     |
| Optical Personnel         | 0.0   | 14.3         | 14.3         | 28.6       | 42.9       | 7     |
| Anesthetic Personnel      | 14.8  | 17.0         | 22.7         | 18.2       | 27.3       | 88    |
| Ophthalmology Personnel   | 23.5  | 17.6         | 17.6         | 17.6       | 23.5       | 17    |
| Orthopedic Personnel      | 21.6  | 9.5          | 23.0         | 12.2       | 33.8       | 74    |
| Radiography Personnel     | 18.4  | 11.7         | 24.3         | 17.5       | 28.2       | 103   |
| Rehabilitation Assistants | 0.0   | 0.0          | 36.4         | 9.1        | 54.5       | 11    |
| Leprosy Assistants        | 50.0  | 0.0          | 0.0          | 0.0        | 50.0       | 2     |

#### 5.4.3 Distribution of Technicians belonging to various categories according to location of work

Table 31 below shows the distribution of Technicians belonging to various categories according to location of work. Of the 481 Laboratory Technicians who were enumerated, 42% were working in urban areas, 37% were working in rural areas whereas 22% were in semi-urban areas. Generally, it would appear that most Technicians are working either in urban or semi-urban areas except for Pharmacy Assistants, Dental Assistants and Laboratory Assistants (Table 31).

Table 31: Distribution of Technicians belonging to various categories according to location of work

|                           | Location of Facility |       |            | N     |
|---------------------------|----------------------|-------|------------|-------|
|                           | Urban                | Rural | Semi-Urban |       |
| All Technicians           | 567                  | 420   | 327        | 1314  |
| % within location         | 43.2                 | 32.0  | 24.9       | 100.0 |
| Laboratory Personnel      | 41.6                 | 36.6  | 21.8       | 481   |
| Radiography Personnel     | 55.6                 | 0.0   | 44.4       | 9     |
| Dental Personnel          | 41.4                 | 35.8  | 22.8       | 215   |
| Pharmacy Personnel        | 41.6                 | 40.9  | 17.4       | 298   |
| Physiotherapy Personnel   | 88.9                 | 11.1  | 0.0        | 9     |
| Optical Personnel         | 57.1                 | 14.3  | 28.6       | 7     |
| Anesthetic Personnel      | 31.8                 | 15.9  | 52.3       | 88    |
| Ophthalmology Personnel   | 41.2                 | 5.9   | 52.9       | 17    |
| Orthopedic Personnel      | 56.8                 | 8.1   | 35.1       | 74    |
| Radiography Personnel     | 47.6                 | 20.4  | 32.0       | 103   |
| Rehabilitation Assistants | 100.0                | 0.0   | 0.0        | 11    |
| Leprosy Assistants        | 0.0                  | 50.0  | 50.0       | 2     |

#### 5.4.4 *Distribution of Technicians belonging to various categories according to level of care provided by their facilities*

The distribution of Technicians belonging to various trades according to the level of being provided by their facilities was as shown in Table 32 below. Of the 481 Laboratory Technicians who were enumerated in the census, 45% were working in secondary level facilities, 34% were working in primary level facilities, 10% were working in tertiary level facilities while 12% were working in laboratories belonging to research and training institutions and project offices. The distribution for the rest of the Technicians was as shown in Table 32 below. As would be observed from the Table, Technicians belonging to dentistry, pharmacy, physiotherapy and rehabilitation categories were mainly working in primary and secondary level facilities whereas Opticians, Anesthetists, Ophthalmologists, Orthopedicians and Radiographers were mainly working in secondary or Tertiary level facilities.

*Table 32: Distribution of Technicians belonging to various trades according to level of care provided by their facilities*

|                           | Level of Care |           |          |        | N     |
|---------------------------|---------------|-----------|----------|--------|-------|
|                           | Primary       | Secondary | Tertiary | Others |       |
| All Technicians           | 352           | 629       | 207      | 126    | 1314  |
| % across levels of care   | 26.8          | 47.9      | 15.8     | 9.6    | 100.0 |
| Laboratory Personnel      | 33.5          | 45.1      | 9.8      | 11.6   | 481   |
| Radiography Personnel     | 0.0           | 77.8      | 0.0      | 22.2   | 9     |
| Dental Personnel          | 34.4          | 46.5      | 15.8     | 3.3    | 215   |
| Pharmacy Personnel        | 24.8          | 45.3      | 10.7     | 19.1   | 298   |
| Physiotherapy Personnel   | 88.9          | 11.1      | 0.0      | 0.0    | 9     |
| Optical Personnel         | 14.3          | 42.9      | 42.9     | 0.0    | 7     |
| Anesthetic Personnel      | 8.0           | 68.2      | 23.9     | 0.0    | 88    |
| Ophthalmology Personnel   | 5.9           | 58.8      | 29.4     | 5.9    | 17    |
| Orthopedic Personnel      | 12.2          | 41.9      | 44.6     | 1.4    | 74    |
| Radiography Personnel     | 6.8           | 62.1      | 30.1     | 1.0    | 103   |
| Rehabilitation Assistants | 90.9          | 0.0       | 9.1      | 0.0    | 11    |
| Leprosy Assistants        | 0.0           | 50.0      | 0.0      | 50.0   | 2     |

#### 5.4.5 *Distribution of Technicians belonging to various categories according to ownership status of their facilities*

Table 33 below shows the distribution of the Technicians belonging to various trades according to the ownership status of the facilities in Malawi. As would be observed from the Table, most of the Technicians were working in government facilities except for Physiotherapists who were mainly working in the private sector and Opticians who were equally found in CHAM facilities and Rehabilitation Assistants who were mainly found working for facilities run by NGOs and in the private sector.

Table 33: Distribution of Technicians belonging to various trades according to ownership status of their facilities

|                           | Ownership of Facilities |      |      |         |           |         | N     |
|---------------------------|-------------------------|------|------|---------|-----------|---------|-------|
|                           | Government              | CHAM | NGO  | Private | Statutory | Company |       |
| All Technicians           | 671                     | 392  | 58   | 156     | 27        | 10      | 1314  |
| % across ownership status | 51.1                    | 29.8 | 4.4  | 11.9    | 2.1       | 0.8     | 100.0 |
| Laboratory Personnel      | 39.7                    | 32.0 | 6.4  | 15.0    | 5.6       | 1.2     | 481   |
| Radiography Personnel     | 66.7                    | 0.0  | 0.0  | 33.3    | 0.0       | 0.0     | 9     |
| Dental Personnel          | 54.9                    | 35.3 | 0.5  | 9.3     | 0.0       | 0.0     | 215   |
| Pharmacy Personnel        | 48.7                    | 37.2 | 4.0  | 8.7     | 0.0       | 1.3     | 298   |
| Physiotherapy Personnel   | 0.0                     | 11.1 | 22.2 | 66.7    | 0.0       | 0.0     | 9     |
| Optical Personnel         | 42.9                    | 42.9 | 0.0  | 14.3    | 0.0       | 0.0     | 7     |
| Anesthetic Personnel      | 72.7                    | 19.3 | 1.1  | 6.8     | 0.0       | 0.0     | 88    |
| Ophthalmology Personnel   | 94.1                    | 5.9  | 0.0  | 0.0     | 0.0       | 0.0     | 17    |
| Orthopedic Personnel      | 82.4                    | 6.8  | 2.7  | 8.1     | 0.0       | 0.0     | 74    |
| Radiography Personnel     | 63.1                    | 23.3 | 1.9  | 11.7    | 0.0       | 0.0     | 103   |
| Rehabilitation Assistants | 9.1                     | 0.0  | 54.5 | 36.4    | 0.0       | 0.0     | 11    |
| Leprosy Assistants        | 50.0                    | 0.0  | 50.0 | 0.0     | 0.0       | 0.0     | 2     |

#### 5.4.6 Status of Registration among Technicians

Just like Physicians, Clinical Officers, Medical Assistants and Nurses, all Technicians are required by law to register with statutory professional registration bodies for them to practice in the country. During the census, the Technicians were asked to state if they were registered with any professional body at the time of the census, a question to which only 29% answered in affirmation, 9% said they were not registered while 63% did not respond or no information was provided by their colleagues. Details concerning the registration status for the various Technicians were as shown in Table 34 below.

Table 34: Status of registration among the Technicians belonging to various trades

|                           | Registered in at time of census? |      |                | N     |
|---------------------------|----------------------------------|------|----------------|-------|
|                           | Yes                              | No   | No information |       |
| All Technicians           | 379                              | 114  | 821            | 1314  |
| % of all Technicians      | 28.8                             | 8.7  | 62.5           | 100.0 |
| Laboratory Personnel      | 23.5                             | 8.7  | 67.8           | 481   |
| Radiography Personnel     | 33.3                             | 0.0  | 66.7           | 9     |
| Dental Personnel          | 32.1                             | 7.0  | 60.9           | 215   |
| Pharmacy Personnel        | 16.8                             | 10.1 | 73.2           | 298   |
| Physiotherapy Personnel   | 0.0                              | 11.1 | 88.9           | 9     |
| Optical Personnel         | 0.0                              | 14.3 | 85.7           | 7     |
| Anesthetic Personnel      | 68.2                             | 6.8  | 25.0           | 88    |
| Ophthalmology Personnel   | 58.8                             | 17.6 | 23.5           | 17    |
| Orthopedic Personnel      | 50.0                             | 10.8 | 39.2           | 74    |
| Radiography Personnel     | 35.9                             | 7.8  | 56.3           | 103   |
| Rehabilitation Assistants | 0.0                              | 0.0  | 100.0          | 11    |
| Leprosy Assistants        | 0.0                              | 0.0  | 100.0          | 2     |

## 6.0 SKILLS MIX AMONG THE HEALTH WORKERS

This Chapter presents the findings of the census with regard to skills mix, proportion of health service providers among all staff employed in the sector and the ratio of nurses to clinicians. The findings are disaggregated by regions, zones, districts and level of care.

### 6.1 Proportion of health service providers among all staff in the health sector

#### 6.1.1 *Disaggregated by Regions, Zones, Location and Districts*

Health service providers were defined to include Clinicians (doctors, clinical officers and medical assistants), Nurses, Technicians and all other associate professionals as well as other less qualified health cadres engaged in the delivery of health services. As such, the category excluded management and support staff who help the health system to function but do not provide the health services directly to the population. The findings, presented in Table 35 below show 71% of the staff in the health sector were health service providers and the regional distribution is almost similar across all the three regions (69-72%). However, some differences are observed when location (rural, urban or semi-urban) of work is taken into consideration. In the urban areas, 59% of the staff were health service providers whereas 31% were management and support staff, 77% and 69% of the staff in rural and semi-urban areas were health service providers. At district level, Lilongwe (at 61%), Neno (at 63%) Blantyre (at 66%), and Lilongwe (at 66%) had the lowest proportions of staff who were health service providers among all the staff working in the sector compared to the other districts which recorded proportions ranging from 67% to 83%.

Table 35: Proportion of health service providers among all staff in the health sector disaggregated by Region, Zone, Location of work and District

|                         | Total Number of Staff | Health Service Providers |                              |
|-------------------------|-----------------------|--------------------------|------------------------------|
|                         |                       | Total Number             | % of all Staff in the Sector |
| Malawi                  | 33766                 | 23945                    | 70.9                         |
| <b>Region</b>           |                       |                          |                              |
| North                   | 5315                  | 3647                     | 69                           |
| Centre                  | 13082                 | 9200                     | 70                           |
| South                   | 15369                 | 11098                    | 72                           |
| <b>Zone</b>             |                       |                          |                              |
| North                   | 5315                  | 3647                     | 69                           |
| Central East            | 4618                  | 3487                     | 76                           |
| Central West            | 8464                  | 5713                     | 67                           |
| South East              | 7334                  | 5532                     | 75                           |
| South West              | 8035                  | 5566                     | 69                           |
| <b>Location of work</b> |                       |                          |                              |
| Urban                   | 8224                  | 4861                     | 59                           |
| Rural                   | 17789                 | 13703                    | 77                           |
| Semi-Urban              | 7753                  | 5381                     | 69                           |
| <b>District</b>         |                       |                          |                              |
| Chitipa                 | 414                   | 316                      | 76                           |
| Karonga                 | 677                   | 492                      | 73                           |
| Rumphi                  | 724                   | 497                      | 69                           |
| Mzimba                  | 2902                  | 1921                     | 66                           |
| Nkhatabay               | 547                   | 387                      | 71                           |
| Likoma                  | 51                    | 34                       | 67                           |
| Kasungu                 | 1026                  | 848                      | 83                           |
| Nkhotakota              | 941                   | 655                      | 70                           |
| Ntchisi                 | 492                   | 378                      | 77                           |
| Mchinji                 | 976                   | 743                      | 76                           |
| Salima                  | 932                   | 706                      | 76                           |
| Dowa                    | 1227                  | 900                      | 73                           |
| Lilongwe                | 5140                  | 3142                     | 61                           |
| Dedza                   | 1233                  | 976                      | 79                           |
| Ntcheu                  | 1115                  | 852                      | 76                           |
| Balaka                  | 719                   | 530                      | 74                           |
| Mangochi                | 1453                  | 1132                     | 78                           |
| Machinga                | 963                   | 759                      | 79                           |
| Zomba                   | 2297                  | 1666                     | 73                           |
| Phalombe                | 679                   | 502                      | 74                           |
| Mulanje                 | 1223                  | 943                      | 77                           |
| Thyolo                  | 1504                  | 1107                     | 74                           |
| Blantyre                | 3640                  | 2406                     | 66                           |
| Mwanza                  | 318                   | 238                      | 75                           |
| Chiradzulu              | 781                   | 550                      | 70                           |
| Chikwawa                | 887                   | 659                      | 74                           |
| Nsanje                  | 652                   | 447                      | 69                           |
| Neno                    | 253                   | 159                      | 63                           |

### 6.1.2 Disaggregated by level of care provided by the facilities and ownership of facilities

Table 36 below shows the proportion of health service providers among all staff working in the health sector disaggregated by level of care provided by their facilities and ownership status of the facilities. In primary care facilities, 80% of the staff were health service providers, 68% of the staff working in secondary level facilities and 72% of the staff working in the tertiary care facilities. Secondary care facilities have lower proportions because they include District Hospitals which are also attached to district Health Offices where most administration functions take place at the district level whereas in the category of 'others' include administration staff at national and Zone levels as well as staff working in project offices and in research and training institutions who may not be providing care directly to the population.

Table 36: Proportion of health service providers among of all staff disaggregated by level of care of facilities and ownership of the facilities

|                                       | Total Number of Staff | Health Service Providers<br>Total Number | % of all Staff in the Sector |
|---------------------------------------|-----------------------|------------------------------------------|------------------------------|
| Malawi                                | 33766                 | 23945                                    | 70.9                         |
| <b>Level of care</b>                  |                       |                                          |                              |
| Primary                               | 15089                 | 12043                                    | 79.8                         |
| Secondary                             | 13258                 | 9003                                     | 67.9                         |
| Tertiary                              | 2953                  | 2130                                     | 72.1                         |
| Others                                | 2466                  | 769                                      | 31.2                         |
| <b>Ownership status of facilities</b> |                       |                                          |                              |
| Government                            | 21754                 | 16782                                    | 77.1                         |
| CHAM                                  | 8399                  | 5397                                     | 64.3                         |
| NGO                                   | 1104                  | 471                                      | 42.7                         |
| Private for profit                    | 1705                  | 845                                      | 49.6                         |
| Statutory Organisation                | 506                   | 218                                      | 43.1                         |
| Company                               | 298                   | 232                                      | 77.9                         |

Over two thirds of the staff working in facilities owned by the government (77%) and companies (78%) were health service providers compared to 64% of the staff working in CHAM facilities, 43% of the staff working in facilities run by NGOs and half (50%) of the staff working for the private sector and 43% of the staff in statutory organisations.

## 6.2 Number of Nurses per Clinician

### 6.2.1 Disaggregated by region, zone and districts

Clinicians were defined to include all Physicians, Clinical Officers and Medical Assistants. At national level, there were 2.7 Nurses per Clinician and the ratio was found lower in the Central Region at 2.6 Nurses per Clinician) compared to the other Regions. At the Zone level, the ratio of Nurse to Clinician was highest in the South West Zone (2.8 Nurses to 1 Clinician) and lowest in the Central East Zone at 2.4 Nurses to 1 Clinician (Table 37).



In rural areas, the ratio of Nurses to Clinicians was 2.0 Nurses to 1 Clinician and was the lowest compared to urban areas (3.0 Nurses to 1 Clinician) and semi-urban areas at 3.5 Nurses to 1 Clinician. At district level the ratios range from 1.2 Nurses to 1 Clinician in Neno to 4.2 Nurses to 1 Clinician in Balaka. Details are presented in Table 37 below.

*Table 37: Ratio of nurses to clinicians disaggregated by Regions, Zones, Location and Districts*

|                  | Total Number of Nurses | Total Number of Clinicians | Nurses per Clinician |
|------------------|------------------------|----------------------------|----------------------|
| Malawi           | 4450                   | 1657                       | 2.7                  |
| <b>Regions</b>   |                        |                            |                      |
| North            | 753                    | 280                        | 2.7                  |
| Centre           | 1590                   | 617                        | 2.6                  |
| South            | 2107                   | 760                        | 2.8                  |
| <b>Zones</b>     |                        |                            |                      |
| North            | 753                    | 280                        | 2.7                  |
| Central East     | 531                    | 217                        | 2.4                  |
| Central West     | 1059                   | 400                        | 2.6                  |
| South East       | 864                    | 315                        | 2.7                  |
| South West       | 1243                   | 445                        | 2.8                  |
| <b>Location</b>  |                        |                            |                      |
| Urban            | 1565                   | 521                        | 3.0                  |
| Rural            | 1402                   | 713                        | 2.0                  |
| Semi-Urban       | 1483                   | 423                        | 3.5                  |
| <b>Districts</b> |                        |                            |                      |
| Chitipa          | 47                     | 25                         | 1.9                  |
| Karonga          | 90                     | 41                         | 2.2                  |
| Rumphi           | 87                     | 38                         | 2.3                  |
| Mzimba           | 455                    | 146                        | 3.1                  |
| Nkhatabay        | 70                     | 28                         | 2.5                  |
| Likoma           | 4                      | 2                          | 2.0                  |
| Kasungu          | 99                     | 42                         | 2.4                  |
| Nkhotakota       | 121                    | 58                         | 2.1                  |
| Ntchisi          | 57                     | 18                         | 3.2                  |
| Mchinji          | 107                    | 43                         | 2.5                  |
| Salima           | 117                    | 41                         | 2.9                  |
| Dowa             | 137                    | 58                         | 2.4                  |
| Lilongwe         | 707                    | 283                        | 2.5                  |
| Dedza            | 133                    | 42                         | 3.2                  |
| Ntcheu           | 112                    | 32                         | 3.5                  |
| Balaka           | 92                     | 22                         | 4.2                  |
| Mangochi         | 151                    | 71                         | 2.1                  |
| Machinga         | 107                    | 44                         | 2.4                  |
| Zomba            | 301                    | 100                        | 3.0                  |
| Phalombe         | 59                     | 23                         | 2.6                  |
| Mulanje          | 154                    | 55                         | 2.8                  |
| Thyolo           | 186                    | 81                         | 2.3                  |
| Blantyre         | 710                    | 232                        | 3.1                  |
| Mwanza           | 52                     | 24                         | 2.2                  |
| Chiradzulu       | 102                    | 29                         | 3.5                  |
| Chikwawa         | 89                     | 36                         | 2.5                  |
| Nsanje           | 80                     | 24                         | 3.3                  |

### 6.2.2 Disaggregated by level of care provided by their facilities and ownership status of the facilities

Table 38 below shows the average number of Nurses per Clinician disaggregated by level of care provided by the facilities and ownership status of the facilities. Generally, the average number of Nurses per Clinician was very low in the primary care facilities where 1.7 Nurses were available for 1 Clinician compared to the secondary care facilities where 3.7 Nurses were available for 1 Clinician and in tertiary care facilities where 4.7 Nurses were available per Clinician.

Table 38: Average number of nurses per clinician disaggregated by level of care provided by their facilities and ownership status of the facilities

|                        | Total Number of Nurses | Total Number of Clinicians | Nurses per Clinician |
|------------------------|------------------------|----------------------------|----------------------|
| Malawi                 | 4450                   | 1657                       | 2.7                  |
| <b>Level of care</b>   |                        |                            |                      |
| Primary                | 1263                   | 755                        | 1.7                  |
| Secondary              | 2228                   | 608                        | 3.7                  |
| Tertiary               | 755                    | 162                        | 4.7                  |
| Others                 | 204                    | 132                        | 1.5                  |
|                        | 4450                   | 1657                       | 2.7                  |
| <b>Ownership</b>       |                        |                            |                      |
| Government             | 2872                   | 992                        | 2.9                  |
| CHAM                   | 956                    | 274                        | 3.5                  |
| NGO                    | 187                    | 91                         | 2.1                  |
| Private for profit     | 320                    | 189                        | 1.7                  |
| Statutory Organisation | 88                     | 68                         | 1.3                  |
| Company                | 27                     | 43                         | 0.6                  |

When ownership status of the facilities is taken into consideration, 2.9 Nurses were available for 1 Clinician and the ratio is highest in CHAM facilities where 3.5 Nurses were available for 1 Clinician. The Nurse to Clinician ratios were lowest in facilities run by statutory organisations (1.3 Nurses to 1 Clinician) and facilities run by the private sector (1.7 Nurses to 1 Clinician).

## 6.3 Ratio of population to number of staff in the Zones and Districts

Table 40 below shows the staff to population ratio at the time of the Census using the 2007 mid-year projected population estimates for Malawi (see: [www.nso.malawi.net](http://www.nso.malawi.net)). The staff considered for this analysis are Physicians, Clinical Officers, Medical Assistants, Nurses and HSAs.

### 6.3.1 Physician Population Ratio

The Physician population ratio was estimated at 1:53176 and was highest in the Northern Region (1:62039) followed by the Central Region at 1:53031. Across the Zones, the highest population per Physician ratio was recorded in the Central East Zone at 1:203730 followed by the South East Zone at 1:136310. In urban areas, the Physician population ratio was 1:10326 while in the rural areas the ratio was 1:152016.

Across the districts, the highest Physician Population ratio was registered in Mulanje (1:557138) followed by Chikwawa (1:463888), Machinga (1:440,492) and these three districts had only one Physician in the whole district. Districts such as Kasungu, Balaka

and Nsanje had no Physician at all such that in these districts it implies that entire district population had no access to a Physician who was working in their district Table 39).

Table 39: Average population per qualified health professional in the districts

|                 | 2007 Mid-Year Population | Population covered per different category of staff |                   |                    |                |        |      | Health Workforce |
|-----------------|--------------------------|----------------------------------------------------|-------------------|--------------------|----------------|--------|------|------------------|
|                 |                          | Physicians                                         | Clinical Officers | Medical Assistants | All Clinicians | Nurses | HSAs |                  |
| Malawi          | 13187632                 | 53176                                              | 18893             | 18548              | 7959           | 2964   | 1313 | 0                |
| <b>Region</b>   |                          |                                                    |                   |                    |                |        |      |                  |
| North           | 1550966                  | 62039                                              | 12609             | 11750              | 5539           | 2060   | 1208 | 0                |
| Centre          | 5568238                  | 53031                                              | 22184             | 21334              | 9025           | 3502   | 1389 | 0                |
| South           | 6068428                  | 51427                                              | 18730             | 19083              | 7985           | 2880   | 1277 | 0                |
| <b>Location</b> |                          |                                                    |                   |                    |                |        |      |                  |
| Urban           | 1786434                  | 10326                                              | 7174              | 18045              | 3429           | 1141   | 2711 | 1                |
| Rural           | 11401198                 | 152016                                             | 25392             | 18629              | 10036          | 3952   | 1215 | 0                |
| <b>Zone</b>     |                          |                                                    |                   |                    |                |        |      |                  |
| North           | 1550966                  | 62039                                              | 12609             | 11750              | 5539           | 2060   | 1208 | 0                |
| Central East    | 2037299                  | 203730                                             | 25152             | 16169              | 9388           | 3837   | 1166 | 0                |
| Central West    | 3530939                  | 37168                                              | 20770             | 26155              | 8827           | 3334   | 1560 | 0                |
| South East      | 3135134                  | 136310                                             | 23932             | 19473              | 9953           | 3629   | 1212 | 0                |
| South West      | 2933294                  | 30877                                              | 15198             | 18683              | 6592           | 2360   | 1354 | 0                |
| <b>District</b> |                          |                                                    |                   |                    |                |        |      |                  |
| Chitipa         | 168880                   | 168880                                             | 18764             | 11259              | 6755           | 3593   | 1233 | 0                |
| Karonga         | 250775                   | 50155                                              | 15673             | 12539              | 6116           | 2786   | 1235 | 0                |
| Rumphi          | 156616                   | 78308                                              | 9789              | 7831               | 4121           | 1800   | 824  | 0                |
| Mzimba          | 764518                   | 50968                                              | 10768             | 12742              | 5236           | 1680   | 1363 | 0                |
| Nkhatabay       | 199083                   | 99542                                              | 18098             | 13272              | 7110           | 2844   | 1088 | 0                |
| Likoma          | 11094                    | n/a                                                | /a                | 5547               | 5547           | 2774   | 1109 | 0                |
| Kasungu         | 650103                   | n/a                                                | 36117             | 27088              | 15479          | 6567   | 1211 | 0                |
| Nkhotakota      | 301604                   | 75401                                              | 13709             | 9425               | 5200           | 2493   | 1174 | 0                |
| Ntchisi         | 231165                   | 231165                                             | 38528             | 21015              | 12843          | 4056   | 1133 | 0                |
| Mchinji         | 440162                   | 146721                                             | 25892             | 19137              | 10236          | 4114   | 1268 | 0                |
| Salima          | 342979                   | 171490                                             | 21436             | 14912              | 8365           | 2931   | 1055 | 0                |
| Dowa            | 511448                   | 170483                                             | 26918             | 14207              | 8818           | 3733   | 1206 | 0                |
| Lilongwe        | 1951278                  | 22689                                              | 15486             | 27483              | 6895           | 2760   | 2085 | 0                |
| Dedza           | 646292                   | 215431                                             | 43086             | 26929              | 15388          | 4859   | 1206 | 0                |
| Ntcheu          | 493207                   | 164402                                             | 41101             | 29012              | 15413          | 4404   | 1111 | 0                |
| Balaka          | 324896                   | n/a                                                | 29536             | 29536              | 14768          | 3531   | 1208 | 0                |
| Mangochi        | 778338                   | 129723                                             | 31134             | 19458              | 10963          | 5155   | 1390 | 0                |
| Machinga        | 440492                   | 440492                                             | 24472             | 17620              | 10011          | 4117   | 1181 | 0                |
| Zomba           | 723020                   | 51644                                              | 13642             | 21910              | 7230           | 2402   | 1126 | 0                |
| Phalombe        | 311250                   | 311250                                             | 51875             | 19453              | 13533          | 5275   | 1161 | 0                |
| Mulanje         | 557138                   | 557138                                             | 30952             | 15476              | 10130          | 3618   | 1175 | 0                |
| Thyolo          | 592630                   | 84661                                              | 14816             | 17430              | 7316           | 3186   | 1164 | 0                |
| Blantyre        | 1158047                  | 13786                                              | 12587             | 20679              | 4992           | 1631   | 1626 | 0                |
| Mwanza/Neno     | 179019                   | 89510                                              | 9422              | 8137               | 4163           | 2356   | 1126 | 0                |
| Chiradzulu      | 299738                   | 299738                                             | 21410             | 21410              | 10336          | 2939   | 1254 | 0                |
| Chikwawa        | 463888                   | 463888                                             | 25772             | 27288              | 12886          | 5212   | 1296 | 0                |
| Nsanje          | 239972                   | n/a                                                | 23997             | 17141              | 9999           | 3000   | 1270 | 0                |

\* All clinicians is the summation of physicians, clinical assistants and medical assistants

**\*\*Workforce was defined as a summation of Physicians, Nurses, Clinical Officers and Medical Assistants (adapted from WHO) and is computed per 1000 population**

### **6.3.2 Nurse Population Ratio**

At national level, the Nurse Population ratio was 1:2964 and was highest in the Central Region (1:3502 ) followed by the Southern Region at 1:2880 (Table 40 above). In urban areas, the Nurse Population ratio 1:1141 while in the rural areas the ratio was 1:3952. Across the Zones, the highest Nurse Population ratio was observed in the Central East Zone at 1:3837. Across the districts, the highest Nurse Population was registered in Kasungu (1:6567) followed by Phalombe (1:5275), Chikwawa (1:5212) and Mangochi (1:5155). See Table 39 above.

### **6.3.3 Clinical Officer/Medical Assistant Population Ratio**

Overall, the population to Clinical Officer Population ratio was estimated at 1:18893 and was highest in the Central Region (1:22184) followed by the Southern Region at 1:19143. At Zone level, the highest ratio was registered in the Central East Zone followed by the South East Zone. Across the Districts Kasungu, Ntchisi, Dedza, Phalombe, Mulanje and Ntcheu had the highest Clinical Officer Population ratios. A similar trend was also observed for the Medical Assistants (Table 39 above).

### **6.3.4 HSA Population Ratio**

The national target is 1 HSA per 1000 people. Bearing this in mind, then only Rumphi has achieved this target and Districts such as Nkhatabay, Likoma, Nkhatakota, Ntchisi, Ntcheu, Machinga, Zomba, Phalombe, Thyolo and Mwanza/Neno are close to achieving the target whereas districts such as Lilongwe, Mzimba, Mangochi, Chiradzulu, Blantyre and Nsanje have the highest has to Population ratios. Details are presented in Table 40 above.

### **6.3.5 Health workforce : Population Ratio**

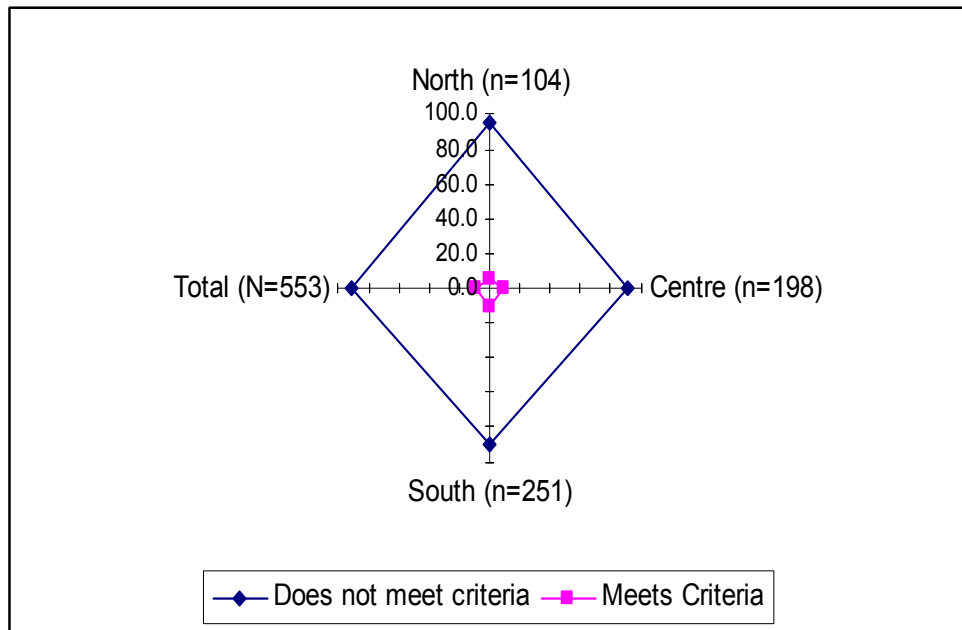
The definition of Health Workforce was adapted from WHO (2006) as a summation of Physicians, Nurses, Clinical Officers and Medical Assistants in a District or Zone and is computed for 1000 Population. The recommended threshold is 2.3 health workforce per 1000 population. It would appear that Malawi is far from achieving the threshold as recommended by the WHO because the national estimate was 0.5 health workforce per 1000 people.

## **6.4 Proportion of primary health facilities meeting minimum staff norms**

### **6.4.1 Disaggregated by Region**

As per MoH policy relating to EHP, a health facility is deemed to have minimum staff norms if it has at least two clinicians (doctors, clinical officers or medical assistants), 2 nurses/midwives and at least 1 environmental health officer or health assistant. The results of the census on the proportion of public (Government and CHAM) primary health facilities that meet this criteria are presented in Figure 9 below. At national level, only 9% of the 553 primary level facilities belonging to government and CHAM have minimum staff norms, 5% of the 104 facilities in the Northern Region, 10% of the 198 facilities in the Central Region and 11% of the 251 facilities in the Southern Region.

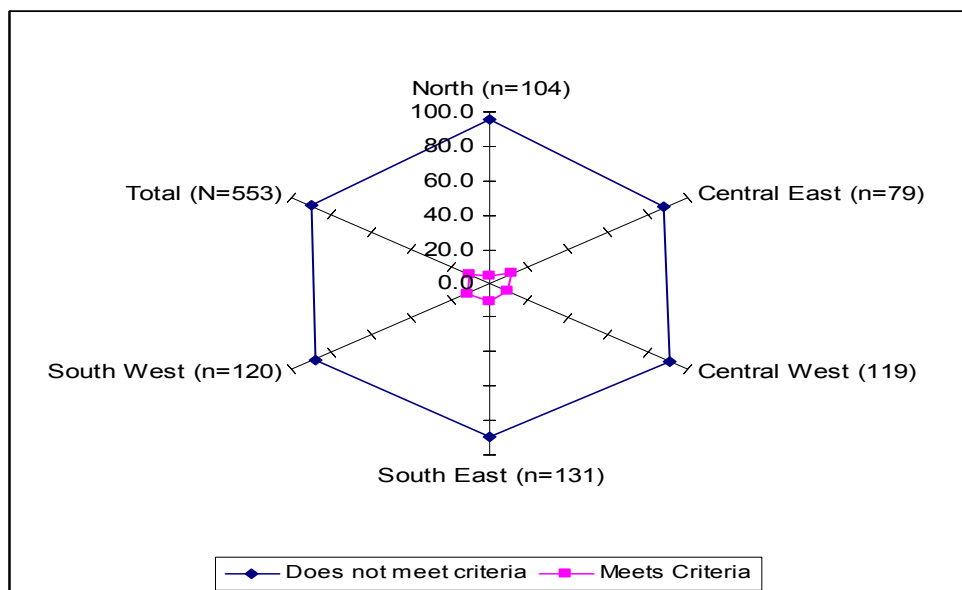
Figure 9: Proportion of facilities meeting minimum staffing norms disaggregated by Region



#### 6.4.2 Disaggregated by Zone

Across the zones, the North Zone has the lowest proportion of facilities that have the minimum staff norms (5%) compared to 11% in the Central East Zone, 8% in the Central West Zone, 11% in the South East Zone and 12% in the South West Zone. This information is presented in Figure 10 below.

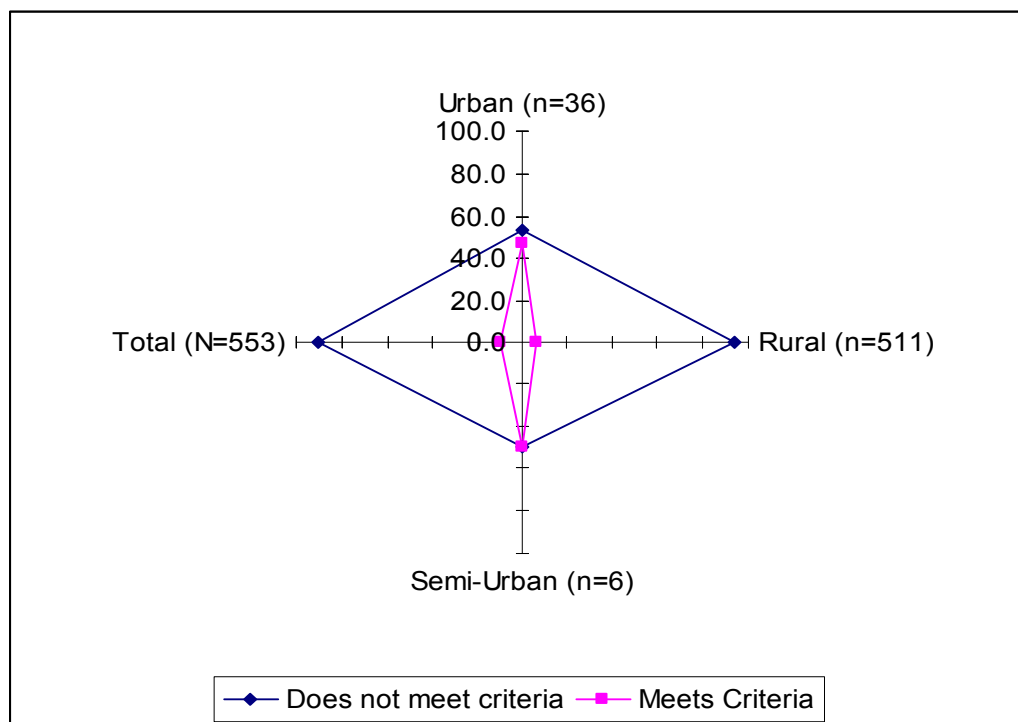
Figure 10: Proportion of facilities meeting minimum staffing norms disaggregated by Region



### 6.4.3 Disaggregated by Location

Nearly half (47%) of the 36 public primary care facilities in urban areas meet the minimum staffing norms compared to only 6% in rural areas (Figure 11). There were only 6 public primary care facilities in semi-urban areas and three of these meet the minimum staffing norms (50%).

Figure 11: Proportion of facilities meeting minimum staffing norms disaggregated by Location



### 6.4.4 Disaggregated by District

The proportion of facilities that meet or do not meet the minimum staffing norms at district level were as shown in Table 40 below. Some districts did not have any facility that meets the criteria and these were Neno, Mwanza, Chikwawa and Nsanje in South West Zone; Mulanje in South East Zone; Ntcheu in Central West Zone; Ntchisi and Kasungu in Central East Zone; and, Likoma and Nkhatabay Districts in the North Zone. Blantyre District had the highest proportion of facilities that meet the criteria for minimum staffing norms (at 39%).

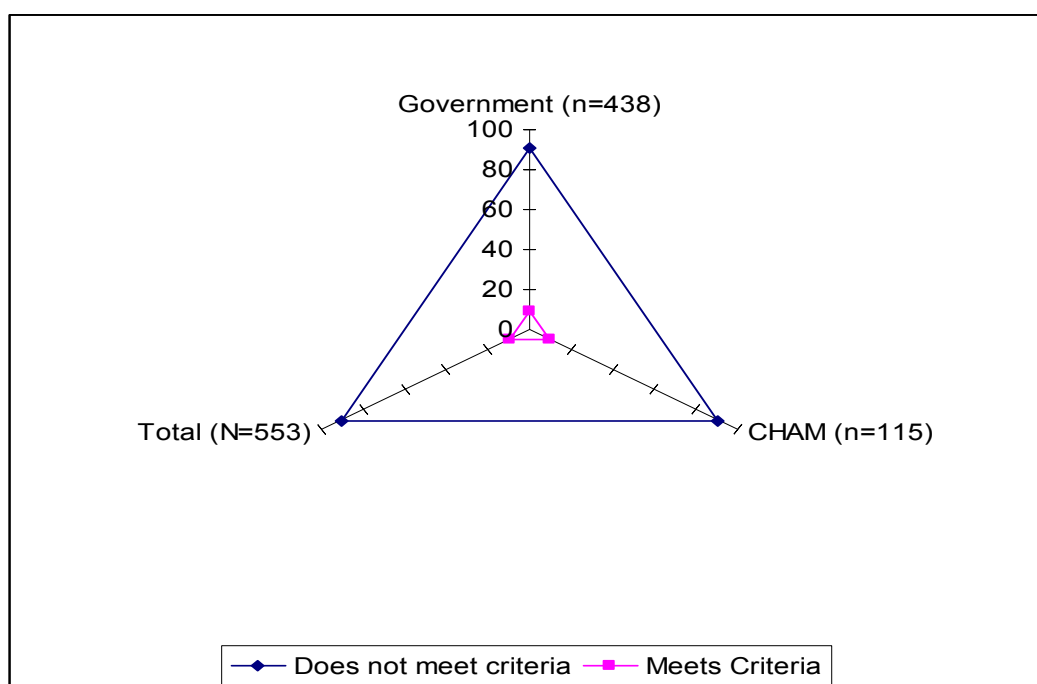
Table 40: Proportion of facilities meeting minimum staffing norms disaggregated by District

|                  | % that do not meet criteria | % that meets Criteria | N   |
|------------------|-----------------------------|-----------------------|-----|
| Malawi           | 90.6                        | 9.4                   | 553 |
| <b>Districts</b> |                             |                       |     |
| Chitipa          | 85.7                        | 14.3                  | 7   |
| Karonga          | 100.0                       | 0.0                   | 12  |
| Rumphi           | 93.3                        | 6.7                   | 15  |
| Mzimba           | 94.0                        | 6.0                   | 50  |
| Nkhatabay        | 100.0                       | 0.0                   | 17  |
| Likoma           | 100.0                       | 0.0                   | 3   |
| Kasungu          | 100.0                       | 0.0                   | 21  |
| Nkhotakota       | 82.4                        | 17.6                  | 17  |
| Ntchisi          | 100.0                       | 0.0                   | 11  |
| Mchinji          | 90.0                        | 10.0                  | 10  |
| Salima           | 78.6                        | 21.4                  | 14  |
| Dowa             | 81.3                        | 18.8                  | 16  |
| Lilongwe         | 83.0                        | 17.0                  | 47  |
| Dedza            | 96.4                        | 3.6                   | 28  |
| Ntcheu           | 100.0                       | 0.0                   | 34  |
| Balaka           | 90.9                        | 9.1                   | 11  |
| Mangochi         | 91.2                        | 8.8                   | 34  |
| Machinga         | 95.5                        | 4.5                   | 22  |
| Zomba            | 79.4                        | 20.6                  | 34  |
| Phalombe         | 81.8                        | 18.2                  | 11  |
| Mulanje          | 100.0                       | 0.0                   | 19  |
| Thyolo           | 97.1                        | 2.9                   | 34  |
| Blantyre         | 60.7                        | 39.3                  | 28  |
| Mwanza           | 100.0                       | 0.0                   | 3   |
| Chiradzulu       | 83.3                        | 16.7                  | 12  |
| Chikwawa         | 100.0                       | 0.0                   | 22  |
| Nsanje           | 100.0                       | 0.0                   | 13  |
| Neno             | 100.0                       | 0.0                   | 8   |

#### 6.4.5 Disaggregated by ownership status of facilities

Figure 12 shows the proportion of public primary health facilities that meet the minimum staff norms disaggregated by ownership status (government or CHAM). Of the 438 primary level facilities that belong to government, only 9% have the minimum staff norms, 10% of the 10% of the 115 CHAM facilities norms.

Figure 12: % of primary health facilities that have minimum staff norms disaggregated by ownership status





## 7.0 DEMOGRAPHIC AND SOCIO-ECONOMIC CHARACTERISTICS OF THE STAFF

### 7.1 Age and sex composition

Table 41 below shows the age and sex distribution of the staff belonging to various categories in the health sector. Information on date of birth was not collected for 7% (n=2494) of the staff either because they refused to disclose their date of birth (n=2412) or they were not available for the interviews (n=82) and no body could provide this information on their behalf. Of the 31272 health workers who provided their date of birth, 63% were aged 40 years or less, 19% were aged between 40 and 50 years whereas 9% were aged between 50 and 60 years. The findings of the census therefore show that 2% of the staff in the sector are about to retire because they have reached the retirement age of 60 years

Table 41: Age and sex distribution of staff in the health sector (%)

| Professions              | Age groups    |                |                 |                 |              | DoB*          | N     |
|--------------------------|---------------|----------------|-----------------|-----------------|--------------|---------------|-------|
|                          | >=30<br>Years | 30-40<br>Years | >40-50<br>Years | >50-60<br>Years | >60<br>Years | Not disclosed |       |
| All Staff                | 30.7          | 32.7           | 18.6            | 8.6             | 2.3          | 7.1           | 33766 |
| Physicians               | 13.7          | 26.2           | 16.5            | 7.3             | 6.0          | 30.2          | 248   |
| Clinical Officers        | 25.1          | 35.1           | 15.2            | 7.4             | 6.7          | 10.5          | 698   |
| Medical Assistants       | 45.1          | 20.3           | 12.2            | 7.0             | 10.8         | 4.5           | 711   |
| Nurses                   | 27.6          | 24.9           | 17.7            | 14.7            | 5.2          | 9.9           | 4450  |
| Technicians              | 30.5          | 33.5           | 19.4            | 6.5             | 2.4          | 7.7           | 1314  |
| Lecturers/Researchers    | 11.8          | 24.5           | 14.7            | 4.9             | 4.9          | 39.2          | 102   |
| HSA's                    | 47.8          | 37.5           | 8.9             | 1.8             | 0.1          | 3.8           | 10046 |
| Hospital Attendants      | 23.0          | 33.2           | 26.4            | 11.2            | 1.2          | 4.9           | 5681  |
| Public Health Workers    | 21.2          | 31.9           | 26.1            | 9.5             | 2.8          | 8.6           | 326   |
| Semi-skilled Workers     | 24.4          | 23.3           | 24.1            | 16.0            | 4.3          | 7.9           | 369   |
| Management/Support Staff | 19.9          | 32.4           | 24.7            | 11.6            | 2.7          | 8.7           | 9739  |
| Not Cited                | 0.0           | 0.0            | 0.0             | 0.0             | 0.0          | 100.0         | 82    |

\* DoB stands for Date of Birth

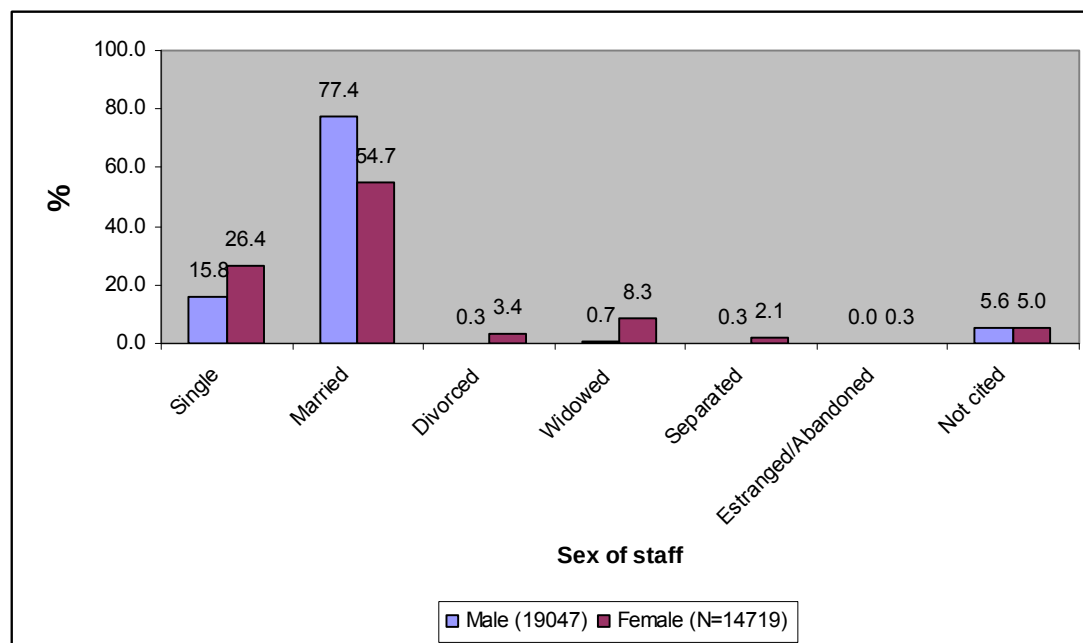
Among the Physicians, 6% were over 60 years of age, 7% were aged between 50 and 60 years and 17% were aged between 40-50 years, 26% were aged between 30 and 40 years while 14% had not reached 30 years or were just at 30. The group of Medical Assistants had the highest proportion (11%) of staff that had reached retirement age followed by Clinical Officers (7%) and Physicians (6%). Details for the rest of the categories of health workers are presented in Table 41 above.

## 7.2 Marital status of staff disaggregated by sex of staff

### 7.2.1 Overall

Figure 13 below shows the marital status of staff working in the health sector in Malawi disaggregated by sex of the staff. Female staff were more likely to be single (26% versus 16%), divorced (3% versus <1%), widowed (8% versus 1%) separated (2% versus <1%) and estranged or abandoned (0.3% versus 0%).

Figure 13: Marital status of the staff working in the health sector



### 7.2.2 Disaggregated by profession

Table 42 below shows the marital status of the staff in the health sector disaggregated by categories of staff. Overall, 68% of the staff in the health sector were married at the time of the census, 20% were single, 2% had been divorced and 4% were widowed. Nurses and Hospital Attendants had the highest proportions of staff who were widowed (9% and 8%, respectively). The proportion of divorcees was also higher among hospitals attendants (3%) and Nurses (3%).

Table 42: Marital status of the health workers disaggregated by gender

| Professions                       | Sing<br>le | Marri<br>ed | Divorc<br>ed | Widow<br>ed | Separat<br>ed | Estrange<br>d/<br>Abandon<br>ed | Not<br>cite<br>d |
|-----------------------------------|------------|-------------|--------------|-------------|---------------|---------------------------------|------------------|
| All Staff (N=33766)               | 20.4       | 67.5        | 1.7          | 4.0         | 1.1           | 0.1                             | 5.3              |
| Physicians (N=248)                | 22.2       | 51.2        | 0.4          | 0.0         | 0.0           | 0.0                             | 26.2             |
| Clinical Officers (N=698)         | 22.2       | 69.1        | 0.3          | 1.0         | 0.1           | 0.0                             | 7.3              |
| Medical Assistants (N=711)        | 34.2       | 61.6        | 0.6          | 0.8         | 0.0           | 0.0                             | 2.8              |
| Nurses (N=4450)                   | 23.6       | 56.8        | 2.5          | 8.7         | 1.0           | 0.1                             | 7.4              |
| Technicians (N=1314)              | 23.7       | 64.6        | 1.1          | 2.4         | 0.8           | 0.0                             | 7.3              |
| Lecturers/Researchers (N=102)     | 14.7       | 50.0        | 0.0          | 5.9         | 0.0           | 0.0                             | 29.4             |
| HSAs (N=10046)                    | 28.5       | 65.5        | 1.1          | 1.5         | 0.8           | 0.1                             | 2.4              |
| Hospital Attendants (N=5681)      | 15.8       | 66.3        | 3.4          | 8.0         | 2.4           | 0.3                             | 3.7              |
| Public Health Workers (N=326)     | 17.5       | 73.3        | 0.0          | 1.5         | 0.3           | 0.0                             | 7.4              |
| Semi-skilled Workers (N=369)      | 24.1       | 51.8        | 3.8          | 11.1        | 1.6           | 0.5                             | 7.0              |
| Management/Support Staff (N=9739) | 11.8       | 77.4        | 1.1          | 2.6         | 0.7           | 0.1                             | 6.4              |
|                                   |            |             |              |             |               |                                 | 100.             |
| Not Cited (N=82)                  | 0.0        | 0.0         | 0.0          | 0.0         | 0.0           | 0.0                             | 0                |

### 7.3 Highest level of education of the health workers in Malawi

Table 43 below shows the highest educational qualifications of the health workers in Malawi disaggregated by professional categories. As may be observed from the Table, less than a quarter (23%) of the health workers in Malawi have educational qualifications beyond the Malawi Schools Certificate of Education (MSCE), 19% have the Primary School Leaving Certificate (PSLC), 33% have the Junior Certificate of Education (JCE). As expected, most of the clinicians, nurses and other health professionals have higher educational qualifications beyond the MSCE, obviously pertaining to their professions.

Table 43: Educational levels of the health workers disaggregated by category of staff

|                               | Educational Qualification |      |      |                    |         |                     |                     |             |
|-------------------------------|---------------------------|------|------|--------------------|---------|---------------------|---------------------|-------------|
|                               | PSLC                      | JC   | MSCE | PS*<br>Certificate | Diploma | Bachelors<br>Degree | Masters<br>or above | Not<br>cite |
| All Staff (N=33766)           | 19.0                      | 32.5 | 24.5 | 8.0                | 12.9    | 1.5                 | 1.0                 | 0           |
| Physicians (N=248)            | 0.0                       | 0.0  | 0.0  | 0.0                | 0.0     | 23.0                | 63.3                | 13          |
| Clinical Officers (N=698)     | 0.0                       | 0.6  | 1.7  | 0.0                | 94.1    | 2.3                 | 0.6                 | 0           |
| Medical Assistants (N=711)    | 0.1                       | 0.3  | 1.0  | 95.9               | 1.5     | 0.6                 | 0.3                 | 0           |
| Nurses (N=4450)               | 0.1                       | 0.9  | 9.7  | 20.6               | 63.6    | 3.9                 | 0.4                 | 0           |
| Technicians (N=1314)          | 5.7                       | 16.4 | 39.0 | 6.8                | 28.9    | 1.8                 | 1.1                 | 0           |
| Lecturers/Researchers (N=102) | 1.0                       | 2.9  | 8.8  | 4.9                | 3.9     | 28.4                | 50.0                | 0           |
| HSAs (N=10046)                | 3.9                       | 48.9 | 46.0 | 1.2                | 0.0     | 0.0                 | 0.0                 | 0           |
| Hospital Attendants (N=5681)  | 41.4                      | 45.9 | 11.1 | 1.7                | 0.0     | 0.0                 | 0.0                 | 0           |
| Public Health Workers (N=326) | 2.1                       | 2.8  | 36.8 | 8.9                | 31.0    | 15.6                | 2.5                 | 0           |

|                                   |      |      |      |     |     |     |     |     |
|-----------------------------------|------|------|------|-----|-----|-----|-----|-----|
| Semi-skilled Workers (N=369)      | 22.5 | 48.5 | 17.9 | 6.2 | 1.4 | 2.4 | 0.8 | 0   |
| Management/Support Staff (N=9739) | 35.8 | 30.8 | 19.3 | 7.5 | 3.8 | 1.4 | 0.8 | 0   |
| Not Cited (N=82)                  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 | 100 |

**\* PS Certificate stands for 'Post Secondary Certificate'**

## 7.4 Housing Conditions, Transport and Other Amenities

The Census collected information on housing conditions for the staff in the health sector with regard to ownership status of their residential houses, access to electricity and running water inside the houses. The results on these issues are discussed in this section.

### 7.4.1 Disaggregated by Region, Zone, location of work and District

The results of the census show that 47% of health workers live in rented houses while 23% stay in their own houses and 18% live in institutional houses (Table 44). When disaggregated in terms of location, the results show that 22% of the staff working in rural areas live in institutional houses, 18% of the staff working in semi-urban areas and 8% of those working in urban areas. The proportion of staff that live in their own houses is higher among those working in urban and semi-urban areas (27% in both cases) compared to those working in rural areas (20%). The results also do not show major differences among male and female staff in the status of house ownership (not shown in the Table).

Table 44: Ownership of houses where health workers live disaggregated by Region, Zone, Location of work and District

|                         | N     | Staff<br>Quarters | Own<br>house | Relative's/<br>Friend's house | Rented<br>house | No<br>information |
|-------------------------|-------|-------------------|--------------|-------------------------------|-----------------|-------------------|
| All Staff               | 33766 | 17.5              | 23.2         | 2.6                           | 47.2            | 9.5               |
| <b>Zone</b>             |       |                   |              |                               |                 |                   |
| North                   | 5315  | 22.8              | 28.6         | 3.1                           | 34.9            | 10.6              |
| Centre                  | 13082 | 16.5              | 21.0         | 2.1                           | 49.0            | 11.4              |
| South                   | 15369 | 16.5              | 23.1         | 2.9                           | 50.0            | 7.6               |
| <b>Zone</b>             |       |                   |              |                               |                 |                   |
| North                   | 5315  | 22.8              | 28.6         | 3.1                           | 34.9            | 10.6              |
| Central East            | 4618  | 18.4              | 20.0         | 2.0                           | 53.3            | 6.3               |
| Central West            | 8464  | 15.5              | 21.6         | 2.2                           | 46.6            | 14.1              |
| South East              | 7334  | 18.9              | 20.6         | 2.4                           | 51.4            | 6.7               |
| South West              | 8035  | 14.2              | 25.4         | 3.3                           | 48.7            | 8.5               |
| <b>Location of work</b> |       |                   |              |                               |                 |                   |
| Urban                   | 8224  | 7.6               | 27.0         | 3.5                           | 44.6            | 17.2              |
| Rural                   | 17789 | 21.7              | 19.7         | 2.2                           | 49.2            | 7.2               |
| Semi-Urban              | 7753  | 18.2              | 27.1         | 2.6                           | 45.3            | 6.8               |
| <b>District</b>         |       |                   |              |                               |                 |                   |
| Chitipa                 | 414   | 25.6              | 35.0         | 5.1                           | 24.6            | 9.7               |
| Karonga                 | 677   | 25.3              | 22.6         | 4.3                           | 36.8            | 11.1              |
| Rumphi                  | 724   | 26.4              | 25.0         | 1.9                           | 38.7            | 8.0               |
| Mzimba                  | 2902  | 20.9              | 29.0         | 2.4                           | 36.0            | 11.8              |
| Nkhatabay               | 547   | 23.6              | 31.3         | 4.8                           | 32.4            | 8.0               |
| Likoma                  | 51    | 11.8              | 58.8         | 11.8                          | 7.8             | 9.8               |
| Kasungu                 | 1026  | 16.3              | 16.4         | 2.6                           | 51.1            | 13.6              |
| Nkhotakota              | 941   | 24.5              | 25.6         | 1.9                           | 45.1            | 2.9               |
| Ntchisi                 | 492   | 20.9              | 17.5         | 1.2                           | 55.5            | 4.9               |
| Mchinji                 | 976   | 22.5              | 21.7         | 1.4                           | 49.3            | 5.0               |
| Salima                  | 932   | 15.1              | 15.0         | 1.4                           | 62.9            | 5.6               |
| Dowa                    | 1227  | 17.0              | 23.6         | 2.4                           | 53.4            | 3.7               |
| Lilongwe                | 5140  | 11.0              | 23.4         | 2.8                           | 42.9            | 19.8              |
| Dedza                   | 1233  | 22.8              | 16.6         | 0.8                           | 55.5            | 4.3               |
| Ntcheu                  | 1115  | 21.7              | 18.7         | 1.6                           | 51.4            | 6.6               |
| Balaka                  | 719   | 16.3              | 17.9         | 1.8                           | 59.8            | 4.2               |
| Mangochi                | 1453  | 22.2              | 16.5         | 2.2                           | 52.9            | 6.2               |
| Machinga                | 963   | 17.2              | 22.0         | 3.7                           | 51.6            | 5.4               |
| Zomba                   | 2297  | 14.1              | 23.5         | 2.7                           | 51.0            | 8.8               |
| Phalombe                | 679   | 17.5              | 20.8         | 0.7                           | 54.9            | 6.0               |
| Mulanje                 | 1223  | 28.0              | 20.1         | 2.5                           | 43.3            | 6.2               |
| Thyolo                  | 1504  | 20.3              | 20.7         | 3.0                           | 47.2            | 8.8               |
| Blantyre                | 3640  | 6.5               | 25.5         | 3.6                           | 52.4            | 11.9              |
| Mwanza                  | 318   | 18.9              | 26.1         | 1.3                           | 50.6            | 3.1               |
| Chiradzulu              | 781   | 15.7              | 32.0         | 3.3                           | 45.1            | 3.8               |
| Chikwawa                | 887   | 22.3              | 20.2         | 3.7                           | 49.9            | 3.8               |
| Nsanje                  | 652   | 20.6              | 34.8         | 3.2                           | 38.8            | 2.6               |
| Neno                    | 253   | 32.8              | 23.7         | 2.0                           | 32.4            | 9.1               |

#### 7.4.2 Disaggregated by level of care provided by their facilities, ownership status and profession of staff

Table 45 below shows the ownership status of houses where staff working in the sector were living at the time of the census disaggregated by level of care being provided by their facilities, ownership of the facilities and profession of the staff. Regardless of the level of care provided by their facilities and ownership status of the facilities, the results of the census show that over 35% of the staff belonging to each category live in rented houses and about 17-31% live in their own houses.

*Table 45: Ownership of houses where health workers live disaggregated by level care provided by their facility, ownership status of their facilities and profession of the staff*

|                            | N   | Staff Quarters | Own house | Relative's/<br>Friend's house | Rented house | No information |
|----------------------------|-----|----------------|-----------|-------------------------------|--------------|----------------|
| All Staff                  | 337 |                |           |                               |              |                |
|                            | 66  | 17.5           | 23.2      | 2.6                           | 47.2         | 9.5            |
| <b>Level of care</b>       |     |                |           |                               |              |                |
| Primary                    | 150 |                |           |                               |              |                |
|                            | 89  | 19.1           | 17.0      | 2.2                           | 53.7         | 7.9            |
| Secondary                  | 132 |                |           |                               |              |                |
|                            | 58  | 19.5           | 28.1      | 3.0                           | 41.1         | 8.3            |
| Tertiary                   | 295 |                |           |                               |              |                |
|                            | 3   | 8.1            | 30.4      | 3.3                           | 45.3         | 12.8           |
| Others                     | 246 |                |           |                               |              |                |
|                            | 6   | 7.4            | 25.3      | 2.4                           | 42.5         | 22.5           |
| <b>Ownership status</b>    |     |                |           |                               |              |                |
| Government                 | 217 |                |           |                               |              |                |
|                            | 54  | 17.1           | 20.0      | 2.3                           | 52.2         | 8.4            |
| CHAM                       | 839 |                |           |                               |              |                |
|                            | 9   | 21.5           | 31.2      | 2.9                           | 36.5         | 7.9            |
| NGO                        | 110 |                |           |                               |              |                |
|                            | 4   | 5.7            | 17.7      | 2.9                           | 52.4         | 21.4           |
| Private for profit         | 170 |                |           |                               |              |                |
| Statutory                  | 5   | 7.2            | 28.7      | 5.3                           | 38.9         | 19.9           |
| Organisation               | 506 | 5.9            | 24.1      | 2.2                           | 40.5         | 27.3           |
| Company                    | 298 | 52.0           | 17.1      | 1.3                           | 22.8         | 6.7            |
| <b>Profession of staff</b> |     |                |           |                               |              |                |
| Physicians                 | 248 | 22.2           | 10.9      | 0.8                           | 29.8         | 36.3           |
| Clinical Officers          | 698 | 45.4           | 13.2      | 0.6                           | 27.8         | 13.0           |
| Medical Assistants         | 711 | 64.6           | 10.0      | 1.0                           | 16.2         | 8.3            |
| Nurses                     | 445 |                |           |                               |              |                |
|                            | 0   | 37.1           | 17.0      | 2.1                           | 29.0         | 14.8           |
| Technicians                | 131 |                |           |                               |              |                |
|                            | 4   | 31.7           | 17.0      | 2.1                           | 38.1         | 11.1           |
| Lecturers/Researchers      | 102 | 22.5           | 8.8       | 1.0                           | 26.5         | 41.2           |
| HSAs                       | 100 |                |           |                               |              |                |
|                            | 46  | 9.2            | 9.7       | 3.3                           | 71.6         | 6.2            |
| Hospital Attendants        | 568 |                |           |                               |              |                |
| Public Health              | 1   | 14.6           | 34.6      | 2.6                           | 41.4         | 6.7            |
| Workers                    | 326 | 30.7           | 10.1      | 1.2                           | 46.6         | 11.3           |

|                          |     |      |      |      |      |       |
|--------------------------|-----|------|------|------|------|-------|
| Semi-skilled<br>Workers  | 369 | 27.6 | 23.0 | 1.9  | 34.7 | 12.7  |
| Management/Support Staff | 973 | 9    | 10.4 | 36.8 | 2.7  | 40.2  |
| Not Cited                | 82  | 0.0  | 0.0  | 0.0  | 0.0  | 100.0 |

The results of the census also show that the majority of HSAs were living in rented houses (71%) and this was the highest proportion recorded within same category across all the other categories. The results of the census further show that the majority (65%) of Medical Assistants were living in institutional houses (Table 45 above).

## 7.5 Access to electricity

### 7.5.1 Disaggregated by Region, Zone, Location of work and District

All staff were asked to state if they had electricity inside their houses. The findings on this are presented in Table 46 below. As may be observed, only 41% of health workers live in houses that have electricity and as expected, access to electricity is higher in urban areas (73%) and semi-urban areas (49%) when compared to rural areas (23%). Across the zones, proportionately more health workers in the Central East Zone do not have electricity in their homes (71%) compared to the other zones. There are minor differences in the proportion of health workers that have access to electricity when region of residence and/or work is the separating variable.

Table 46: Proportion of health workers that have access to electricity in their houses disaggregated by Region, Zone, Location of work and District

|                         | N     | Do you have electricity inside your house? |      |                |
|-------------------------|-------|--------------------------------------------|------|----------------|
|                         |       | Yes                                        | No   | No information |
| All Staff               | 33766 | 41.0                                       | 58.5 | 0.5            |
| <b>Region</b>           |       |                                            |      |                |
| North                   | 5315  | 41.4                                       | 58.2 | 0.5            |
| Centre                  | 13082 | 38.2                                       | 61.3 | 0.5            |
| South                   | 15369 | 43.3                                       | 56.3 | 0.4            |
| <b>Zone</b>             |       |                                            |      |                |
| North                   | 5315  | 41.4                                       | 58.2 | 0.5            |
| Central East            | 4618  | 29.2                                       | 70.7 | 0.1            |
| Central West            | 8464  | 43.1                                       | 56.2 | 0.7            |
| South East              | 7334  | 37.2                                       | 62.7 | 0.1            |
| South West              | 8035  | 48.8                                       | 50.4 | 0.8            |
| <b>Location of Work</b> |       |                                            |      |                |
| Urban                   | 8224  | 73.0                                       | 25.8 | 1.2            |
| Rural                   | 17789 | 22.7                                       | 77.1 | 0.2            |
| Semi-Urban              | 7753  | 49.1                                       | 50.6 | 0.2            |
| <b>District</b>         |       |                                            |      |                |
| Chitipa                 | 414   | 23.2                                       | 76.8 | 0.0            |
| Karonga                 | 677   | 33.4                                       | 66.2 | 0.4            |
| Rumphi                  | 724   | 35.4                                       | 64.4 | 0.3            |
| Mzimba                  | 2902  | 48.4                                       | 51.0 | 0.5            |
| Nkhatabay               | 547   | 35.6                                       | 64.0 | 0.4            |
| Likoma                  | 51    | 39.2                                       | 56.9 | 3.9            |
| Kasungu                 | 1026  | 24.5                                       | 75.4 | 0.1            |
| Nkhotakota              | 941   | 36.1                                       | 63.8 | 0.1            |
| Ntchisi                 | 492   | 25.4                                       | 74.6 | 0.0            |
| Mchinji                 | 976   | 28.4                                       | 70.6 | 1.0            |
| Salima                  | 932   | 28.3                                       | 71.7 | 0.0            |
| Dowa                    | 1227  | 30.2                                       | 69.8 | 0.1            |
| Lilongwe                | 5140  | 54.3                                       | 44.7 | 1.0            |
| Dedza                   | 1233  | 26.8                                       | 73.2 | 0.0            |
| Ntcheu                  | 1115  | 21.9                                       | 78.0 | 0.1            |
| Balaka                  | 719   | 42.3                                       | 57.6 | 0.1            |



|            |      |      |      |     |
|------------|------|------|------|-----|
| Mangochi   | 1453 | 29.1 | 70.8 | 0.1 |
| Machinga   | 963  | 33.0 | 66.9 | 0.1 |
| Zomba      | 2297 | 46.3 | 53.6 | 0.1 |
| Phalombe   | 679  | 23.9 | 76.1 | 0.0 |
| Mulanje    | 1223 | 37.6 | 62.4 | 0.0 |
| Thyolo     | 1504 | 32.6 | 66.6 | 0.7 |
| Blantyre   | 3640 | 67.0 | 31.6 | 1.4 |
| Mwanza     | 318  | 52.2 | 47.5 | 0.3 |
| Chiradzulu | 781  | 33.2 | 66.8 | 0.0 |
| Chikwawa   | 887  | 32.0 | 68.0 | 0.0 |
| Nsanje     | 652  | 34.2 | 65.8 | 0.0 |
| Neno       | 253  | 23.3 | 76.7 | 0.0 |

### 7.5.2 Disaggregated by level of facility and ownership status of the facility

Table 47 below shows the proportion of health workers that have access to electricity inside their homes disaggregated by level of care of their facilities and ownership status of their facilities. Electricity is available for only 27% of the health workers in primary care facilities, 44% of the workers in facilities that provide secondary care and 68% of those working in tertiary level care facilities.

Proportionately more staff working in facilities operated by NGOs (67%), statutory organisations (80%) and the private sector (67%) have access to electricity compared to health workers working for government and CHAM. Details are presented in Table 47 below.

*Table 47: Access to electricity by the staff disaggregated by level of facility and ownership status of the facility*

|                                       | Do you have electricity inside your house? |      |      |                |
|---------------------------------------|--------------------------------------------|------|------|----------------|
|                                       | N                                          | Yes  | No   | No information |
| All Staff                             | 33766                                      | 41.0 | 58.5 | 0.5            |
| <b>Level of Care</b>                  |                                            |      |      |                |
| Primary                               | 15089                                      | 27.4 | 72.3 | 0.3            |
| Secondary                             | 13258                                      | 44.3 | 55.4 | 0.3            |
| Tertiary                              | 2953                                       | 67.5 | 31.8 | 0.7            |
| Others                                | 2466                                       | 74.9 | 22.8 | 2.3            |
| <b>Ownership status of facilities</b> |                                            |      |      |                |
| Government                            | 21754                                      | 39.7 | 59.9 | 0.3            |
| CHAM                                  | 8399                                       | 33.4 | 66.5 | 0.1            |
| NGO                                   | 1104                                       | 66.5 | 31.8 | 1.7            |
| Private for profit                    | 1705                                       | 67.0 | 32.1 | 0.9            |
| Statutory Organisation                | 506                                        | 80.0 | 13.0 | 6.9            |
| Company                               | 298                                        | 41.6 | 58.1 | 0.3            |

### 7.5.3 Disaggregated by category of staff

Table 48 below shows presents findings on the proportion of staff belonging to various categories in the health sector. As the findings show, the majority of HSAs (81%) and Hospital Attendants (74%) did not have electricity in their homes followed by semi-skilled workers (56%) and Health Management and Support Staff (59%).

Table 48: Access to electricity disaggregated by category of staff

|                          | N     | Do you have running water inside your house? |      |                |
|--------------------------|-------|----------------------------------------------|------|----------------|
|                          |       | Yes                                          | No   | No information |
| All Staff                | 33766 | 41.0                                         | 58.5 | 0.5            |
| <b>Category of Staff</b> |       |                                              |      |                |
| Physicians               | 248   | 83.9                                         | 7.3  | 8.9            |
| Clinical Officers        | 698   | 89.0                                         | 10.0 | 1.0            |
| Medical Assistants       | 711   | 65.5                                         | 34.3 | 0.1            |
| Nurses                   | 4450  | 81.3                                         | 18.4 | 0.3            |
| Technicians              | 1314  | 73.6                                         | 26.3 | 0.2            |
| Lecturers/Researchers    | 102   | 91.2                                         | 8.8  | 0.0            |
| HSAs                     | 10046 | 19.3                                         | 80.6 | 0.1            |
| Hospital Attendants      | 5681  | 26.2                                         | 73.8 | 0.0            |
| Public Health Workers    | 326   | 85.3                                         | 14.4 | 0.3            |
| Semi-skilled Workers     | 369   | 44.2                                         | 55.6 | 0.3            |
| Management/Support Staff | 9739  | 41.1                                         | 58.7 | 0.2            |
| Not Cited                | 82    | 0.0                                          | 0.0  | 100.0          |

## 7.6 Access to Water

### *Disaggregated by Region, Zone, Location of work, District*

Less than a third of the health workers (30%) had running water inside their homes. As expected, access to water inside homes was higher among health workers working in urban areas (47%) and semi-urban areas (44%) compared to those working in rural areas (16%). At zone level, the CEZ had the lowest proportion of health workers that had access to electricity (27%) compared to the other zones. Details are presented in Table 49 below.

Table 49: Access to water among health workers disaggregated by Region, Zone, Location of Work and District

|                         |       | Do you have running water inside your houses? |      |                |
|-------------------------|-------|-----------------------------------------------|------|----------------|
|                         |       | Yes                                           | No   | No information |
| All Staff               | 33766 | 30.0                                          | 62.7 | 7.3            |
| <b>Region</b>           |       |                                               |      |                |
| North                   | 5315  | 31.4                                          | 60.3 | 8.3            |
| Centre                  | 13082 | 28.5                                          | 62.9 | 8.7            |
| South                   | 15369 | 30.8                                          | 63.4 | 5.8            |
| <b>Zone</b>             |       |                                               |      |                |
| North                   | 5315  | 31.4                                          | 60.3 | 8.3            |
| Central East            | 4618  | 26.6                                          | 71.4 | 2.0            |
| Central West            | 8464  | 29.5                                          | 58.2 | 12.3           |
| South East              | 7334  | 28.9                                          | 66.5 | 4.6            |
| South West              | 8035  | 32.6                                          | 60.7 | 6.8            |
|                         | 33766 | 30.0                                          | 62.7 | 7.3            |
| <b>Location of work</b> |       |                                               |      |                |
| Urban                   | 8224  | 46.7                                          | 38.0 | 15.3           |
| Rural                   | 17789 | 16.0                                          | 79.3 | 4.7            |
| Semi-Urban              | 7753  | 44.4                                          | 50.9 | 4.7            |
| <b>District</b>         |       |                                               |      |                |
| Chitipa                 | 414   | 26.8                                          | 65.5 | 7.7            |
| Karonga                 | 677   | 32.1                                          | 58.8 | 9.2            |
| Rumphi                  | 724   | 20.3                                          | 72.7 | 7.0            |
| Mzimba                  | 2902  | 35.3                                          | 55.9 | 8.9            |
| Nkhatabay               | 547   | 29.4                                          | 64.2 | 6.4            |
| Likoma                  | 51    | 15.7                                          | 74.5 | 9.8            |
| Kasungu                 | 1026  | 22.0                                          | 77.0 | 1.0            |
| Nkhotakota              | 941   | 30.9                                          | 67.5 | 1.6            |
| Ntchisi                 | 492   | 25.8                                          | 73.0 | 1.2            |
| Mchinji                 | 976   | 24.9                                          | 72.2 | 2.9            |
| Salima                  | 932   | 25.8                                          | 70.9 | 3.3            |
| Dowa                    | 1227  | 28.0                                          | 69.5 | 2.5            |
| Lilongwe                | 5140  | 36.1                                          | 45.6 | 18.3           |
| Dedza                   | 1233  | 21.7                                          | 76.4 | 1.9            |
| Ntcheu                  | 1115  | 11.4                                          | 83.9 | 4.8            |
| Balaka                  | 719   | 31.6                                          | 64.5 | 3.9            |
| Mangochi                | 1453  | 24.7                                          | 70.2 | 5.1            |
| Machinga                | 963   | 25.9                                          | 70.5 | 3.6            |
| Zomba                   | 2297  | 32.7                                          | 60.4 | 7.0            |
| Phalombe                | 679   | 21.8                                          | 76.0 | 2.2            |
| Mulanje                 | 1223  | 31.4                                          | 66.2 | 2.4            |
| Thyolo                  | 1504  | 18.6                                          | 73.0 | 8.4            |
| Blantyre                | 3640  | 41.8                                          | 48.5 | 9.7            |
| Mwanza                  | 318   | 42.1                                          | 55.3 | 2.5            |
| Chiradzulu              | 781   | 24.5                                          | 75.3 | 0.3            |
| Chikwawa                | 887   | 30.9                                          | 65.8 | 3.3            |
| Nsanje                  | 652   | 26.5                                          | 72.1 | 1.4            |
| Neno                    | 253   | 17.4                                          | 76.3 | 6.3            |

### 7.6.2 Disaggregated by level of facility and ownership status of their facilities

Table 50 below shows the proportion of health workers that had access running water inside their homes disaggregated by level of care of their facilities and ownership status of their facilities. As the results show, running water Electricity was available for only 17% of the health workers in primary care facilities, 37% of the workers in facilities that provide secondary care and 46% of those working in tertiary level care facilities.

Proportionately more staff working in facilities operated by NGOs (48%) and statutory organisations (51%) had access to water compared to staff working for government, CHAM and the private sector. Details are presented in Table 50 below.

*Table 50: Access to running water disaggregated by level of facility and facility ownership status*

|                         | N     | Do you have running water inside your house? |      |                |
|-------------------------|-------|----------------------------------------------|------|----------------|
|                         |       | Yes                                          | No   | No information |
| All Staff               | 33766 | 41.0                                         | 58.5 | 0.5            |
| <b>Level of care</b>    |       |                                              |      |                |
| Primary                 | 15089 | 17.4                                         | 77.4 | 5.2            |
| Secondary               | 13258 | 37.2                                         | 56.4 | 6.4            |
| Tertiary                | 2953  | 45.9                                         | 43.6 | 10.5           |
| Others                  | 2466  | 49.3                                         | 29.9 | 20.8           |
| <b>Ownership status</b> |       |                                              |      |                |
| Government              | 21754 | 29.9                                         | 64.2 | 5.9            |
| CHAM                    | 8399  | 24.2                                         | 69.6 | 6.2            |
| NGO                     | 1104  | 48.1                                         | 31.9 | 20.0           |
| Private for profit      | 1705  | 39.0                                         | 43.1 | 17.9           |
| Statutory Organisation  | 506   | 51.2                                         | 23.3 | 25.5           |
| Company                 | 298   | 39.3                                         | 57.0 | 3.7            |

### 7.6.3 Disaggregated by category of Staff

Only 13% of the HSAs and 17% of Hospital Attendants lived in houses that had running water inside their houses. The proportions were higher among Physicians, Clinical Officers, Nurses and Public Health Workers. Details are presented in Table 51 below.

Table 51: Access to running water disaggregated by category of Staff

|                          | Do you have running water inside your houses? |      |      |                |
|--------------------------|-----------------------------------------------|------|------|----------------|
|                          | N                                             | Yes  | No   | No information |
| All Staff                | 33766                                         | 30.0 | 62.7 | 7.3            |
| Physicians               | 248                                           | 67.3 | 1.6  | 31.0           |
| Clinical Officers        | 698                                           | 79.1 | 10.2 | 10.7           |
| Medical Assistants       | 711                                           | 52.3 | 42.8 | 4.9            |
| Nurses                   | 4450                                          | 66.4 | 21.8 | 11.8           |
| Technicians              | 1314                                          | 56.2 | 35.3 | 8.4            |
| Lecturers/Researchers    | 102                                           | 57.8 | 1.0  | 41.2           |
| HSAs                     | 10046                                         | 12.8 | 83.9 | 3.3            |
| Hospital Attendants      | 5681                                          | 16.8 | 77.9 | 5.3            |
| Public Health Workers    | 326                                           | 68.4 | 21.8 | 9.8            |
| Semi-skilled Workers     | 369                                           | 28.5 | 62.3 | 9.2            |
| Management/Support Staff | 9739                                          | 27.8 | 63.8 | 8.4            |
| Not Cited                | 82                                            | 0.0  | 0.0  | 100.0          |

## 7.7 Distances to nearest all weather road, shopping centre, primary school and place of work

The census also collected information on distances that the health workers travel from their homes to the nearest all-weather road, nearest primary school, nearest shopping centre and to their places of work. The findings on this are discussed in this section.

### 7.7.1 All-weather road

Generally, the majority of the staff (57%) were living within 1 kilometre of an all-weather road and these were proportionately more in the Central Region (60%) followed by the Southern Region (56%). Apparently more health workers in urban areas travel relatively shorter distances to the nearest all-weather road compared with their counterparts in rural areas where 27% were living more than 6 km of a nearest all-weather road. At district level, more of the health workers in Balaka (62%) and Thyolo (58%) were living more than 6 km of a nearest all-weather road (Table 52).

Table 52: Distances that health workers travel to nearest all-weather roads disaggregated by Region, Zone, Location of work and District

|                         | Distances |        |        |         |       | No          |
|-------------------------|-----------|--------|--------|---------|-------|-------------|
|                         | N         | <=1 KM | 1-3 KM | >3-6 KM | >6 KM | information |
| All Staff               | 33766     | 56.5   | 12.0   | 6.6     | 16.7  | 8.1         |
| <b>Region</b>           |           |        |        |         |       |             |
| North                   | 5315      | 49.2   | 14.9   | 8.4     | 19.3  | 8.3         |
| Centre                  | 13082     | 60.2   | 11.0   | 6.8     | 13.0  | 9.0         |
| South                   | 15369     | 55.9   | 11.9   | 5.9     | 18.9  | 7.4         |
| <b>Zone</b>             |           |        |        |         |       |             |
| North                   | 5315      | 49.2   | 14.9   | 8.4     | 19.3  | 8.3         |
| Central East            | 4618      | 62.5   | 12.1   | 7.6     | 15.4  | 2.4         |
| Central West            | 8464      | 59.0   | 10.4   | 6.4     | 11.7  | 12.5        |
| South East              | 7334      | 59.6   | 10.9   | 5.8     | 18.7  | 5.0         |
| South West              | 8035      | 52.6   | 12.8   | 6.0     | 19.1  | 9.5         |
| <b>Location of work</b> |           |        |        |         |       |             |
| Urban                   | 8224      | 61.6   | 13.4   | 4.7     | 3.0   | 17.2        |
| Rural                   | 17789     | 49.4   | 10.7   | 7.9     | 26.5  | 5.4         |
| Semi-Urban              | 7753      | 67.4   | 13.5   | 5.8     | 8.7   | 4.6         |
| <b>District</b>         |           |        |        |         |       |             |
| Chitipa                 | 414       | 67.1   | 17.6   | 5.1     | 2.4   | 7.7         |
| Karonga                 | 677       | 63.4   | 16.7   | 8.6     | 4.4   | 6.9         |
| Rumphi                  | 724       | 53.3   | 8.8    | 5.1     | 29.8  | 2.9         |
| Mzimba                  | 2902      | 41.5   | 15.8   | 9.8     | 22.7  | 10.1        |
| Nkhatabay               | 547       | 51.6   | 14.8   | 7.7     | 18.8  | 7.1         |
| Likoma                  | 51        | 72.5   | 2.0    | 2.0     | 11.8  | 11.8        |
| Kasungu                 | 1026      | 44.2   | 14.2   | 11.5    | 28.6  | 1.5         |
| Nkhotakota              | 941       | 76.3   | 11.3   | 6.7     | 4.8   | 1.0         |
| Ntchisi                 | 492       | 50.6   | 12.2   | 7.1     | 26.8  | 3.3         |
| Mchinji                 | 976       | 61.8   | 14.7   | 10.8    | 10.3  | 2.5         |
| Salima                  | 932       | 63.1   | 10.0   | 8.2     | 16.4  | 2.4         |
| Dowa                    | 1227      | 71.3   | 12.7   | 4.9     | 7.2   | 3.9         |
| Lilongwe                | 5140      | 49.0   | 11.4   | 6.6     | 13.7  | 19.3        |
| Dedza                   | 1233      | 89.7   | 5.2    | 1.3     | 1.5   | 2.3         |
| Ntcheu                  | 1115      | 68.3   | 7.7    | 7.3     | 14.9  | 1.8         |
| Balaka                  | 719       | 14.9   | 13.2   | 5.0     | 61.5  | 5.4         |
| Mangochi                | 1453      | 67.3   | 11.4   | 6.3     | 9.1   | 6.0         |
| Machinga                | 963       | 50.5   | 9.8    | 9.8     | 25.8  | 4.3         |
| Zomba                   | 2297      | 52.9   | 11.4   | 5.7     | 21.9  | 8.1         |
| Phalombe                | 679       | 88.2   | 8.0    | 1.6     | 1.8   | 0.4         |
| Mulanje                 | 1223      | 80.5   | 10.7   | 5.2     | 2.7   | 0.9         |
| Thyolo                  | 1504      | 11.3   | 12.3   | 8.2     | 57.8  | 10.4        |
| Blantyre                | 3640      | 64.9   | 12.3   | 4.4     | 7.4   | 11.0        |
| Mwanza                  | 318       | 63.2   | 12.3   | 6.0     | 14.8  | 3.8         |
| Chiradzulu              | 781       | 75.8   | 10.8   | 5.6     | 7.2   | 0.6         |
| Chikwawa                | 887       | 46.8   | 16.3   | 8.8     | 18.9  | 9.1         |
| Nsanje                  | 652       | 52.5   | 14.6   | 4.8     | 14.1  | 14.1        |
| Neno                    | 253       | 56.5   | 12.6   | 11.5    | 13.0  | 6.3         |

### **7.7.2 *Nearest Primary School***

Studies have reported that some health workers refuse to work in rural areas because of distances to primary schools for their children (Kadzandira and Mvula 2002). The census collected information on the distances from houses of the health workers to the nearest primary schools. Generally, the majority of the staff (58%) were living within 1 km of a primary school and these were proportionately more in the Central Region (62%) followed by the Northern Region (61%). Apparently no major differences were observed between health workers in urban areas and those working in rural or semi-urban areas. At district level, more of the health workers in Balaka (46%) and Thyolo (39%) were living more than 6 km of a nearest primary school (Table 53).

Table 53: Distances that health workers travel to nearest primary school disaggregated by Region, Zone, Location of Work and District

|                         |       | Distances |        |         |       |                |
|-------------------------|-------|-----------|--------|---------|-------|----------------|
|                         |       | <=1 KM    | 1-3 KM | >3-6 KM | >6 KM | No information |
| All Staff               | 33766 | 58.4      | 21.6   | 6.9     | 5.2   | 7.9            |
| <b>Regions</b>          |       |           |        |         |       |                |
| North                   | 5315  | 60.5      | 22.1   | 7.0     | 2.3   | 8.1            |
| Centre                  | 13082 | 61.8      | 20.3   | 6.1     | 2.8   | 9.0            |
| South                   | 15369 | 54.9      | 22.4   | 7.4     | 8.4   | 6.9            |
| <b>Zones</b>            |       |           |        |         |       |                |
| North                   | 5315  | 60.5      | 22.1   | 7.0     | 2.3   | 8.1            |
| Central East            | 4618  | 68.9      | 20.5   | 6.1     | 2.0   | 2.4            |
| Central West            | 8464  | 57.9      | 20.2   | 6.1     | 3.2   | 12.6           |
| South East              | 7334  | 58.2      | 22.2   | 7.7     | 7.5   | 4.4            |
| South West              | 8035  | 51.8      | 22.7   | 7.2     | 9.2   | 9.2            |
| <b>Location of work</b> |       |           |        |         |       |                |
| Urban                   | 8224  | 56.5      | 19.2   | 4.6     | 1.8   | 17.8           |
| Rural                   | 17789 | 58.8      | 21.7   | 8.0     | 6.9   | 4.6            |
| Semi-Urban              | 7753  | 59.6      | 23.7   | 6.6     | 5.1   | 4.9            |
| Chitipa                 | 414   | 69.3      | 18.4   | 3.9     | 0.7   | 7.7            |
| Karonga                 | 677   | 57.2      | 27.0   | 7.8     | 1.2   | 6.8            |
| Rumphi                  | 724   | 67.8      | 18.9   | 7.0     | 3.5   | 2.8            |
| Mzimba                  | 2902  | 58.2      | 21.4   | 7.5     | 2.7   | 10.2           |
| Nkhatabay               | 547   | 59.4      | 28.2   | 5.5     | 1.5   | 5.5            |
| Likoma                  | 51    | 72.5      | 7.8    | 9.8     | 0.0   | 9.8            |
| Kasungu                 | 1026  | 63.2      | 23.3   | 8.7     | 2.9   | 1.9            |
| Nkhotakota              | 941   | 70.6      | 21.4   | 5.3     | 1.7   | 1.1            |
| Ntchisi                 | 492   | 68.5      | 24.0   | 4.9     | 0.8   | 1.8            |
| Mchinji                 | 976   | 58.9      | 28.5   | 8.4     | 2.2   | 2.0            |
| Salima                  | 932   | 67.0      | 19.0   | 8.7     | 2.9   | 2.5            |
| Dowa                    | 1227  | 74.2      | 17.4   | 3.3     | 1.1   | 4.0            |
| Lilongwe                | 5140  | 54.6      | 18.9   | 5.0     | 2.2   | 19.4           |
| Dedza                   | 1233  | 72.5      | 19.2   | 5.3     | 1.0   | 2.0            |
| Ntcheu                  | 1115  | 56.0      | 20.1   | 10.4    | 11.3  | 2.2            |
| Balaka                  | 719   | 26.4      | 18.9   | 3.8     | 45.6  | 5.3            |
| Mangochi                | 1453  | 62.4      | 19.2   | 7.6     | 4.0   | 6.9            |
| Machinga                | 963   | 52.8      | 23.5   | 11.4    | 9.0   | 3.3            |
| Zomba                   | 2297  | 59.9      | 24.7   | 7.4     | 1.9   | 6.1            |
| Phalombe                | 679   | 73.0      | 20.0   | 4.7     | 2.1   | 0.1            |
| Mulanje                 | 1223  | 64.9      | 23.0   | 9.5     | 1.6   | 1.0            |
| Thyolo                  | 1504  | 17.3      | 24.9   | 7.9     | 38.8  | 11.1           |
| Blantyre                | 3640  | 61.0      | 19.5   | 5.9     | 1.8   | 11.8           |
| Mwanza                  | 318   | 57.2      | 30.5   | 6.6     | 2.5   | 3.1            |
| Chiradzulu              | 781   | 61.5      | 26.4   | 8.6     | 2.6   | 1.0            |
| Chikwawa                | 887   | 51.3      | 27.8   | 10.4    | 4.1   | 6.4            |
| Nsanje                  | 652   | 61.2      | 22.1   | 7.4     | 2.0   | 7.4            |
| Neno                    | 253   | 65.6      | 18.2   | 5.9     | 3.6   | 6.7            |



### 7.7.3 Distances to Shopping Centres

The census also collected information on the distances that staff travel to the nearest shopping centres. The findings on this are shown in Table 54 below. Close to half of the health workers (49%) were living within 1 km of a shopping centre, 21% were living within 1-3 km, 11% were living 3-6 km and 11% were living more than 6km of a shopping centre. Generally, health workers in rural areas were living a bit far from nearest shopping centres than their counterparts and at district level, more health workers in Balaka (35%) and Thyolo (39%) were living more than 6 km of a nearest shopping centre than health workers in the other districts.

Table 54: Distances to nearest shopping centres disaggregated by Region, Zone, Location of Work and District

|                         |       | Distances |        |         |       | No information |
|-------------------------|-------|-----------|--------|---------|-------|----------------|
|                         |       | <=1 KM    | 1-3 KM | >3-6 KM | >6 KM |                |
| All Staff               | 33766 | 48.8      | 21.2   | 10.8    | 11.2  | 8.1            |
| <b>Region</b>           |       |           |        |         |       |                |
| North                   | 5315  | 44.0      | 23.8   | 13.5    | 10.4  | 8.2            |
| Centre                  | 13082 | 52.7      | 19.2   | 10.5    | 8.5   | 9.2            |
| South                   | 15369 | 47.1      | 22.0   | 10.2    | 13.7  | 7.0            |
| <b>Zone</b>             |       |           |        |         |       |                |
| North                   | 5315  | 44.0      | 23.8   | 13.5    | 10.4  | 8.2            |
| Central East            | 4618  | 57.3      | 20.5   | 10.7    | 8.9   | 2.6            |
| Central West            | 8464  | 50.1      | 18.4   | 10.3    | 8.3   | 12.8           |
| South East              | 7334  | 47.4      | 23.0   | 11.4    | 13.6  | 4.7            |
| South West              | 8035  | 46.9      | 21.0   | 9.1     | 13.8  | 9.1            |
| <b>Location of work</b> |       |           |        |         |       |                |
| Urban                   | 8224  | 49.1      | 19.8   | 9.1     | 4.5   | 17.6           |
| Rural                   | 17789 | 47.7      | 19.7   | 11.9    | 15.6  | 5.0            |
| Semi-Urban              | 7753  | 50.8      | 26.1   | 10.1    | 8.1   | 4.9            |
| <b>Districts</b>        |       |           |        |         |       |                |
| Chitipa                 | 414   | 55.3      | 21.0   | 7.7     | 8.0   | 8.0            |
| Karonga                 | 677   | 45.1      | 24.2   | 13.0    | 10.3  | 7.4            |
| Rumphi                  | 724   | 59.3      | 22.1   | 7.6     | 8.0   | 3.0            |
| Mzimba                  | 2902  | 39.2      | 24.3   | 15.9    | 10.5  | 10.2           |
| Nkhatabay               | 547   | 37.8      | 25.8   | 14.3    | 16.1  | 6.0            |
| Likoma                  | 51    | 56.9      | 17.6   | 11.8    | 3.9   | 9.8            |
| Kasungu                 | 1026  | 47.9      | 19.9   | 17.6    | 12.9  | 1.8            |
| Nkhotakota              | 941   | 60.1      | 25.0   | 8.3     | 5.3   | 1.3            |
| Ntchisi                 | 492   | 41.7      | 26.6   | 11.2    | 16.1  | 4.5            |
| Mchinji                 | 976   | 59.5      | 18.8   | 13.0    | 6.6   | 2.2            |
| Salima                  | 932   | 60.1      | 18.9   | 11.1    | 7.6   | 2.4            |
| Dowa                    | 1227  | 67.0      | 16.5   | 6.4     | 6.3   | 3.8            |
| Lilongwe                | 5140  | 50.0      | 16.4   | 8.1     | 6.0   | 19.6           |
| Dedza                   | 1233  | 49.6      | 25.1   | 13.6    | 9.0   | 2.7            |
| Ntcheu                  | 1115  | 43.3      | 20.2   | 14.8    | 19.5  | 2.2            |
| Balaka                  | 719   | 25.2      | 26.4   | 8.2     | 35.0  | 5.1            |
| Mangochi                | 1453  | 54.6      | 19.3   | 9.8     | 8.3   | 7.9            |
| Machinga                | 963   | 48.4      | 22.8   | 13.7    | 12.0  | 3.0            |

|            |      |      |      |      |      |      |
|------------|------|------|------|------|------|------|
| Zomba      | 2297 | 45.4 | 25.3 | 10.4 | 12.3 | 6.6  |
| Phalombe   | 679  | 60.4 | 18.6 | 12.1 | 8.8  | 0.1  |
| Mulanje    | 1223 | 47.5 | 23.5 | 14.6 | 13.6 | 0.9  |
| Thyolo     | 1504 | 13.9 | 24.3 | 11.2 | 39.4 | 11.2 |
| Blantyre   | 3640 | 57.4 | 18.9 | 6.9  | 5.4  | 11.3 |
| Mwanza     | 318  | 53.1 | 20.1 | 9.7  | 13.5 | 3.5  |
| Chiradzulu | 781  | 59.8 | 22.3 | 10.6 | 6.4  | 0.9  |
| Chikwawa   | 887  | 44.0 | 23.4 | 10.8 | 14.9 | 6.9  |
| Nsanje     | 652  | 50.2 | 22.5 | 9.4  | 9.0  | 8.9  |
| Neno       | 253  | 46.6 | 17.8 | 15.0 | 14.2 | 6.3  |

#### 7.7.4 Distance to Workplace

Findings on the distances that staff travel from their homes to their places of work are presented in Table 56 below. Overall, 38% of the staff were living within 1 km of their facilities, 20% were living within 1-3 km, 15% were living within 3-6 km and 18% were living more than 6 km. The findings further showed that health workers in urban areas were living relatively far from their facilities compared with their counterparts in rural and semi-urban areas. At district level, more health workers in Balaka (42%) and Thyolo (45%) reported living more than 6 km from their facilities.

Table 55: Distances to places of work

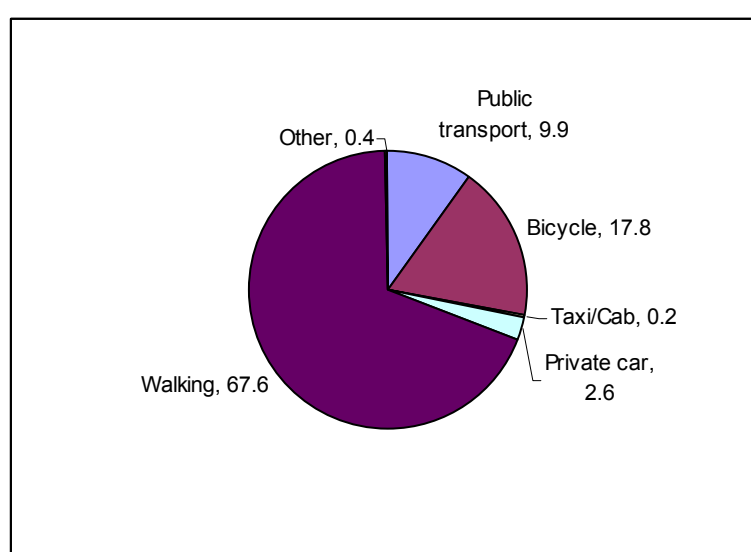
|                         |       | Distances |        |         |       |                |
|-------------------------|-------|-----------|--------|---------|-------|----------------|
|                         |       | <=1 KM    | 1-3 KM | >3-6 KM | >6 KM | No information |
| All Staff               | 33766 | 38.1      | 20.1   | 15.1    | 18.4  | 8.3            |
| <b>Region</b>           |       |           |        |         |       |                |
| North                   | 5315  | 44.8      | 21.4   | 14.7    | 10.9  | 8.2            |
| Centre                  | 13082 | 39.5      | 18.4   | 14.6    | 18.3  | 9.2            |
| South                   | 15369 | 34.6      | 21.0   | 15.8    | 21.0  | 7.5            |
| <b>Zone</b>             |       |           |        |         |       |                |
| North                   | 5315  | 44.8      | 21.4   | 14.7    | 10.9  | 8.2            |
| Central East            | 4618  | 48.4      | 20.9   | 14.0    | 14.4  | 2.4            |
| Central West            | 8464  | 34.6      | 17.1   | 14.9    | 20.5  | 13.0           |
| South East              | 7334  | 41.0      | 21.8   | 15.6    | 17.1  | 4.4            |
| South West              | 8035  | 28.8      | 20.3   | 16.0    | 24.6  | 10.3           |
| <b>Location of work</b> |       |           |        |         |       |                |
| Urban                   | 8224  | 16.0      | 18.6   | 20.9    | 25.4  | 19.2           |
| Rural                   | 17789 | 46.7      | 17.9   | 13.0    | 17.8  | 4.7            |
| Semi-Urban              | 7753  | 42.0      | 26.8   | 14.0    | 12.3  | 5.0            |
| <b>District</b>         |       |           |        |         |       |                |
| Chitipa                 | 414   | 61.1      | 22.0   | 5.8     | 3.4   | 7.7            |
| Karonga                 | 677   | 45.8      | 22.9   | 14.9    | 9.0   | 7.4            |
| Rumphi                  | 724   | 65.3      | 18.0   | 7.5     | 6.5   | 2.8            |
| Mzimba                  | 2902  | 36.8      | 22.3   | 17.1    | 13.4  | 10.3           |
| Nkhatabay               | 547   | 45.3      | 19.4   | 17.9    | 12.1  | 5.3            |
| Likoma                  | 51    | 60.8      | 17.6   | 9.8     | 2.0   | 9.8            |
| Kasungu                 | 1026  | 37.3      | 18.9   | 17.6    | 24.3  | 1.9            |
| Nkhotakota              | 941   | 58.3      | 25.2   | 9.7     | 5.5   | 1.3            |

|            |      |      |      |      |      |      |
|------------|------|------|------|------|------|------|
| Ntchisi    | 492  | 38.8 | 27.0 | 16.1 | 15.7 | 2.4  |
| Mchinji    | 976  | 56.5 | 17.8 | 11.2 | 12.7 | 1.8  |
| Salima     | 932  | 39.8 | 22.0 | 19.6 | 16.4 | 2.1  |
| Dowa       | 1227 | 60.4 | 15.8 | 9.1  | 10.8 | 3.8  |
| Lilongwe   | 5140 | 23.9 | 14.8 | 16.7 | 24.6 | 20.0 |
| Dedza      | 1233 | 51.1 | 22.9 | 12.4 | 10.8 | 2.8  |
| Ntcheu     | 1115 | 46.4 | 20.3 | 12.6 | 18.8 | 1.9  |
| Balaka     | 719  | 15.6 | 22.8 | 13.6 | 42.1 | 5.8  |
| Mangochi   | 1453 | 50.7 | 16.2 | 11.6 | 14.5 | 7.0  |
| Machinga   | 963  | 34.5 | 24.2 | 20.1 | 17.8 | 3.4  |
| Zomba      | 2297 | 33.9 | 26.1 | 18.5 | 15.5 | 6.1  |
| Phalombe   | 679  | 58.5 | 21.1 | 12.1 | 8.1  | 0.3  |
| Mulanje    | 1223 | 53.2 | 18.5 | 14.6 | 13.1 | 0.7  |
| Thyolo     | 1504 | 11.5 | 19.7 | 12.2 | 45.1 | 11.4 |
| Blantyre   | 3640 | 22.9 | 19.2 | 19.4 | 24.4 | 14.1 |
| Mwanza     | 318  | 38.1 | 30.5 | 16.0 | 11.6 | 3.8  |
| Chiradzulu | 781  | 43.8 | 21.3 | 14.2 | 20.0 | 0.8  |
| Chikwawa   | 887  | 39.8 | 21.3 | 14.1 | 18.0 | 6.8  |
| Nsanje     | 652  | 52.9 | 22.2 | 11.0 | 6.1  | 7.7  |
| Neno       | 253  | 60.1 | 15.0 | 13.0 | 6.3  | 5.5  |

## 7.8 Means of Transport to work

The health workers were also asked to state their main means of transport to their places of work and the findings on this are presented in Figure 14 below. Generally, the majority of the workers (69%) reported that they walk to get to work, 18% were using bicycles and 10% use public transport. Health workers in rural facilities recorded the highest proportion (75%) that walks to get to work compared to both semi-urban and urban areas. Urban areas have the highest proportion of those who use private vehicles (8%) and public transport (34.4%) to get to work compared to workers in both urban and semi-urban areas.

Figure 14: Means of transport to work (N=31,219)



## 8.0 STATUS OF EMPLOYMENT IN THE HEALTH SECTOR

This chapter discusses the status of employment as reported by the health workers during the census including the nature of their employment, hours of work and their remuneration. The census also captured information on whether the health workers also worked in other health related as well as non-health related institutions in addition to their current employment.

### 8.1 Tenure of employment

The health workers were first asked to state the tenure of their employment with the current employers. The findings on this are presented in Table 56 below. As may be observed from the Table, 76% were on permanent employment, 14% were on fixed contracts with their employers, 5% were on temporary employment (month to month basis) while 4% were on probation. At the time of the census, the government had just recruited a new group of HSAs hence the large proportion (8%) of those who reported to be on probation compared to the other cadres of staff.

Table 56: Tenure of employment with current employers

| Profession               | N    | Tenure of employment with current employer |               |                       |               |                      |                       |
|--------------------------|------|--------------------------------------------|---------------|-----------------------|---------------|----------------------|-----------------------|
|                          |      | Perman<br>ent                              | Tempor<br>ary | Fixed<br>contra<br>ct | Probati<br>on | Self<br>employ<br>ed | No<br>informati<br>on |
|                          | 3376 |                                            |               |                       |               |                      |                       |
| All Staff                | 6    | 75.9                                       | 5.3           | 14.3                  | 3.9           | 0.2                  | 0.4                   |
| Physicians               | 248  | 59.7                                       | 4.0           | 21.8                  | 2.0           | 2.8                  | 9.7                   |
| Clinical Officers        | 698  | 76.5                                       | 4.0           | 12.6                  | 3.6           | 2.4                  | 0.9                   |
| Medical Assistants       | 711  | 80.5                                       | 4.9           | 8.3                   | 3.4           | 2.8                  | 0.1                   |
| Nurses                   | 4450 | 84.3                                       | 4.1           | 8.9                   | 2.3           | 0.2                  | 0.2                   |
| Technicians              | 1314 | 87.9                                       | 2.7           | 6.1                   | 2.7           | 0.5                  | 0.2                   |
| Lecturers/Researchers    | 102  | 75.5                                       | 1.0           | 22.5                  | 1.0           | 0.0                  | 0.0                   |
|                          | 1004 |                                            |               |                       |               |                      |                       |
| HSAs                     | 6    | 50.0                                       | 10.4          | 32.1                  | 7.5           | 0.0                  | 0.0                   |
| Hospital Attendants      | 5681 | 95.2                                       | 1.1           | 1.9                   | 1.8           | 0.0                  | 0.0                   |
| Public Health Workers    | 326  | 89.3                                       | 2.5           | 5.2                   | 2.8           | 0.0                  | 0.3                   |
| Semi-skilled Workers     | 369  | 82.9                                       | 3.3           | 11.9                  | 1.6           | 0.0                  | 0.3                   |
| Management/Support Staff | 9739 | 85.9                                       | 3.7           | 7.7                   | 2.5           | 0.1                  | 0.2                   |
| Not Cited                | 82   | 0.0                                        | 0.0           | 0.0                   | 0.0           | 0.0                  | 100.0                 |

### 8.2 Nature of contract term

The health workers were also asked to state the nature of their contract with their contract employers whether it is part-time or fulltime. The findings on this are presented in Table 57 below. As may be observed from the Table, 91% of the staff in government and 92% of the staff in CHAM have fulltime contracts with their employers and generally there are no differences across various cadres of staff although relatively more physicians and lecturers/tutors reported to be on part-time contracts.

Table 57: Nature of contract term with current employer

|                          | Government |           |         |       | Employer<br>CHAM |           |         |       | Others    |           |         |    |
|--------------------------|------------|-----------|---------|-------|------------------|-----------|---------|-------|-----------|-----------|---------|----|
|                          | Part-time  | Full-time | No info |       | Part-time        | Full-time | No info |       | Part-time | Full-time | No info |    |
|                          | N          | %         | %       | %     | N                | %         | %       | %     | N         | %         | %       | %  |
| All Staff                | 21754      | 8.5       | 91.2    | 0.3   | 8399             | 8.3       | 91.6    | 0.1   | 3613      | 19.3      | 78.7    | 2  |
| Physicians               | 108        | 18.5      | 79.6    | 1.9   | 40               | 30.0      | 70.0    | 0.0   | 100       | 28.0      | 50.0    | 2  |
| Clinical Officers        | 404        | 9.2       | 90.6    | 0.2   | 117              | 12.8      | 87.2    | 0.0   | 177       | 20.9      | 76.3    |    |
| Medical Assistants       | 480        | 6.3       | 93.8    | 0.0   | 117              | 7.7       | 92.3    | 0.0   | 114       | 14.0      | 85.1    |    |
| Nurses                   | 2872       | 12.2      | 87.7    | 0.0   | 956              | 10.9      | 89.1    | 0.0   | 622       | 20.9      | 77.8    |    |
| Technicians              | 671        | 7.0       | 93.0    | 0.0   | 392              | 9.4       | 90.6    | 0.0   | 251       | 19.1      | 80.1    |    |
| Lecturers/Researchers    | 43         | 65.1      | 34.9    | 0.0   | 40               | 35.0      | 65.0    | 0.0   | 19        | 15.8      | 84.2    |    |
| HSAs                     | 8070       | 8.3       | 91.6    | 0.0   | 1790             | 6.7       | 93.3    | 0.0   | 186       | 9.1       | 90.9    |    |
| Hospital Attendants      | 3776       | 6.3       | 93.8    | 0.0   | 1660             | 6.9       | 93.1    | 0.0   | 245       | 13.1      | 86.9    |    |
| Public Health Workers    | 286        | 10.5      | 89.2    | 0.3   | 26               | 3.8       | 96.2    | 0.0   | 14        | 35.7      | 64.3    |    |
| Semi-skilled Workers     | 72         | 18.1      | 81.9    | 0.0   | 259              | 4.2       | 95.4    | 0.4   | 38        | 21.1      | 78.9    |    |
| Management/Support Staff | 4924       | 7.7       | 92.0    | 0.3   | 2994             | 8.8       | 91.2    | 0.0   | 1821      | 20.5      | 79.0    |    |
| Not Cited                | 48         | 0.0       | 0.0     | 100.0 | 8                | 0.0       | 0.0     | 100.0 | 26        | 0.0       | 0.0     | 10 |

### 8.3 Proportion of staff confirmed in their positions

All staff who reported to have permanent contracts with their employers were asked to state if they were confirmed in their positions. The findings on this are presented in Table 58 below. Over three quarters of the staff (88% in government and CHAM and 70% of those employed elsewhere) reported being confirmed whereas 4% had not been confirmed. While most staff are aware about their employment status as either being confirmed or not, there are still a number of staff who are not sure about their status and these were not sure whether they had received any communication or not on this issue. Details are presented in Table 58 below.

Table 58: Proportion of staff confirmed in their positions

|                          | Government |      |     |          | Employer<br>CHAM |      |     |          | Others |      |     |          |
|--------------------------|------------|------|-----|----------|------------------|------|-----|----------|--------|------|-----|----------|
|                          | N          | Yes  | No  | Not sure | N                | Yes  | No  | Not sure | N      | Yes  | No  | Not sure |
| All Staff                | 16645      | 87.6 | 4.3 | 8.0      | 6617             | 88.0 | 3.9 | 8.1      | 2370   | 70.4 | 3.9 | 25.7     |
| Physicians               | 74         | 56.8 | 6.8 | 36.5     | 27               | 51.9 | 3.7 | 44.4     | 47     | 46.8 | 0.0 | 53.2     |
| Clinical Officers        | 342        | 83.3 | 6.4 | 10.2     | 95               | 84.2 | 2.1 | 13.7     | 97     | 70.1 | 4.1 | 25.8     |
| Medical Assistants       | 405        | 83.7 | 9.6 | 6.7      | 96               | 83.3 | 8.3 | 8.3      | 71     | 83.1 | 5.6 | 11.3     |
| Nurses                   | 2476       | 80.6 | 5.9 | 13.5     | 872              | 85.4 | 2.9 | 11.7     | 405    | 68.6 | 2.0 | 29.4     |
| Technicians              | 624        | 83.2 | 8.3 | 8.5      | 356              | 88.5 | 2.8 | 8.7      | 175    | 74.9 | 2.3 | 22.9     |
| Lecturers/Researchers    | 37         | 32.4 | 0.0 | 67.6     | 31               | 48.4 | 6.5 | 45.2     | 9      | 66.7 | 0.0 | 33.3     |
| HSAs                     | 4104       | 90.2 | 3.8 | 6.0      | 821              | 90.0 | 3.8 | 6.2      | 94     | 88.3 | 3.2 | 8.5      |
| Hospital Attendants      | 3678       | 91.8 | 2.7 | 5.5      | 1523             | 89.2 | 4.4 | 6.4      | 208    | 84.1 | 2.9 | 13.0     |
| Public Health Workers    | 261        | 81.2 | 7.3 | 11.5     | 23               | 91.3 | 8.7 | 0.0      | 7      | 28.6 | 0.0 | 71.4     |
| Semi-skilled Workers     | 58         | 81.0 | 1.7 | 17.2     | 229              | 90.4 | 3.9 | 5.7      | 19     | 52.6 | 5.3 | 42.1     |
| Management/Support Staff | 4586       | 88.4 | 4.0 | 7.6      | 2544             | 88.4 | 3.9 | 7.6      | 1238   | 67.4 | 5.0 | 27.6     |

## 8.4 Hours of work in their parent department

The health workers were also asked to state the number of hours that they work in the department they belong each week. Information on this would help to estimate and understand the workload that staff in the health sector have. The results on this are presented in Table 59 below. The majority of the staff reported to work more than 40 hours per week (65%) and this was the case for all the categories of staff. Generally, very few staff work for less than 10 hours per week in their departments (<1%).

Table 59: Hours of work in parent department

|                          | N     | Hours of work |        |        |        |      | No information |
|--------------------------|-------|---------------|--------|--------|--------|------|----------------|
|                          |       | <10           | >10-20 | >20-30 | >30-40 | >40  |                |
| All Staff                | 33766 | 0.3           | 0.9    | 1.1    | 27.0   | 64.6 | 6.2            |
| Physicians               | 248   | 0.4           | 2.0    | 2.4    | 8.5    | 54.0 | 32.7           |
| Clinical Officers        | 698   | 0.1           | 0.7    | 1.0    | 16.6   | 71.5 | 10.0           |
| Medical Assistants       | 711   | 0.1           | 0.3    | 1.0    | 17.3   | 77.2 | 4.1            |
| Nurses                   | 4450  | 0.2           | 0.4    | 0.7    | 16.8   | 71.5 | 10.5           |
| Technicians              | 1314  | 0.2           | 0.6    | 0.5    | 26.0   | 64.9 | 7.8            |
| Lecturers/Researchers    | 102   | 0.0           | 3.9    | 0.0    | 22.5   | 33.3 | 40.2           |
| HSAs                     | 10046 | 0.3           | 1.1    | 1.2    | 36.3   | 59.2 | 2.0            |
| Hospital Attendants      | 5681  | 0.2           | 0.6    | 0.9    | 27.5   | 66.4 | 4.3            |
| Public Health Workers    | 326   | 0.0           | 0.3    | 0.3    | 24.5   | 66.6 | 8.3            |
| Semi-skilled Workers     | 369   | 1.9           | 1.4    | 1.9    | 33.3   | 55.0 | 6.5            |
| Management/Support Staff | 9739  | 0.3           | 1.0    | 1.3    | 24.0   | 65.9 | 7.5            |
| Not Cited                | 82    | 0.0           | 0.0    | 0.0    | 0.0    | 0.0  | 100.0          |

## 8.5 Proportion of staff reporting to work in other departments and facilities

The health workers were also asked to state if they also worked in other departments within the same facility in addition to their parent department. The findings on this are presented in Table 60 below. A fifth (20%) of the staff reported working in other departments and this was relatively higher among Medical Assistants (49%), Clinical Officers (38%), Nurses (35%) and semi-skilled workers (33%). As expected, some staff are employed to perform specific jobs such as laboratory or pharmaceutical work and it is not very surprising that the Technicians, Management/Support staff and Lecturers do not work in other departments apart from their parent departments. For the Medical Assistants, Clinical Officers and Nurses, the proportions of those who work in other departments is higher probably because they are the only clinical staff available at the facilities especially in rural areas as such they have to work in the other departments as well.

Table 60: Proportion of staff indicating that they work in other departments in the same facility

| Category of staff        | N     | % working in other departments in same facility | % working in other facilities |
|--------------------------|-------|-------------------------------------------------|-------------------------------|
| All staff                | 33637 | 20.1                                            | 5.7                           |
| Physicians               | 223   | 27.8                                            | 15.8                          |
| Clinical Officers        | 691   | 37.8                                            | 15.0                          |
| Medical Assistants       | 708   | 48.9                                            | 7.9                           |
| Nurses                   | 4434  | 35.2                                            | 8.5                           |
| Technicians              | 1307  | 21.3                                            | 8.4                           |
| Lecturers/Researchers    | 102   | 14.7                                            | 12.7                          |
| HSAs                     | 10032 | 13.7                                            | 5.9                           |
| Hospital Attendants      | 5680  | 23.2                                            | 2.1                           |
| Public Health Workers    | 324   | 24.7                                            | 21.0                          |
| Semi-skilled Workers     | 366   | 32.5                                            | 3.8                           |
| Management/Support Staff | 9688  | 13.9                                            | 4.6                           |

## 8.6 In-Service Training

### 8.6.1 Disaggregated by category of staff

In-service training is important for all staff in order to learn new ways of delivering services, obtain and upgrade required skills and to share experiences with other workers and trainers. The Census collected information on whether the health workers had ever attended any in-service training in the last one year preceding the census. The results on this show that nearly half (47%) of all the staff did not attend any training during the period of reference, 36% had attended 1-3 training sessions whereas 8% had attended more than 3 training sessions (Table 61).

The findings of the census also show less in-service training among the non-health professionals such as HSAs (55%), ward attendants (52%) and the management and support staff (56%).

Table 61: Proportion of health workers that had in-service training in the last 1 year preceding the census

| Category of staff        | N     | Number of short trainings undertaken |           |          |                |
|--------------------------|-------|--------------------------------------|-----------|----------|----------------|
|                          |       | None                                 | 1-3 times | >3 times | No information |
| All staff                | 33766 | 46.9                                 | 36.0      | 7.9      | 9.2            |
| Physicians               | 248   | 18.5                                 | 26.6      | 14.9     | 39.9           |
| Clinical Officers        | 698   | 15.6                                 | 42.0      | 28.5     | 13.9           |
| Medical Assistants       | 711   | 15.9                                 | 45.4      | 29.7     | 9.0            |
| Nurses                   | 4450  | 19.1                                 | 47.8      | 19.1     | 14.0           |
| Technicians              | 1314  | 37.4                                 | 39.3      | 11.8     | 11.6           |
| Lecturers/Researchers    | 102   | 15.7                                 | 27.5      | 14.7     | 42.2           |
| HSAs                     | 10046 | 55.1                                 | 34.3      | 6.1      | 4.4            |
| Hospital Attendants      | 5681  | 51.8                                 | 38.6      | 3.3      | 6.4            |
| Public Health Workers    | 326   | 28.2                                 | 33.1      | 23.6     | 15.0           |
| Semi-skilled Workers     | 369   | 37.1                                 | 46.9      | 6.5      | 9.5            |
| Management/Support Staff | 9739  | 56.4                                 | 29.7      | 3.2      | 10.7           |
| Not cited                | 82    | 0.0                                  | 0.0       | 0.0      | 100.0          |

### 8.6.2 Disaggregated by region, zone, sex of staff and location work

The results of the census also showed less access to in-service training among health workers in the Southern and Central Regions as 51% and 48% had none in the last 12 months preceding the census compared to only 30% of the health workers in the Northern Region. With regard to location of work, there was less in-service training among the staff in the rural areas (53% never attended any training in the last 12 months preceding the census) compared to staff in the urban areas (Table 62).

Table 62: Proportion of staff ever attended in-service training disaggregated by region, zone, sex of staff and location work

|                         |       | Number of short-term trainings undertaken |           |          |                |
|-------------------------|-------|-------------------------------------------|-----------|----------|----------------|
|                         |       | None                                      | 1-3 times | >3 times | No information |
| All Staff               | 33766 | 46.9                                      | 36.0      | 7.9      | 9.2            |
| <b>Region</b>           |       |                                           |           |          |                |
| North                   | 5315  | 29.5                                      | 48.7      | 10.5     | 11.3           |
| Centre                  | 13082 | 48.6                                      | 34.3      | 7.3      | 9.8            |
| South                   | 15369 | 51.4                                      | 33.1      | 7.6      | 7.9            |
| <b>Zone</b>             |       |                                           |           |          |                |
| North                   | 5315  | 29.5                                      | 48.7      | 10.5     | 11.3           |
| Central East            | 4618  | 56.5                                      | 33.0      | 8.6      | 1.9            |
| Central West            | 8464  | 44.2                                      | 35.0      | 6.7      | 14.1           |
| South East              | 7334  | 53.0                                      | 32.7      | 8.5      | 5.7            |
| South West              | 8035  | 50.0                                      | 33.5      | 6.8      | 9.8            |
| <b>Location of work</b> |       |                                           |           |          |                |
| Urban                   | 8224  | 36.4                                      | 38.2      | 7.8      | 17.6           |
| Rural                   | 17789 | 53.3                                      | 33.5      | 6.7      | 6.5            |
| Semi-Urban              | 7753  | 43.1                                      | 39.6      | 11.0     | 6.3            |
| <b>Sex of staff</b>     |       |                                           |           |          |                |
| Male                    | 19047 | 49.3                                      | 33.9      | 7.6      | 9.2            |
| Female                  | 14719 | 43.7                                      | 38.8      | 8.4      | 9.1            |

With regard to sex of the staff, there was relatively less in-service training among male staff compared to female staff in the last 12 months preceding the census. Nearly half of the male staff (49%) had no in service training in the period of reference compared to 43% of the female staff.

### 8.6.3 Proportion ever attended in-service training disaggregated by level of care

With regard to level of care, there was proportionately more in-service training among staff working in the tertiary facilities (52%) compared to the staff working in the other facilities (Table 63).



Table 63: Proportion of staff ever attended in-service training disaggregated by level of care

| Level of Care | N     | None | Number of short-term trainings undertaken |          |  | No information |
|---------------|-------|------|-------------------------------------------|----------|--|----------------|
|               |       |      | 1-3 times                                 | >3 times |  |                |
| All Staff     | 33766 | 46.9 | 36.0                                      | 7.9      |  | 9.2            |
| Primary       | 15089 | 51.8 | 34.5                                      | 7.2      |  | 6.6            |
| Secondary     | 13258 | 46.1 | 36.4                                      | 8.9      |  | 8.7            |
| Tertiary      | 2953  | 35.6 | 43.5                                      | 8.4      |  | 12.5           |
| Others        | 2466  | 34.5 | 35.0                                      | 7.1      |  | 23.5           |

### 8.6.3 Disaggregated by ownership status of the facilities

Table 64 below shows the proportion of staff that reported to have attended some in-service short-term trainings in the last 12 months preceding the census disaggregated by ownership status of the facilities. There was generally no major difference between staff working in government, CHAM and in facilities run by NGOs and companies. Less in-service training was reported by staff working for the private sector (30%) followed by staff working in facilities run by statutory organisations (34%).

Table 64: Proportion of staff ever attended in-service training disaggregated by ownership status of the facilities

| Ownership of facilities | N     | Number of short-term trainings undertaken |           |          |  | No information |
|-------------------------|-------|-------------------------------------------|-----------|----------|--|----------------|
|                         |       | None                                      | 1-3 times | >3 times |  |                |
| All staff               | 33766 | 46.9                                      | 36.0      | 7.9      |  | 9.2            |
| Government              | 21754 | 44.6                                      | 38.4      | 9.1      |  | 7.8            |
| CHAM                    | 8399  | 54.8                                      | 32.3      | 5.7      |  | 7.2            |
| NGO                     | 1104  | 34.3                                      | 37.0      | 8.3      |  | 20.3           |
| Private for profit      | 1705  | 47.5                                      | 25.2      | 4.8      |  | 22.6           |
| Statutory Organisation  | 506   | 34.8                                      | 28.1      | 6.1      |  | 31.0           |
| Company                 | 298   | 48.7                                      | 42.6      | 4.0      |  | 4.7            |

### 8.6.4 Disaggregated by District of work

At district level, more in-service training was reported in Mzimba where only 13% reported not have had any training in the last 12 months whereas Districts such as Chikwawa, Dowa, Mangochi and Nsanje registered high proportions (>60%) of staff that had no in-service training in the last 12 months. Details are presented in Table 65 below.

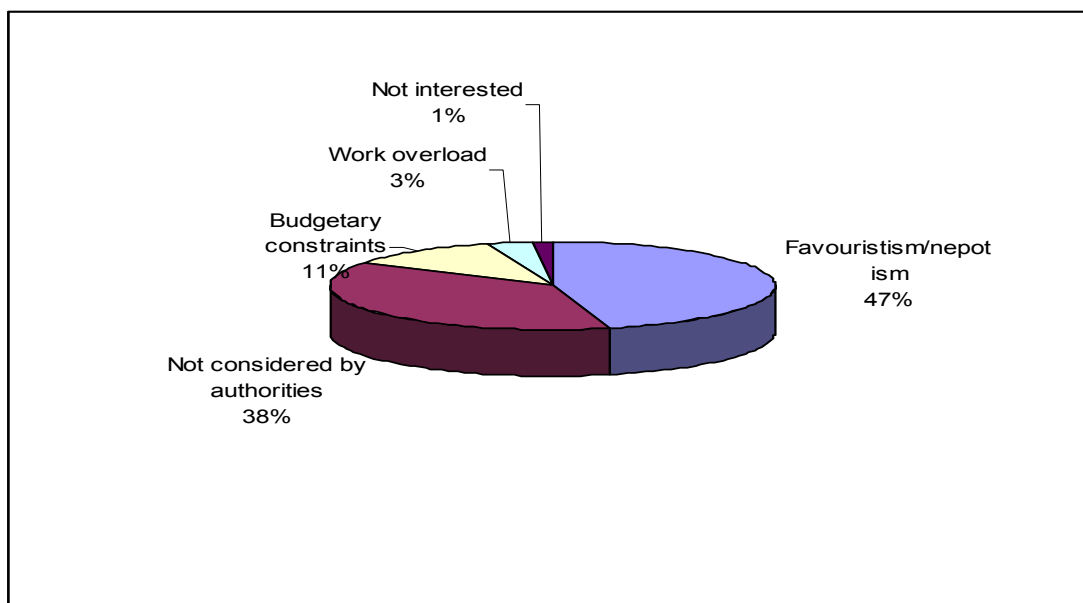
Table 65: Proportion of staff ever attended in-service training disaggregated by District or work

|            | N     | Number of short-term trainings undertaken |           |          |                |
|------------|-------|-------------------------------------------|-----------|----------|----------------|
|            |       | None                                      | 1-3 times | >3 times | No information |
| All Staff  | 33766 | 46.9                                      | 36.0      | 7.9      | 9.2            |
| Chitipa    | 414   | 38.4                                      | 35.7      | 12.6     | 13.3           |
| Karonga    | 677   | 54.8                                      | 33.5      | 4.3      | 7.4            |
| Rumphi     | 724   | 50.3                                      | 33.1      | 5.2      | 11.3           |
| Mzimba     | 2902  | 12.4                                      | 61.5      | 13.5     | 12.7           |
| Nkhatabay  | 547   | 53.2                                      | 31.8      | 7.7      | 7.3            |
| Likoma     | 51    | 49.0                                      | 31.4      | 7.8      | 11.8           |
| Kasungu    | 1026  | 58.2                                      | 33.7      | 5.8      | 2.3            |
| Nkhotakota | 941   | 55.9                                      | 34.4      | 8.2      | 1.5            |
| Ntchisi    | 492   | 56.5                                      | 29.7      | 12.8     | 1.0            |
| Mchinji    | 976   | 37.4                                      | 37.8      | 6.8      | 18.0           |
| Salima     | 932   | 46.2                                      | 38.4      | 12.7     | 2.7            |
| Dowa       | 1227  | 63.2                                      | 28.7      | 6.4      | 1.8            |
| Lilongwe   | 5140  | 40.4                                      | 34.2      | 6.2      | 19.2           |
| Dedza      | 1233  | 55.7                                      | 36.2      | 7.1      | 1.1            |
| Ntcheu     | 1115  | 55.1                                      | 35.2      | 8.3      | 1.3            |
| Balaka     | 719   | 47.6                                      | 35.3      | 13.4     | 3.8            |
| Mangochi   | 1453  | 64.0                                      | 25.2      | 8.2      | 2.6            |
| Machinga   | 963   | 53.9                                      | 31.5      | 5.8      | 8.8            |
| Zomba      | 2297  | 50.5                                      | 31.5      | 8.1      | 10.0           |
| Phalombe   | 679   | 52.0                                      | 39.3      | 4.6      | 4.1            |
| Mulanje    | 1223  | 47.8                                      | 39.9      | 11.3     | 1.0            |
| Thyolo     | 1504  | 56.2                                      | 31.1      | 5.2      | 7.6            |
| Blantyre   | 3640  | 42.6                                      | 37.2      | 7.9      | 12.3           |
| Mwanza     | 318   | 47.8                                      | 40.6      | 11.3     | 0.3            |
| Chiradzulu | 781   | 50.7                                      | 32.7      | 7.9      | 8.7            |
| Chikwawa   | 887   | 67.1                                      | 25.7      | 3.4      | 3.8            |
| Nsanje     | 652   | 65.2                                      | 28.5      | 5.4      | 0.9            |
| Neno       | 253   | 20.6                                      | 27.3      | 5.9      | 46.2           |

#### 8.6.5 Reasons why some staff think they did not attend in-service training in last 1 year

The staff that had not attended any in-service training in the last 1 year before the census (N=15765) were asked to state why this was the case. The reasons (as perceived and reported by the respondents) are as shown in Figure 15 below. Generally the concerned staff felt there is favouritism and nepotism when choosing staff to go for in-service training (47%) and that some superiors do not consider or appreciate what the junior staff are doing.

Figure 15: Reasons why some staff (N=15,765) think they did not attend short-term courses in last 1 year preceding the census



## 8.7 Promotion History

### 8.7.1 Proportion of staff reporting ever promoted by Region, Zone and District

Promotion on the job is one of the key motivators for workers in all institutions as their earnings gradually increase as well as their official powers and recognition. The results of the Census reveal that 76 % (n=25672) of the health workers have never been promoted in their positions compared to only 24% (n=7798) who reported to have ever been promoted before (Table 66 below). No major differences were observed across Regions, Zones and Districts although some districts (Phalombe and Neno at 16%) recorded low proportions of staff that had ever been promoted before.

Table 66: Proportion of staff reporting to have ever been promoted disaggregated by Region, Zone and Districts

|                  | N     | Have you ever been promoted? |      |                |
|------------------|-------|------------------------------|------|----------------|
|                  |       | Yes                          | No   | No information |
| All Staff        | 33766 | 23.3                         | 76.2 | 0.6            |
| <b>Region</b>    |       |                              |      |                |
| North            | 5315  | 26.8                         | 72.8 | 0.5            |
| Centre           | 13082 | 22.7                         | 76.7 | 0.6            |
| South            | 15369 | 22.6                         | 76.8 | 0.6            |
| <b>Zone</b>      |       |                              |      |                |
| North            | 5315  | 26.8                         | 72.8 | 0.5            |
| Central East     | 4618  | 22.5                         | 77.4 | 0.0            |
| Central West     | 8464  | 22.8                         | 76.3 | 0.9            |
| South East       | 7334  | 20.5                         | 79.2 | 0.3            |
| South West       | 8035  | 24.5                         | 74.7 | 0.8            |
| <b>Districts</b> |       |                              |      |                |
| Chitipa          | 414   | 24.6                         | 75.4 | 0.0            |
| Karonga          | 677   | 29.5                         | 70.0 | 0.4            |
| Rumphi           | 724   | 28.7                         | 71.0 | 0.3            |
| Mzimba           | 2902  | 24.2                         | 75.3 | 0.6            |
| Nkhatabay        | 547   | 36.6                         | 63.1 | 0.4            |
| Likoma           | 51    | 23.5                         | 72.5 | 3.9            |
| Kasungu          | 1026  | 19.5                         | 80.4 | 0.1            |
| Nkhotakota       | 941   | 25.7                         | 74.3 | 0.0            |
| Ntchisi          | 492   | 30.5                         | 69.5 | 0.0            |
| Mchinji          | 976   | 25.8                         | 73.3 | 0.9            |
| Salima           | 932   | 21.8                         | 78.2 | 0.0            |
| Dowa             | 1227  | 20.0                         | 80.0 | 0.1            |
| Lilongwe         | 5140  | 23.5                         | 75.3 | 1.2            |
| Dedza            | 1233  | 19.6                         | 80.4 | 0.0            |
| Ntcheu           | 1115  | 20.4                         | 79.5 | 0.2            |
| Balaka           | 719   | 18.2                         | 79.1 | 2.6            |
| Mangochi         | 1453  | 17.1                         | 82.8 | 0.1            |
| Machinga         | 963   | 20.8                         | 79.1 | 0.1            |
| Zomba            | 2297  | 25.7                         | 74.1 | 0.1            |
| Phalombe         | 679   | 15.8                         | 84.2 | 0.0            |
| Mulanje          | 1223  | 18.2                         | 81.8 | 0.0            |
| Thyolo           | 1504  | 18.2                         | 81.1 | 0.7            |
| Blantyre         | 3640  | 26.6                         | 71.9 | 1.4            |
| Mwanza           | 318   | 37.1                         | 62.6 | 0.3            |
| Chiradzulu       | 781   | 23.3                         | 76.7 | 0.0            |
| Chikwawa         | 887   | 26.6                         | 73.4 | 0.0            |
| Nsanje           | 652   | 23.3                         | 76.7 | 0.0            |
| Neno             | 83.8  | 16.2                         | 0.0  | 253            |

### 8.7.2 Proportion reporting ever promoted by facility ownership, sex of staff, location of work and level care of their facilities

Generally, staff promotion was reported low among those working in the private sector and those working in CHAM facilities (17%, respectively). The staff working in rural recorded lower promotion (17%) compared to those working in urban areas (29%) and semi-urban areas (33%). There was generally no major difference between male and female staff with regard to promotion prospects (22% of the males and 25% of the females). Primary care level facilities (16%) appear to provide less promotional opportunities to health workers than the other types (Table 67).

Table 67: Proportion of staff reported to have ever been promoted disaggregated by region, zone, level of care and facility ownership

|                          | N     | Have you ever been promoted before? |      |                |
|--------------------------|-------|-------------------------------------|------|----------------|
|                          |       | Yes                                 | No   | No information |
| <b>All staff</b>         | 33766 | 23.3                                | 76.2 | 0.6            |
| Government               | 21754 | 26.9                                | 72.6 | 0.5            |
| CHAM                     | 8399  | 16.5                                | 83.4 | 0.1            |
| Others                   | 3613  | 17.1                                | 80.8 | 2.0            |
| <b>Sex of staff</b>      |       |                                     |      |                |
| Male                     | 19047 | 22.3                                | 77.2 | 0.6            |
| Female                   | 14719 | 24.6                                | 74.8 | 0.6            |
| <b>Location of work</b>  |       |                                     |      |                |
| Urban                    | 8224  | 29.0                                | 69.6 | 1.4            |
| Rural                    | 17789 | 16.6                                | 83.2 | 0.2            |
| Semi-Urban               | 7753  | 32.6                                | 66.9 | 0.5            |
| <b>Level of facility</b> |       |                                     |      |                |
| Primary                  | 15089 | 16.1                                | 83.7 | 0.3            |
| Secondary                | 13258 | 27.4                                | 72.2 | 0.4            |
| Tertiary                 | 2953  | 37.8                                | 61.4 | 0.8            |
| Others                   | 2466  | 27.9                                | 69.3 | 2.8            |

### 8.7.3 Proportion reporting ever promoted by category of staff

Promotion on the job was recorded highest among Public Health Workers (50%) followed by Nurses (43%) and was lowest among HSAs (9%). A third of the ward attendants (31%) reported to have ever been promoted whereas 69% said that they had never been promoted at all. Details are presented in Table 68 below. While some workers have never been promoted on the basis that they do not qualify either because they have just been recruited (HSAs for example), are on probation/contract/contract basis or do not possess the requisite qualifications, the majority of the other workers (>61%) do not know why they have not been promoted.

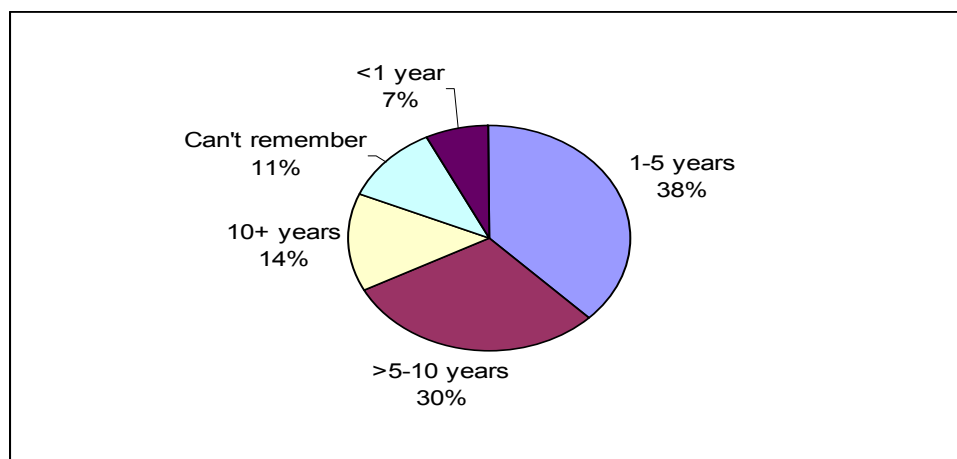
Table 68: Proportion of staff reporting to have been promoted in their positions disaggregated by category of staff

| Category of Staff        | N     | Have you ever been promoted before? |      |                |
|--------------------------|-------|-------------------------------------|------|----------------|
|                          |       | Yes                                 | No   | No information |
| All staff                | 33766 | 23.3                                | 76.2 | 0.6            |
| Physicians               | 248   | 19.4                                | 71.4 | 9.3            |
| Clinical Officers        | 698   | 30.4                                | 68.6 | 1.0            |
| Medical Assistants       | 711   | 18.1                                | 81.7 | 0.1            |
| Nurses                   | 4450  | 43.1                                | 56.1 | 0.8            |
| Technicians              | 1314  | 31.1                                | 68.8 | 0.2            |
| Lecturers/Researchers    | 102   | 24.5                                | 75.5 | 0.0            |
| HSAs                     | 10046 | 9.4                                 | 90.5 | 0.1            |
| Hospital Attendants      | 5681  | 31.2                                | 68.8 | 0.0            |
| Public Health Workers    | 326   | 50.0                                | 49.7 | 0.3            |
| Semi-skilled Workers     | 369   | 24.7                                | 75.1 | 0.3            |
| Management/Support Staff | 9739  | 22.0                                | 77.6 | 0.3            |
| Not Cited                | 82    | 0.0                                 | 0.0  | 100.0          |

#### 8.7.4 Length of time from last promotion

Those staff that had been promoted were asked to state when they were promoted the last time. The findings on this are presented in Figure 16 below. Approximately one-third (30% of 7798 workers) were promoted in the last 5-10 years, 38% in the last 1-5 years while 14% were last promoted more than 10 years ago.

Figure 16: Period from last promotion on the job among staff ever promoted (N=7798)



#### 8.8 Staff attrition

This section discusses staff attrition including the aspect of moonlighting in search for additional salaries as well as personnel completely withdrawing their services in pursuit of better paying jobs. The reason for moonlighting and completely changing jobs could be the search for higher salaries as well as better conditions of work. In order to get this information, the health personnel were first asked if they worked in other health or non-health related facilities.

### 8.8.1 Proportion reporting to have ever changed jobs

The health workers were asked to state if they had ever changed jobs for another facility providing health services a question to which 8% said they had ever done so. As the findings presented in Table 69 below illustrate, the qualified health professionals namely Physicians, Nurses/Midwives, Medical assistants, Clinical officers and Researchers are more likely to have ever changed employers than the other cadres of staff.

Table 69: Proportion of staff reporting to have changed jobs within and out of the health sector

| Category of staff        | N     | % of staff that have ever moved |               |
|--------------------------|-------|---------------------------------|---------------|
|                          |       | Within Health Sector            | Out of sector |
| All staff                | 33766 | 7.8                             | 1.7           |
| Physicians               | 248   | 16.9                            | 0.4           |
| Clinical Officers        | 698   | 26.6                            | 1.1           |
| Medical Assistants       | 711   | 20.7                            | 0.8           |
| Nurses                   | 4450  | 25.4                            | 0.9           |
| Technicians              | 1314  | 14.8                            | 1.1           |
| Lecturers/Researchers    | 102   | 21.6                            | 2.0           |
| HSAs                     | 10046 | 2.9                             | 1.6           |
| Hospital Attendants      | 5681  | 3.4                             | 1.1           |
| Public Health Workers    | 326   | 6.7                             | 0.6           |
| Semi-skilled Workers     | 369   | 8.1                             | 2.4           |
| Management/Support Staff | 9739  | 3.8                             | 2.8           |
| Not Cited                | 82    | 0.0                             | 0.0           |

With regard to movement out of the health sector, the findings of the census showed that management and support staff and Lecturers/Researchers were relatively more likely to have moved out of the health sector at some point. Details are presented in Table 69 above.

### 8.8.2 Movement across employers/service providers within the health sector

Table 70 below shows the movement status between first employers and current employers of the staff who reported to have ever changed jobs. Of the 21,679 health workers who were working in government at the time of the census, 94% started their work in government, 5% started their work in a CHAM facility while the rest started their work in other facilities. Of the 8,390 staff who were working in CHAM facilities at the time of the census, 35% started their work in government while 64% started their work in a CHAM facility. As would be observed from Table 70 below, most of the staff who were found working NGOs, private facilities and clinics run by statutory organisations and companies started their work in government.

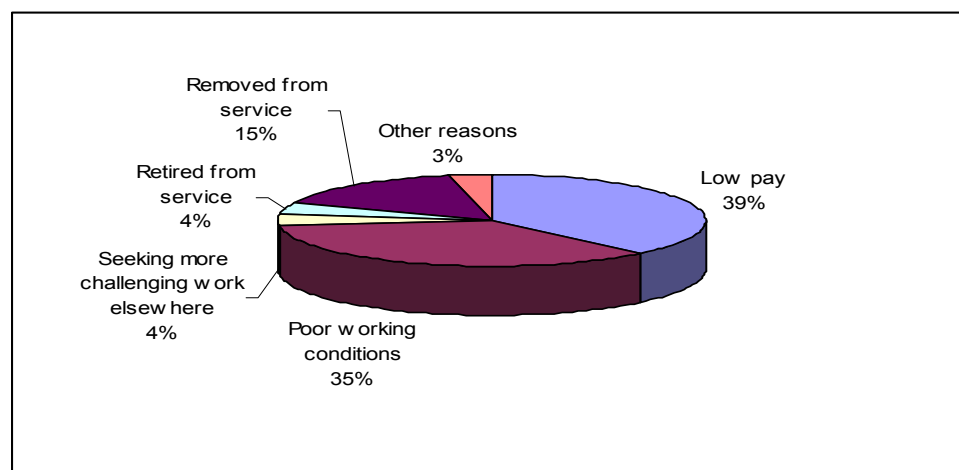
Table 70: Movement of health workers across service providers within the health sector

| Current employer       | First Employer |      |      |         |           | Total |
|------------------------|----------------|------|------|---------|-----------|-------|
|                        | Government     | CHAM | NGO  | Private | Statutory |       |
| Government             | 94.2           | 4.9  | 0.4  | 0.4     | 0.2       | 21679 |
| CHAM                   | 34.6           | 64.3 | 0.5  | 0.5     | 0.0       | 8390  |
| NGO                    | 60.2           | 12.9 | 23.9 | 2.9     | 0.1       | 1085  |
| Private for profit     | 59.6           | 10.4 | 1.2  | 28.5    | 0.4       | 1687  |
| Statutory Organisation | 88.2           | 3.6  | 0.9  | 0.2     | 7.1       | 466   |
| Company                | 67.7           | 10.1 | 1.7  | 15.2    | 5.4       | 297   |
| All Staff              | 76.2           | 20.3 | 1.2  | 2.0     | 0.3       | 33604 |

### 8.8.3 Reasons why some staff left the government sector

Health workers who reported to have worked in government before and had left for other employers (N=806) were asked to state how long they worked in government before moving and the main reason why they decided to leave government. The findings on this showed that on average, staff had worked an average of 4.4 years and there was no difference on the basis of gender. Poor working conditions and low motivation (no incentives, no promotion and not being recognized) dominated the list of reasons that were provided (35%). Related to this was the issue of low pay in government which was cited by slightly more than a third of the workers (39%). Some staff had left government in search of more challenging work with the other employers (4%) or were removed from the government service (15%). These findings are presented in Figure 17 below.

Figure 17: Main reasons why some health left government for other employers



## 8.9 Average Basic Salary among Key Health Personnel

The health workers were asked to provide information regarding their basic monthly salaries and any allowances which they get from their employers or from elsewhere. The health workers were asked to bring their most recent pay slips from which this information could be copied. This was one the most difficult pieces of information to collect as not many were willing to disclose their salaries. As such the information presented in this section needs to be treated with caution. The computation in this

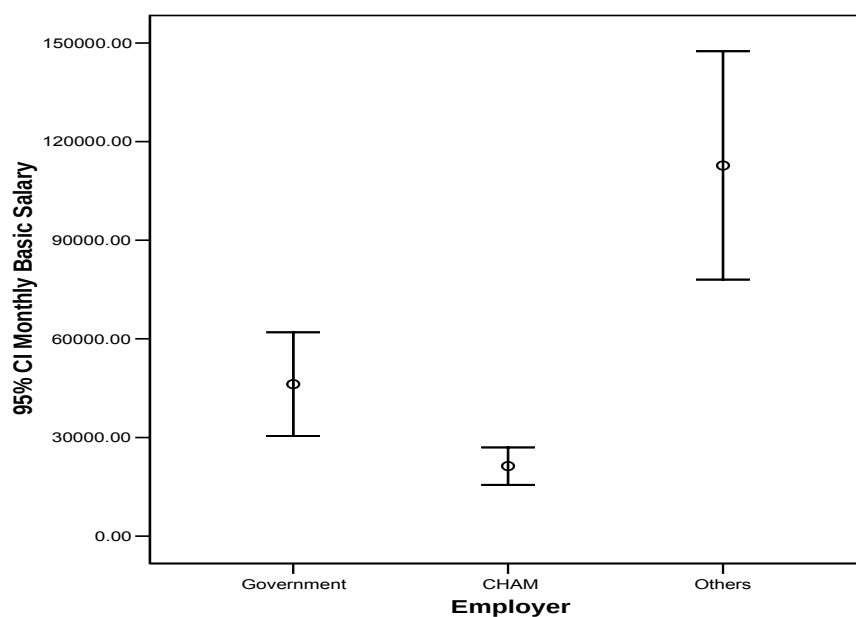


section has been done only for Physicians, Clinical Officers, Medical Assistants and Nurses.

### 8.9.1 Mean Salaries among Physicians

Figure 18 below shows the 95% confidence interval (CI) for mean of basic monthly salaries among Physicians working in government, CHAM and in the private sector. Generally, Physicians working in the private sector (private for profit, statutory organisations, NGOs and companies) get significantly much higher salaries compared with their colleagues in government and CHAM. The CI for mean basic monthly salaries among Physicians working in government was K30,000 to K62,000 with K46,000 as the point estimate. In CHAM, the CI was lower at K20,000 to K29,000 whereas in the private sector the CI was K75,000 to K145,000.

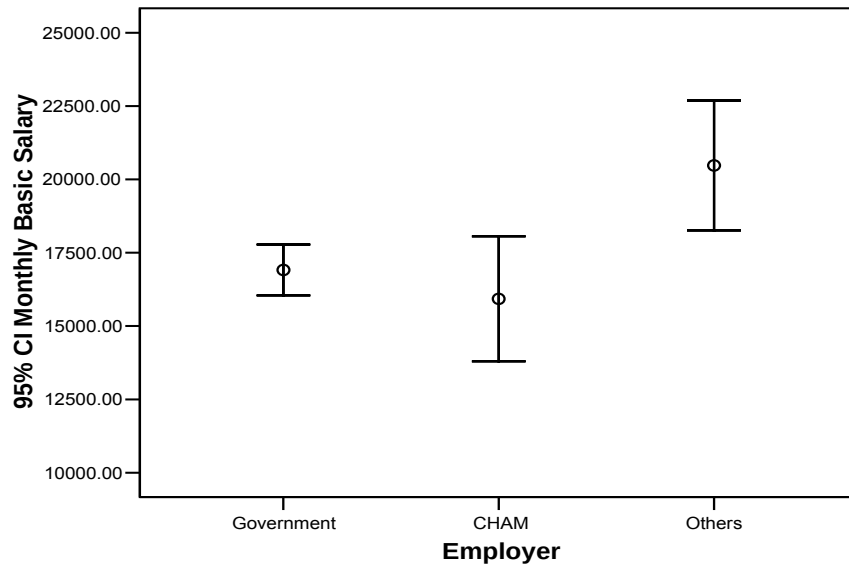
Figure 18: Average and 95% CI for average basic monthly salary among Physicians disaggregated by employer



### Clinical Officers

The CI for mean basic monthly salaries among Clinical Officers (C/Os) working in government, CHAM and the private sector are shown in Figure 19 below. No significant differences were observed between C/Os working in government and those working in CHAM (shown by the overlapping whiskers in Figure 19) but significant differences were observed with the C/Os working in the private sector.

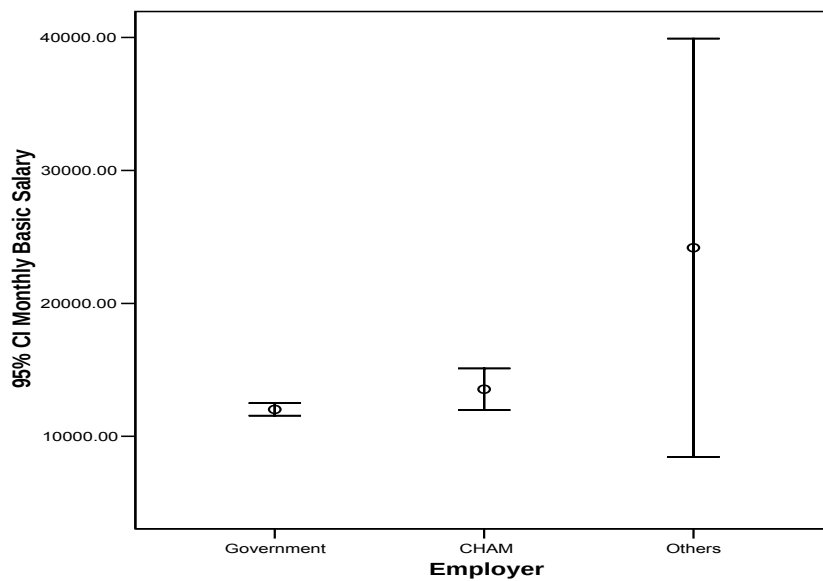
Figure 19: Average and 95% CI for average basic monthly salary among Clinical Officers disaggregated by employer



### Medical Assistants

Figure 20 below shows the CI for mean basic monthly salaries among Medical Assistants (M/As) working in government, CHAM and the private sector. As the findings showed, the CI among M/As working in government was shorter implying that most M/As were getting almost same amount of basic salaries on average (~K12000-15000/month) whereas among M/As working in had a huge CI and huge gap. However, the CI of mean basic monthly salaries were not significantly different when employer was the separating variable (shown by the overlapping whiskers in Figure 20 below).

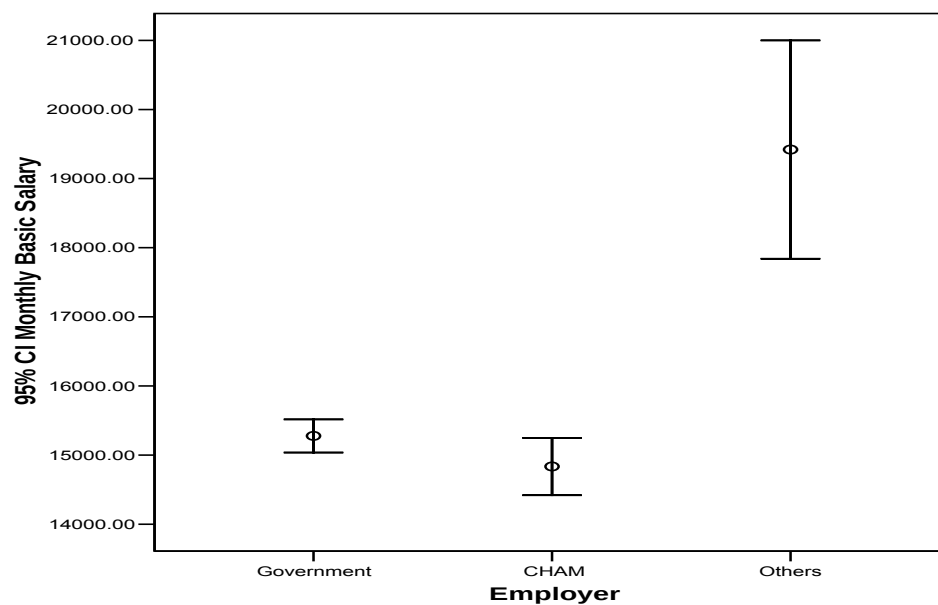
Figure 20: Average and 95% CI for average basic monthly salary among Medical Assistants disaggregated by employer



## Nurses

The CI for mean basic monthly salaries among Nurses working in government, CHAM and the private sector are shown in Figure 21 below. Generally the mean basic monthly salaries were not significantly different between Nurses working in government and those working in CHAM but were significantly different with those working in the private sector. Nurses working in government were on average getting K15,300 (CI: K15,100 to K15,500) per month as basic salary compared to K19,200 on (CI: K18,000 to K20,400) average among Nurses working in the private sector.

*Figure 21: Average and 95% CI for average basic monthly salary among Nurses disaggregated by employer*



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Annex 1: Detailed distribution of Physicians in Malawi (n)

|                               | District |         |        |        |           |         |         |        |      |          |       |        |          |          |       |          |         |        |          |            |          |      | Total |     |
|-------------------------------|----------|---------|--------|--------|-----------|---------|---------|--------|------|----------|-------|--------|----------|----------|-------|----------|---------|--------|----------|------------|----------|------|-------|-----|
|                               | Chitipa  | Karonga | Rumphi | Mzimba | Nkhatabay | Ntchisi | Mchinji | Salima | Dowa | Lilongwe | Dedza | Ntcheu | Mangochi | Machinga | Zomba | Phalombe | Mulanje | Thyolo | Blantyre | Chiradzulu | Chikwawa | Neno |       |     |
| General Practitioners         | 1        | 4       | 2      | 14     | 2         | 3       | 1       | 3      | 2    | 3        | 66    | 3      | 3        | 6        | 1     | 8        | 1       | 1      | 4        | 60         | 1        | 1    | 1     | 191 |
| Radiology                     | 0        | 0       | 0      | 0      | 0         | 0       | 0       | 0      | 0    | 0        | 0     | 0      | 0        | 0        | 0     | 0        | 0       | 0      | 1        | 0          | 0        | 0    | 1     |     |
| Surgery                       | 0        | 0       | 0      | 0      | 0         | 0       | 0       | 0      | 0    | 0        | 5     | 0      | 0        | 0        | 0     | 0        | 0       | 1      | 4        | 0          | 0        | 0    | 10    |     |
| Obstetrics and<br>Gynaecology | 0        | 0       | 0      | 0      | 0         | 0       | 0       | 0      | 0    | 0        | 2     | 0      | 0        | 0        | 0     | 1        | 0       | 0      | 1        | 3          | 0        | 0    | 0     | 7   |
| Pediatrics                    | 0        | 0       | 0      | 0      | 0         | 0       | 0       | 0      | 0    | 0        | 2     | 0      | 0        | 0        | 0     | 1        | 0       | 0      | 4        | 0          | 0        | 1    | 8     |     |
| Ophthalmology                 | 0        | 0       | 0      | 0      | 0         | 0       | 0       | 0      | 0    | 0        | 1     | 0      | 0        | 0        | 0     | 0        | 0       | 0      | 1        | 0          | 0        | 0    | 2     |     |
| Psychiatry                    | 0        | 0       | 0      | 0      | 0         | 0       | 0       | 0      | 0    | 0        | 0     | 0      | 0        | 0        | 0     | 1        | 0       | 0      | 0        | 0          | 0        | 0    | 1     |     |
| ENT                           | 0        | 0       | 0      | 0      | 0         | 0       | 0       | 0      | 0    | 0        | 0     | 0      | 0        | 0        | 0     | 0        | 0       | 0      | 1        | 0          | 0        | 0    | 1     |     |
| Physician                     | 0        | 0       | 0      | 0      | 0         | 0       | 0       | 0      | 0    | 0        | 3     | 0      | 0        | 0        | 0     | 1        | 0       | 0      | 3        | 0          | 0        | 0    | 7     |     |
| Urology                       | 0        | 0       | 0      | 0      | 0         | 0       | 0       | 0      | 0    | 0        | 2     | 0      | 0        | 0        | 0     | 0        | 0       | 0      | 0        | 0          | 0        | 0    | 2     |     |
| Anesthesiology                | 0        | 0       | 0      | 0      | 0         | 0       | 0       | 0      | 0    | 0        | 1     | 0      | 0        | 0        | 0     | 0        | 0       | 0      | 1        | 0          | 0        | 0    | 2     |     |
| Osteopathy                    | 0        | 0       | 0      | 0      | 0         | 0       | 0       | 0      | 0    | 0        | 0     | 0      | 0        | 0        | 0     | 0        | 0       | 0      | 1        | 0          | 0        | 0    | 1     |     |
| Dental                        | 0        | 0       | 0      | 1      | 0         | 0       | 0       | 0      | 0    | 0        | 2     | 0      | 0        | 0        | 0     | 1        | 0       | 0      | 1        | 0          | 0        | 0    | 5     |     |
| Orthopedics                   | 0        | 0       | 0      | 0      | 0         | 0       | 0       | 0      | 0    | 0        | 1     | 0      | 0        | 0        | 0     | 0        | 0       | 0      | 0        | 0          | 0        | 0    | 1     |     |
| Hematology                    | 0        | 0       | 0      | 0      | 0         | 0       | 0       | 0      | 0    | 0        | 0     | 0      | 0        | 0        | 0     | 0        | 0       | 0      | 1        | 0          | 0        | 0    | 1     |     |
| Physiotherapy                 | 0        | 0       | 0      | 0      | 0         | 0       | 0       | 0      | 0    | 0        | 1     | 0      | 0        | 0        | 0     | 0        | 0       | 0      | 1        | 0          | 0        | 0    | 2     |     |
| Anatomy                       | 0        | 0       | 0      | 0      | 0         | 0       | 0       | 0      | 0    | 0        | 0     | 0      | 0        | 0        | 0     | 0        | 0       | 0      | 1        | 0          | 0        | 0    | 1     |     |
| Pathology                     | 0        | 0       | 0      | 0      | 0         | 0       | 0       | 0      | 0    | 0        | 0     | 0      | 0        | 0        | 0     | 0        | 0       | 0      | 2        | 0          | 0        | 0    | 2     |     |
| Optician                      | 0        | 0       | 0      | 0      | 0         | 1       | 0       | 0      | 0    | 0        | 0     | 0      | 0        | 0        | 1     | 0        | 0       | 0      | 0        | 0          | 0        | 0    | 2     |     |
| Immunology                    | 0        | 1       | 0      | 0      | 0         | 0       | 0       | 0      | 0    | 0        | 0     | 0      | 0        | 0        | 0     | 0        | 0       | 0      | 0        | 0          | 0        | 0    | 1     |     |
| Total                         | 1        | 5       | 2      | 15     | 2         | 4       | 1       | 3      | 2    | 3        | 86    | 3      | 3        | 6        | 1     | 14       | 1       | 1      | 7        | 84         | 1        | 1    | 2     | 248 |

## Annex 2: Detailed Distribution of Technicians in Malawi

|                |     | Districts |         |        |        |           |        |         |            |         |         |        |      |          |       |        |        |          |          |       |          |         |        |          |        |            |          |        |      |       |      |
|----------------|-----|-----------|---------|--------|--------|-----------|--------|---------|------------|---------|---------|--------|------|----------|-------|--------|--------|----------|----------|-------|----------|---------|--------|----------|--------|------------|----------|--------|------|-------|------|
|                |     | Chitipa   | Karonga | Rumphi | Mzimba | Nkhatabay | Likoma | Kasungu | Nkhosakota | Ntchisi | Mchinji | Salima | Dowa | Lilongwe | Dedza | Ntcheu | Balaka | Mangochi | Machinga | Zomba | Phalombe | Mulanje | Thyolo | Blantyre | Mwanza | Chirodzulu | Chikwawa | Nsanje | Neno |       |      |
|                | All | n         | 13      | 29     | 11     | 138       | 12     | 3       | 20         | 35      | 9       | 32     | 25   | 31       | 276   | 32     | 29     | 22       | 53       | 26    | 100      | 22      | 36     | 33       | 227    | 14         | 26       | 25     | 24   | 11    | 1314 |
|                | %   | 1.0       | 2.2     | 0.8    | 10.5   | 0.9       | 0.2    | 1.5     | 2.7        | 0.7     | 2.4     | 1.9    | 2.4  | 21.0     | 2.4   | 2.2    | 1.7    | 4.0      | 2.0      | 7.6   | 1.7      | 2.7     | 2.5    | 17.3     | 1.1    | 2.0        | 1.9      | 1.8    | 0.8  | 100.0 |      |
| Laboratory     | n   | 5         | 12      | 4      | 45     | 3         | 2      | 2       | 13         | 1       | 14      | 8      | 13   | 100      | 12    | 11     | 7      | 17       | 8        | 42    | 9        | 11      | 14     | 88       | 5      | 11         | 8        | 9      | 7    | 481   |      |
|                | %   | 1.0       | 2.5     | 0.8    | 9.4    | 0.6       | 0.4    | 0.4     | 2.7        | 0.2     | 2.9     | 1.7    | 2.7  | 20.8     | 2.5   | 2.3    | 1.5    | 3.5      | 1.7      | 8.7   | 1.9      | 2.3     | 2.9    | 18.3     | 1.0    | 2.3        | 1.7      | 1.9    | 1.5  | 100.0 |      |
| Radiography    | n   | 0         | 0       | 0      | 0      | 0         | 0      | 0       | 1          | 0       | 0       | 0      | 0    | 2        | 0     | 0      | 0      | 1        | 0        | 0     | 0        | 0       | 0      | 3        | 1      | 1          | 0        | 0      | 0    | 9     |      |
|                | %   | 0.0       | 0.0     | 0.0    | 0.0    | 0.0       | 0.0    | 0.0     | 11.1       | 0.0     | 0.0     | 0.0    | 0.0  | 22.2     | 0.0   | 0.0    | 0.0    | 11.1     | 0.0      | 0.0   | 0.0      | 0.0     | 0.0    | 33.3     | 11.1   | 11.1       | 0.0      | 0.0    | 0.0  | 100.0 |      |
| Dental         | n   | 2         | 5       | 2      | 28     | 2         | 0      | 4       | 1          | 1       | 5       | 5      | 2    | 54       | 7     | 6      | 6      | 12       | 9        | 12    | 5        | 4       | 6      | 24       | 2      | 3          | 3        | 4      | 1    | 215   |      |
|                | %   | 0.9       | 2.3     | 0.9    | 13.0   | 0.9       | 0.0    | 1.9     | 0.5        | 0.5     | 2.3     | 2.3    | 0.9  | 25.1     | 3.3   | 2.8    | 2.8    | 5.6      | 4.2      | 5.6   | 2.3      | 1.9     | 2.8    | 11.2     | 0.9    | 1.4        | 1.4      | 1.9    | 0.5  | 100.0 |      |
| Pharmacy       | n   | 2         | 5       | 3      | 30     | 2         | 1      | 6       | 13         | 2       | 6       | 4      | 6    | 63       | 8     | 8      | 4      | 18       | 5        | 23    | 4        | 13      | 5      | 47       | 2      | 6          | 5        | 4      | 3    | 298   |      |
|                | %   | 0.7       | 1.7     | 1.0    | 10.1   | 0.7       | 0.3    | 2.0     | 4.4        | 0.7     | 2.0     | 1.3    | 2.0  | 21.1     | 2.7   | 2.7    | 1.3    | 6.0      | 1.7      | 7.7   | 1.3      | 4.4     | 1.7    | 15.8     | 0.7    | 2.0        | 1.7      | 1.3    | 1.0  | 100.0 |      |
| Physiotherapy  | n   | 0         | 0       | 0      | 0      | 0         | 0      | 0       | 0          | 0       | 0       | 0      | 0    | 3        | 0     | 0      | 0      | 0        | 0        | 0     | 0        | 0       | 0      | 6        | 0      | 0          | 0        | 0      | 0    | 9     |      |
|                | %   | 0.0       | 0.0     | 0.0    | 0.0    | 0.0       | 0.0    | 0.0     | 0.0        | 0.0     | 0.0     | 0.0    | 0.0  | 33.3     | 0.0   | 0.0    | 0.0    | 0.0      | 0.0      | 0.0   | 0.0      | 0.0     | 0.0    | 66.7     | 0.0    | 0.0        | 0.0      | 0.0    | 0.0  | 100.0 |      |
| Optical        | n   | 0         | 0       | 0      | 0      | 0         | 0      | 0       | 1          | 0       | 0       | 0      | 0    | 1        | 0     | 0      | 1      | 0        | 0        | 1     | 0        | 0       | 1      | 2        | 0      | 0          | 0        | 0      | 0    | 7     |      |
|                | %   | 0.0       | 0.0     | 0.0    | 0.0    | 0.0       | 0.0    | 0.0     | 14.3       | 0.0     | 0.0     | 0.0    | 0.0  | 14.3     | 0.0   | 0.0    | 14.3   | 0.0      | 0.0      | 14.3  | 0.0      | 0.0     | 14.3   | 28.6     | 0.0    | 0.0        | 0.0      | 0.0    | 0.0  | 100.0 |      |
| Anesthetic     | n   | 1         | 3       | 1      | 6      | 2         | 0      | 4       | 4          | 2       | 3       | 2      | 3    | 11       | 3     | 3      | 2      | 0        | 2        | 8     | 2        | 2       | 4      | 11       | 1      | 1          | 4        | 3      | 0    | 88    |      |
|                | %   | 1.1       | 3.4     | 1.1    | 6.8    | 2.3       | 0.0    | 4.5     | 4.5        | 2.3     | 3.4     | 2.3    | 3.4  | 12.5     | 3.4   | 3.4    | 2.3    | 0.0      | 2.3      | 9.1   | 2.3      | 2.3     | 4.5    | 12.5     | 1.1    | 1.1        | 4.5      | 3.4    | 0.0  | 100.0 |      |
| Ophthalmology  | n   | 0         | 1       | 0      | 2      | 1         | 0      | 0       | 0          | 0       | 0       | 2      | 1    | 3        | 0     | 0      | 0      | 1        | 0        | 1     | 0        | 1       | 0      | 2        | 0      | 0          | 1        | 1      | 0    | 17    |      |
|                | %   | 0.0       | 5.9     | 0.0    | 11.8   | 5.9       | 0.0    | 0.0     | 0.0        | 0.0     | 0.0     | 11.8   | 5.9  | 17.6     | 0.0   | 0.0    | 0.0    | 5.9      | 0.0      | 5.9   | 0.0      | 5.9     | 0.0    | 11.8     | 0.0    | 0.0        | 5.9      | 5.9    | 0.0  | 100.0 |      |
| Orthopedic     | n   | 1         | 1       | 1      | 12     | 1         | 0      | 2       | 1          | 1       | 2       | 1      | 2    | 14       | 1     | 0      | 1      | 2        | 1        | 4     | 0        | 1       | 1      | 19       | 2      | 1          | 1        | 1      | 0    | 74    |      |
|                | %   | 1.4       | 1.4     | 1.4    | 16.2   | 1.4       | 0.0    | 2.7     | 1.4        | 1.4     | 2.7     | 1.4    | 2.7  | 18.9     | 1.4   | 0.0    | 1.4    | 2.7      | 1.4      | 5.4   | 0.0      | 1.4     | 1.4    | 25.7     | 2.7    | 1.4        | 1.4      | 1.4    | 0.0  | 100.0 |      |
| Radiography    | n   | 2         | 1       | 0      | 15     | 1         | 0      | 2       | 1          | 2       | 2       | 3      | 4    | 21       | 1     | 1      | 1      | 2        | 1        | 8     | 2        | 4       | 2      | 19       | 1      | 3          | 2        | 2      | 0    | 103   |      |
|                | %   | 1.9       | 1.0     | 0.0    | 14.6   | 1.0       | 0.0    | 1.9     | 1.0        | 1.9     | 1.9     | 2.9    | 3.9  | 20.4     | 1.0   | 1.0    | 1.0    | 1.9      | 1.0      | 7.8   | 1.9      | 3.9     | 1.9    | 18.4     | 1.0    | 2.9        | 1.9      | 1.9    | 0.0  | 100.0 |      |
| Rehabilitation | n   | 0         | 0       | 0      | 0      | 0         | 0      | 0       | 0          | 0       | 0       | 0      | 0    | 4        | 0     | 0      | 0      | 0        | 0        | 1     | 0        | 0       | 0      | 6        | 0      | 0          | 0        | 0      | 0    | 11    |      |
|                | %   | 0.0       | 0.0     | 0.0    | 0.0    | 0.0       | 0.0    | 0.0     | 0.0        | 0.0     | 0.0     | 0.0    | 0.0  | 36.4     | 0.0   | 0.0    | 0.0    | 0.0      | 0.0      | 9.1   | 0.0      | 0.0     | 0.0    | 54.5     | 0.0    | 0.0        | 0.0      | 0.0    | 0.0  | 100.0 |      |

*Annex 3: List of Registered Medical Practitioners missed by the census*

| <b>REG. NO</b> | <b>NAME</b>              |
|----------------|--------------------------|
| MCM/MP/0879    | Amin, Nishal P.          |
| MCM/MP/0785    | Aryee, Joseph J.H.       |
| MCM/MP/0770    | Banda, Christopher M.    |
| MCM/MP/0949    | Banda, Francis M.        |
| MCM/MP/0972    | Banda, Ndazona P.E.K     |
| MCM/MP/0438    | Bandawe, Lyeester R.     |
| MCM/MP/1051    | Barango, Prebo F.        |
| MCM/MP/0992    | Beekers, Audrey M.H.     |
| MCM/MP/1015    | Bestagini, Piero         |
| MCM/MP/0243    | Bhuptani, G.C.           |
| MCM/MP/0882    | Birbeek, Gretehen I.     |
| MCM/MP/0944    | Bonongwe, Phylos         |
| MCM/MP/0596    | Brooks, Christopher      |
| MCM/MP/1022    | Brunotte, Katharina E.   |
| MCM/MP/0997    | Bunn, Mary R.            |
| MCM/MP/1231    | Buvenge, Jean G.         |
| MCM/MP/0523    | Chalira, Chipso          |
| MCM/MP/0802    | Chaudhry, Humera A.      |
| MCM/MP/0889    | Chibaka, Smith W.D.      |
| MCM/MP/0631    | Chibwana, Cecilia        |
| MCM/MP/0434    | Chilambo, Wajilovia      |
| MCM/MP/0994    | Chimalizeni, Yamikani F. |
| MCM/MP/0984    | Chinula, Lameck          |
| MCM/MP/0689    | Chiwaula, Lawrence M.D.  |
| MCM/MP/0807    | Chiwaya, Kwame W.        |
| MCM/MP/1274    | Chu, Steven Q.           |
| MCM/MP/1085    | Chunda, Reginald G.      |
| MCM/MP/1239    | Damas, Deogratias A.     |
| MCM/MP/1223    | Daniel, Byamukama        |
| MCM/MP/1091    | De Brahandere, Isabel    |
| MCM/MP/0034    | De Johnson, Maria I.M.   |
| MCM/MP/0990    | De Vargara, Andrew       |
| MCM/MP/1066    | Faleye, Toluwani O.K.    |
| MCM/MP/1063    | Gasparini, Francesca     |
| MCM/MP/0542    | Gaston, Andrew C.R.      |
| MCM/MP/0013    | Gatrad, Mahomed I.       |
| MCM/MP/0014    | Ghumra, Abdul G.A.       |
| MCM/MP/0908    | Glover, Simon J.         |
| MCM/MP/1092    | Haeseker, Michiel B.     |
| MCM/MP/1252    | Hattingh, Johann A.      |
| MCM/MP/1230    | Heinrich, Norbert        |
| MCM/MP/1111    | Hiba, Amr I.A.E          |
| MCM/MP/1018    | Hogenschurz, Rolandd J.  |
| MCM/MP/1016    | Hyde, Lisa J.            |
| MCM/MP/0938    | Jiskoot, Peter W.        |
| MCM/MP/0774    | Joaki, George R.         |
| MCM/MP/0609    | Joshua, Prema            |
| MCM/MP/0766    | Kabudula, Martha         |
| MCM/MP/0021    | Kahumbe, Charles F.      |

|             |                          |
|-------------|--------------------------|
| MCM/MP/1097 | Kalengo, Stapaël A.S.    |
| MCM/MP/0779 | Kalilani, Linda V.       |
| MCM/MP/1068 | Kapito-Tembo, Atupele    |
| MCM/MP/1021 | Kasmani, Mahomed I.M     |
| MCM/MP/1241 | Katamba, Kiwanuka W.     |
| MCM/MP/0398 | Katenga, Chimangu M.     |
| MCM/MP/0809 | Kawaza, Kondwani M.D.    |
| MCM/MP/0498 | Khemani, Chandra         |
| MCM/MP/0759 | Laufer, Mirjam K.        |
| MCM/MP/1246 | Laurens, Mathew B.       |
| MCM/MP/1064 | Leonardo, Palombi        |
| MCM/MP/0951 | Liscano, Marina I.       |
| MCM/MP/0027 | Lorgat, Gulam M.         |
| MCM/MP/0909 | Lubega, Nicholas         |
| MCM/MP/1069 | Lutwama, George W.       |
| MCM/MP/0985 | Madhlopa, Victor B.      |
| MCM/MP/0530 | Magombo, Francis         |
| MCM/MP/0890 | Mahari, Maxwell          |
| MCM/MP/0590 | Maleta, Kenneth M.       |
| MCM/MP/1073 | Mankhambo, Limangeni     |
| MCM/MP/1007 | Marcella, Sacco          |
| MCM/MP/0652 | Martinson, Francis E. A. |
| MCM/MP/0935 | M'baya, Bridon           |
| MCM/MP/1276 | Mbaididje, Leonard B.    |
| MCM/MP/1060 | Mbiya, Roman M.          |
| MCM/MP/0600 | Mdolo, Austin E.         |
| MCM/MP/1250 | Milner, Jr. Danny A.     |
| MCM/MP/0591 | Mkandawire, Winston      |
| MCM/MP/0559 | Mkumbwa, Albert W.       |
| MCM/MP/0439 | Mlombe, Yohannie B.      |
| MCM/MP/0786 | Motta, Gladys Y.B.       |
| MCM/MP/0986 | Moyo, Vincent V.P.       |
| MCM/MP/0712 | Msyamboza, Kelias P.     |
| MCM/MP/0617 | Mtika, Vincent D.G.      |
| MCM/MP/0036 | Mukadam, Mahomed A.      |
| MCM/MP/0037 | Mukadam, Rukiya M.       |
| MCM/MP/0634 | Muula, Adamson S.        |
| MCM/MP/1070 | Mvalo, Tisungane K.T.    |
| MCM/MP/0813 | Mwaponya, Martin M.      |
| MCM/MP/0756 | Namarika, Dan C.         |
| MCM/MP/0415 | Namboya, Felix L.        |
| MCM/MP/0983 | Ng'ambi, Tamiwe K        |
| MCM/MP/0792 | Ngoie, Leonard B.        |
| MCM/MP/0765 | Ngoma, Jonathan W.Z.     |
| MCM/MP/0690 | Ng'oma, Kondwani C.      |
| MCM/MP/0713 | Ngoma, Tionge M.         |
| MCM/MP/0996 | Nkhoma, Minyanga J.      |
| MCM/MP/0988 | Nutma, Tineke E.         |
| MCM/MP/0833 | Nyirenda, Mulinda        |
| MCM/MP/0532 | Nyirenda, Thomas E.      |
| MCM/MP/1050 | Onah, Okey V.            |
| MCM/MP/0327 | Pandya, Dinnesh          |
| MCM/MP/0693 | Phiri, Ndiyudi A.        |
| MCM/MP/0761 | Plowe, Christopher V.    |



|             |                       |
|-------------|-----------------------|
| MCM/MP/1243 | Prosper, Lutala M.    |
| MCM/MP/0953 | Ras, Debby M.S.       |
| MCM/MP/1036 | Samuel, Adanesh       |
| MCM/MP/0672 | Sherry, Azeez         |
| MCM/MP/1037 | Sirali, Paul O.       |
| MCM/MP/0939 | Spini, Carlo          |
| MCM/MP/1039 | Sseguya, Paul         |
| MCM/MP/1075 | Sukhani, Rosario C.   |
| MCM/MP/1233 | Suleman, Ibrahim T.   |
| MCM/MP/1071 | Tan, Elaine J.H.      |
| MCM/MP/0050 | Tayub, Abdul M.A      |
| MCM/MP/1245 | Teffer, Tewodros B.   |
| MCM/MP/0052 | Thejopal, Sureshpal   |
| MCM/MP/0937 | Van De Ven. Roland A. |
| MCM/MP/1229 | Van Nuenen Johanna    |
| MCM/MP/1240 | Van Os. Andrina F.M.  |
| MCM/MP/0886 | Varela, Carlos G.     |
| MCM/MP/0990 | Vergara, Andrew M.M.D |
| MCM/MP/1249 | Wona                  |
| MCM/MP/0892 | Yeganeh-Arani, Efran  |
|             |                       |

#### LIST OF MEDICAL PRACTITIONERS – TEMPORARY

|              |                            |
|--------------|----------------------------|
| MCM/MP/1268  | Fox, Peter N               |
| MCM/MP/1058  | Carroll, Ryan W.           |
| MCM/DEN/0051 | Agra Jesse F.              |
| MCM/DEN/0077 | Chatto Jemima              |
| MCM/DEN/0001 | Girach Bilkis A.           |
| MCM/DEN/0012 | Hakimi Minoo F.            |
| MCM/DEN/0049 | Kidega W.F.V.O.            |
| MCM/DEN/0036 | Ligomeka J.F.              |
| MCM/DEN/0004 | Makadia C.K.               |
| MCM/DEN/0021 | Mazloum A.                 |
| MCM/DEN/0062 | Mlotha Jessie M.           |
| MCM/DEN/0006 | Mukiwa Winston B.          |
| MCM/DEN/0064 | Ottobert Charles           |
| MCM/DEN/0063 | Sreeram Ratnam             |
| MCM/DEN/0056 | Vose Frances A.            |
| MCM/SP/0231  | Boissevain, Augustine C.H. |
| MCM/SP/0035  | Borgestein, Annie C.       |
| MCM/SP/0079  | Borgestein, Eric S.        |
| MCM/SP/0069  | Broadhead, Robert L.       |
| MCM/SP/0262  | Bunn, James E.G.           |
| MCM/SP/0015  | Chimimba, Peter C.         |
| MCM/SP/0167  | Chirwa, Patrick W.         |
| MCM/SP/0155  | Dzamalala, Charles P.      |
| MCM/SP/0273  | Fan Simon                  |
| MCM/SP/0058  | Harries David A.           |
| MCM/SP/0175  | Harrison William J.        |
| MCM/SP/0270  | Hogenskurz Eva             |
| MCM/SP/0172  | Hosseinipour Mina          |
| MCM/SP/0274  | Joseph Kwong Leung Yu      |
| MCM/SP/0185  | Kafulafula George E.       |
| MCM/SP/0226  | Kamiza, Steve B.           |

|              |                         |
|--------------|-------------------------|
| MCM/SP/0150  | Kampondeni, Samuel D.   |
| MCM/SP/0208  | Kerac, Marco            |
| MCM/SP/0182  | Khalil, George K.H.     |
| MCM/SP/0279  | Kibiogo, Mwiru          |
| MCM/SP/0133  | Kiromera Athanase       |
| MCM/SP/0151  | Kumwenda Jonny J.R.     |
| MCM/SP/0232  | Madinda Frank G.        |
| MCM/SP/0144  | Makin, Mary Sue         |
| MCM/SP/0014  | Mlenga, Grace J.        |
| MCM/SP/0028  | Mannion, Stephen J.     |
| MCM/SP/0001  | Mbvundula, Micheal W.   |
| MCM/SP/0277  | Mchenga, Maurice        |
| MCM/SP/0156  | Mkandawire Nyengo C.    |
| MCM/SP/0132  | Molyneux, Elizabeth     |
| MCM/SP/0029  | Molyneux, Malcom E.     |
| MCM/SP/0107  | Msamati Bonface         |
| MCM/SP/0152  | Mwansambo, Charles      |
| MCM/SP/0281  | Nijssen-Jordan Cheri L. |
| MCM/SP/0134  | Nkume, Batumba H.       |
| MCM/SP/0013  | Phillips John Andrew    |
| MCM/SP/0271  | Schneider, Eberhard     |
| MCM/SP/0256  | Taulo Frank G.O.        |
| MCM/SP/0140  | Vigna Leonardo J.       |
| MCM/SP/0236  | Vochtchenkov, Ivan      |
| MCM/OPT/0021 | Hartleben, Axel         |
| MCM/OPT/0016 | Opperman, Catrin        |
| MCM/DO/0002  | Bandawe Chiwoza R.      |
| MCM/DOC/0001 | Christink, Blair M.     |
| MCM/PHY/0083 | Nesbit, Kathryn         |

Annex 4: List of health facilities and institutions visited in the census

| District | Name of Facility                  | Level of Care | Owner              | Registered? | T |
|----------|-----------------------------------|---------------|--------------------|-------------|---|
| Balaka   | Comfort Clinic                    | Secondary     | CHAM               | No          |   |
| Balaka   | Kankao HC                         | Secondary     | CHAM               | No          |   |
| Balaka   | Ulongwe Mission                   | Primary       | CHAM               | No          |   |
| Balaka   | Utale 1 HC                        | Primary       | CHAM               | No          |   |
| Balaka   | Utale 2 HC                        | Primary       | CHAM               | No          |   |
| Balaka   | Balaka DHO                        | Secondary     | Government         | Yes         |   |
| Balaka   | Chiendausiku                      | Primary       | Government         | No          |   |
| Balaka   | Kalembo Dispensary                | Primary       | Government         | Yes         |   |
| Balaka   | Kwitanda                          | Primary       | Government         | No          |   |
| Balaka   | Mbera                             | Primary       | Government         | Yes         |   |
| Balaka   | Mwima                             | Primary       | Government         | No          |   |
| Balaka   | Namanolo HC                       | Primary       | Government         | No          |   |
| Balaka   | Phalula HC                        | Primary       | Government         | Yes         |   |
| Balaka   | Phimbi HC                         | Primary       | Government         | Yes         |   |
| Balaka   | Balaka BLM                        | Primary       | NGO                | Yes         |   |
| Balaka   | Sue Ryder Foundation              | Others        | NGO                | Yes         |   |
| Balaka   | Chizeni Clinic                    | Primary       | Private for profit | No          |   |
| Balaka   | Pilirani                          | Primary       | Private for profit | No          |   |
| Blantyre | Chileka SDA                       | Primary       | CHAM               | Yes         |   |
| Blantyre | Lumbira                           | Primary       | CHAM               | No          |   |
| Blantyre | Mlambe                            | Secondary     | CHAM               | No          |   |
| Blantyre | Soche SDA Dispensary              | Primary       | CHAM               | Yes         |   |
| Blantyre | St Vincent HC                     | Primary       | CHAM               | No          |   |
| Blantyre | Carlsberg Clinic                  | Primary       | Company            | Yes         |   |
| Blantyre | Limbe Leaf Clinic                 | Primary       | Company            | Yes         |   |
| Blantyre | PCL Clinic                        | Primary       | Company            | Yes         |   |
| Blantyre | Portland                          | Primary       | Company            | Yes         |   |
| Blantyre | SOBO Clinic                       | Primary       | Company            | Yes         |   |
| Blantyre | Walrkers Ferry                    | Primary       | Company            | No          |   |
| Blantyre | Bangwe                            | Primary       | Government         | No          |   |
| Blantyre | Blantyre DHO                      | Others        | Government         | No          |   |
| Blantyre | BT Civic Centre                   | Primary       | Government         | No          |   |
| Blantyre | Chavala HC                        | Primary       | Government         | Yes         |   |
| Blantyre | Chichiri Prison                   | Primary       | Government         | No          |   |
| Blantyre | Chikowa HC                        | Primary       | Government         | Yes         |   |
| Blantyre | Chileka HC                        | Primary       | Government         | No          |   |
| Blantyre | Chilomoni HC                      | Primary       | Government         | Yes         |   |
| Blantyre | Chimembe HC                       | Primary       | Government         | Yes         |   |
| Blantyre | Dziwe HC                          | Primary       | Government         | Yes         |   |
| Blantyre | Kanjedza Police                   | Primary       | Government         | No          |   |
| Blantyre | Limbe HC                          | Primary       | Government         | Yes         |   |
| Blantyre | Lirangwe                          | Primary       | Government         | No          |   |
| Blantyre | Lundu HC                          | Primary       | Government         | Yes         |   |
| Blantyre | Madziabango HC                    | Primary       | Government         | Yes         |   |
| Blantyre | Makata Dispensary                 | Primary       | Government         | Yes         |   |
| Blantyre | Malawi College of Health Sciences | Others        | Government         | No          |   |
| Blantyre | Mdeka HC                          | Primary       | Government         | Yes         |   |
| Blantyre | Medical Stores                    | Others        | Government         | No          |   |
| Blantyre | Mpemba HC                         | Primary       | Government         | Yes         |   |
| Blantyre | Namikoko Dispensary               | Primary       | Government         | Yes         |   |

|          |                                  |           |                    |     |
|----------|----------------------------------|-----------|--------------------|-----|
| Blantyre | Ndirande HC                      | Primary   | Government         | Yes |
| Blantyre | PVHO                             | Primary   | Government         | No  |
| Blantyre | Queen Elizabeth Central Hospital | Tertiary  | Government         | Yes |
| Blantyre | Soche Maternity/Namame           | Primary   | Government         | No  |
| Blantyre | South Lunzu HC                   | Primary   | Government         | Yes |
| Blantyre | South West Zone                  | Primary   | Government         | No  |
| Blantyre | Zingwangwa HC                    | Primary   | Government         | Yes |
| Blantyre | Banja La Mtsogolo                | Primary   | NGO                | Yes |
| Blantyre | Blantyre Malaria Project         | Others    | NGO                | No  |
| Blantyre | Chilomoni BLM                    | Primary   | NGO                | Yes |
| Blantyre | Cure International               | Primary   | NGO                | Yes |
| Blantyre | Friends of Sick Children         | Others    | NGO                | No  |
| Blantyre | GOAL Malawi                      | Others    | NGO                | No  |
| Blantyre | Limbe Home Based Care Centre     | Others    | NGO                | No  |
| Blantyre | Lunzu BLM                        | Primary   | NGO                | Yes |
| Blantyre | Macro BT Clinic                  | Others    | NGO                | No  |
| Blantyre | Midima BLM                       | Primary   | NGO                | Yes |
| Blantyre | MSF Blantyre                     | Others    | NGO                | No  |
| Blantyre | Zalewa/Lirangwe DAPP             | Others    | NGO                | No  |
| Blantyre | Zingwangwa BLM                   | Primary   | NGO                | Yes |
| Blantyre | Alinafe pvt Clinic               | Primary   | Private for profit | No  |
| Blantyre | Arthur Garden Clinic             | Primary   | Private for profit | No  |
| Blantyre | Ayali pvt Clinic                 | Primary   | Private for profit | No  |
| Blantyre | Banzi pvt                        | Primary   | Private for profit | No  |
| Blantyre | Bernald Kachale Pvt Clinic       | Primary   | Private for profit | No  |
| Blantyre | Blantyre Adventist Hospital      | Secondary | Private for profit | Yes |
| Blantyre | Chilani HC                       | Primary   | Private for profit | No  |
| Blantyre | Chilobwe Pvt Clinic              | Primary   | Private for profit | No  |
| Blantyre | Chitawira                        | Primary   | Private for profit | No  |
| Blantyre | Dalirani Clinic                  | Primary   | Private for profit | No  |
| Blantyre | David Whitehead                  | Primary   | Private for profit | No  |
| Blantyre | Dr Chilemba Surgery              | Primary   | Private for profit | No  |
| Blantyre | Dr Dzinyemba Pvt Clinic          | Primary   | Private for profit | No  |
| Blantyre | Dr kidys                         | Primary   | Private for profit | No  |
| Blantyre | Dr S Kampondeni                  | Primary   | Private for profit | No  |
| Blantyre | Dr Thejopal                      | Primary   | Private for profit | No  |
| Blantyre | Elim pvt Clinic                  | Primary   | Private for profit | Yes |
| Blantyre | Family Health Clinic             | Primary   | Private for profit | No  |
| Blantyre | Hasco Clinic                     | Primary   | Private for profit | No  |
| Blantyre | Kachere Rehabilitation Centre    | Primary   | Private for profit | No  |
| Blantyre | Kanjedza Medical Clinic          | Primary   | Private for profit | No  |
| Blantyre | Limbe Central Clinic             | Primary   | Private for profit | No  |
| Blantyre | Limbe Dignostic Centre           | Primary   | Private for profit | No  |
| Blantyre | Lungu pvt Clinic                 | Primary   | Private for profit | No  |
| Blantyre | Makwasa                          | Primary   | Private for profit | Yes |
| Blantyre | Malamulo Day Clinic              | Primary   | Private for profit | Yes |
| Blantyre | MASM Medical Clinic              | Primary   | Private for profit | No  |
| Blantyre | Michiru pvt Clinic               | Primary   | Private for profit | No  |
| Blantyre | Mombo                            | Primary   | Private for profit | No  |
| Blantyre | Monekela pvt Clinic              | Primary   | Private for profit | No  |
| Blantyre | Mtengoumodzi pvt                 | Primary   | Private for profit | Yes |
| Blantyre | Mwai pvt Clinic                  | Primary   | Private for profit | No  |
| Blantyre | Mwai Wathu Private               | Secondary | Private for profit | Yes |
| Blantyre | Nancholi                         | Primary   | Private for profit | No  |

|          |                                      |           |                        |     |
|----------|--------------------------------------|-----------|------------------------|-----|
| Blantyre | Naperi Clinic                        | Primary   | Private for profit     | No  |
| Blantyre | Nyambadwe pvt Clinic                 | Primary   | Private for profit     | No  |
| Blantyre | Pew Clinic                           | Primary   | Private for profit     | No  |
| Blantyre | Praise Pvt Clinic                    | Primary   | Private for profit     | No  |
| Blantyre | Semema Clinic                        | Primary   | Private for profit     | No  |
| Blantyre | Soche Pvt Clinic                     | Primary   | Private for profit     | No  |
| Blantyre | Sunny Side B                         | Primary   | Private for profit     | No  |
| Blantyre | Tadala Pvt Clinic                    | Primary   | Private for profit     | No  |
| Blantyre | Thekerani                            | Primary   | Private for profit     | No  |
| Blantyre | Thoho Pvt Clinic                     | Primary   | Private for profit     | No  |
| Blantyre | Thumbwe Pvt Clinic                   | Primary   | Private for profit     | No  |
| Blantyre | Truzag                               | Primary   | Private for profit     | No  |
| Blantyre | Ulemu Pvt Clinic                     | Primary   | Private for profit     | No  |
| Blantyre | Uwigo Clinic                         | Primary   | Private for profit     | No  |
| Blantyre | Wehmatt Pvt Clinic                   | Primary   | Private for profit     | Yes |
| Blantyre | Yankho Pvt Clinic                    | Primary   | Private for profit     | No  |
| Blantyre | BLANTYRE WATER BOARD                 | Primary   | Statutory Organisation | No  |
| Blantyre | Central East African Railways Clinic | Primary   | Statutory Organisation | Yes |
| Blantyre | Chichiri ESCOM Clinic                | Primary   | Statutory Organisation | Yes |
| Blantyre | College of Medicine                  | Others    | Statutory Organisation | Yes |
| Blantyre | ESCOM                                | Primary   | Statutory Organisation | Yes |
| Blantyre | John Hopkins Project                 | Others    | Statutory Organisation | No  |
| Blantyre | Malaria Alert Centre                 | Others    | Statutory Organisation | No  |
| Blantyre | Polytechnic                          | Primary   | Statutory Organisation | No  |
| Blantyre | Rota Vaccine Study                   | Others    | Statutory Organisation | No  |
| Blantyre | Tedzani Escom Clinic                 | Primary   | Statutory Organisation | Yes |
| Blantyre | Welcome Trust                        | Others    | Statutory Organisation | No  |
| Chikwawa | Misomali HC                          | Primary   | CHAM                   | No  |
| Chikwawa | Ngabu SDA HC                         | Primary   | CHAM                   | Yes |
| Chikwawa | St Montfort Hospital                 | Secondary | CHAM                   | No  |
| Chikwawa | Arumenda U5                          | Primary   | Company                | No  |
| Chikwawa | Sucoma Illovo Clinic                 | Primary   | Company                | No  |
| Chikwawa | SUCOMA Kalulu Clinic                 | Primary   | Company                | No  |
| Chikwawa | SUCOMA Mangulenje Clinic             | Primary   | Company                | No  |
| Chikwawa | Sucoma/Mwanza/Illovo Clinic          | Primary   | Company                | No  |
| Chikwawa | Beleu                                | Primary   | Government             | No  |
| Chikwawa | Chang'ambika HC                      | Primary   | Government             | Yes |
| Chikwawa | Chapananga HC                        | Primary   | Government             | Yes |
| Chikwawa | Chikwawa                             | Secondary | Government             | Yes |
| Chikwawa | Chipwaila HC                         | Primary   | Government             | Yes |
| Chikwawa | Chithumba                            | Primary   | Government             | No  |
| Chikwawa | Dolo HC                              | Primary   | Government             | Yes |
| Chikwawa | Gaga HC                              | Primary   | Government             | Yes |
| Chikwawa | Gola                                 | Primary   | Government             | No  |
| Chikwawa | Kakoma HC                            | Primary   | Government             | Yes |
| Chikwawa | Kasinthula Dispensary                | Primary   | Government             | Yes |
| Chikwawa | Kubalalika II                        | Primary   | Government             | No  |
| Chikwawa | Lengwe Dispensary                    | Primary   | Government             | Yes |
| Chikwawa | Makhwira                             | Primary   | Government             | Yes |
| Chikwawa | Maperera HC                          | Primary   | Government             | Yes |
| Chikwawa | Mfela HC                             | Primary   | Government             | No  |
| Chikwawa | Mitondo HC                           | Primary   | Government             | No  |
| Chikwawa | Nchalo                               | Primary   | Government             | No  |
| Chikwawa | Ndakwera HC                          | Primary   | Government             | Yes |

|            |                               |           |                        |     |
|------------|-------------------------------|-----------|------------------------|-----|
| Chikwawa   | Ngabu Rural Hospital          | Secondary | Government             | Yes |
| Chikwawa   | Nkhate                        | Primary   | Government             | No  |
| Chikwawa   | Nkumaniza                     | Primary   | Government             | Yes |
| Chikwawa   | Ngabu BLM                     | Primary   | NGO                    | Yes |
| Chikwawa   | Fema Pvt Clinic               | Primary   | Private for profit     | No  |
| Chikwawa   | Masache Pvt Clinic            | Primary   | Private for profit     | No  |
| Chikwawa   | Kapichira Clinic              | Primary   | Statutory Organisation | No  |
| Chiradzulu | PIM HC                        | Primary   | CHAM                   | No  |
| Chiradzulu | St Joseph Hospital            | Secondary | CHAM                   | No  |
| Chiradzulu | St Josephy College of Nursing | Others    | CHAM                   | No  |
| Chiradzulu | Chiradzulu DHO                | Secondary | Government             | Yes |
| Chiradzulu | Chitera                       | Primary   | Government             | Yes |
| Chiradzulu | Likoswe                       | Primary   | Government             | No  |
| Chiradzulu | Mauwa HC                      | Primary   | Government             | Yes |
| Chiradzulu | Mbulumbuzi HC                 | Primary   | Government             | No  |
| Chiradzulu | Milepa HC                     | Primary   | Government             | Yes |
| Chiradzulu | Mwanje                        | Primary   | Government             | No  |
| Chiradzulu | Namadzi HC                    | Primary   | Government             | Yes |
| Chiradzulu | Namitambo HC                  | Primary   | Government             | Yes |
| Chiradzulu | Ndunde HC                     | Primary   | Government             | Yes |
| Chiradzulu | Njuli                         | Primary   | Government             | No  |
| Chiradzulu | Nkalo HC                      | Secondary | Government             | No  |
| Chiradzulu | Thumbwe                       | Primary   | Government             | No  |
| Chiradzulu | Medicines San Frontiers       | Others    | NGO                    | No  |
| Chiradzulu | Mikolongwe DAPP Hope Station  | Others    | NGO                    | No  |
| Chiradzulu | Akasale Pvt Clinic            | Primary   | Private for profit     | No  |
| Chiradzulu | Bilal Islamic Clinic          | Primary   | Private for profit     | Yes |
| Chiradzulu | Namadzi Pvt Clinic            | Primary   | Private for profit     | No  |
| Chitipa    | Chambo HC                     | Primary   | CHAM                   | No  |
| Chitipa    | Kaseye Rural Hospital         | Secondary | CHAM                   | No  |
| Chitipa    | Chitipa DHO                   | Secondary | Government             | Yes |
| Chitipa    | Ifumbo HC                     | Primary   | Government             | No  |
| Chitipa    | Kameme HC                     | Primary   | Government             | Yes |
| Chitipa    | Kapenda                       | Primary   | Government             | Yes |
| Chitipa    | Misuku HC                     | Primary   | Government             | Yes |
| Chitipa    | Nthalire HC                   | Primary   | Government             | No  |
| Chitipa    | Wenya HC                      | Primary   | Government             | Yes |
| Chitipa    | Fwasani pvt Clinic            | Primary   | Private for profit     | No  |
| Dedza      | Bembeke Health Centre         | Primary   | CHAM                   | No  |
| Dedza      | Chiphwanya St Josephs         | Primary   | CHAM                   | No  |
| Dedza      | Kanyama Health Centre         | Primary   | CHAM                   | No  |
| Dedza      | Kasina Rural Hospital         | Secondary | CHAM                   | No  |
| Dedza      | Kaundu Health Centre          | Primary   | CHAM                   | No  |
| Dedza      | Matumba                       | Primary   | CHAM                   | No  |
| Dedza      | Mikondo Health Centre         | Primary   | CHAM                   | No  |
| Dedza      | Mphunzi Health Centre         | Primary   | CHAM                   | No  |
| Dedza      | Mtendere Health Centre        | Primary   | CHAM                   | No  |
| Dedza      | Mua Rural Hospital            | Secondary | CHAM                   | No  |
| Dedza      | Nakalanzi Health Centre       | Primary   | CHAM                   | Yes |
| Dedza      | Chikuse                       | Primary   | Government             | Yes |
| Dedza      | Chimoto                       | Primary   | Government             | Yes |
| Dedza      | Chitowo                       | Primary   | Government             | Yes |
| Dedza      | Chongoni College of For       | Primary   | Government             | No  |
| Dedza      | Dedza District Hospital       | Secondary | Government             | Yes |

|         |                                       |           |                    |     |
|---------|---------------------------------------|-----------|--------------------|-----|
| Dedza   | Dzindevu                              | Primary   | Government         | No  |
| Dedza   | Golomoti                              | Primary   | Government         | Yes |
| Dedza   | Kafere                                | Primary   | Government         | Yes |
| Dedza   | Kalulu Health Centre                  | Primary   | Government         | Yes |
| Dedza   | Kaname/Mdeza Dispensary               | Primary   | Government         | No  |
| Dedza   | Kanyezi Health Centre                 | Primary   | Government         | No  |
| Dedza   | Kaphuka Rural Hospital                | Secondary | Government         | Yes |
| Dedza   | Lobi Health Centre                    | Primary   | Government         | Yes |
| Dedza   | Maonde Health Centre                  | Primary   | Government         | No  |
| Dedza   | Mayani Health Centre                  | Primary   | Government         | No  |
| Dedza   | Mjini Dispensary                      | Primary   | Government         | No  |
| Dedza   | Mlangali                              | Primary   | Government         | Yes |
| Dedza   | Mphathi                               | Primary   | Government         | Yes |
| Dedza   | Mtakataka/Police College HC           | Primary   | Government         | Yes |
| Dedza   | Ntakataka Police Dispensary           | Primary   | Government         | Yes |
| Dedza   | Tsoyo                                 | Primary   | Government         | No  |
| Dedza   | Dedza BLM                             | Primary   | NGO                | Yes |
| Dedza   | Mganja Maternity Clinic               | Primary   | Private for profit | No  |
| Dedza   | Tanyaza Clinic                        | Primary   | Private for profit | No  |
| Dedza   | Tiyese Maternity Clinic               | Primary   | Private for profit | No  |
| Dowa    | Madisi                                | Secondary | CHAM               | Yes |
| Dowa    | Mtengowanthena Hospital               | Secondary | CHAM               | Yes |
| Dowa    | Mvera Mission                         | Secondary | CHAM               | No  |
| Dowa    | St Fransisco Palau Hospital           | Secondary | CHAM               | Yes |
| Dowa    | St Mary's                             | Primary   | CHAM               | Yes |
| Dowa    | Bowe Health Centre                    | Primary   | Government         | Yes |
| Dowa    | Chakhaza Health Centre                | Primary   | Government         | Yes |
| Dowa    | Chankhungu                            | Primary   | Government         | Yes |
| Dowa    | Chinkhwiri                            | Primary   | Government         | Yes |
| Dowa    | Chisepo                               | Primary   | Government         | No  |
| Dowa    | Chizoloondo                           | Primary   | Government         | No  |
| Dowa    | Dowa District Hospital                | Secondary | Government         | Yes |
| Dowa    | Dzeleka Refugee Camp Clinic           | Primary   | Government         | Yes |
| Dowa    | Dzoole Health Centre                  | Primary   | Government         | Yes |
| Dowa    | Kayembe Health Centre                 | Primary   | Government         | Yes |
| Dowa    | Mbingwa Health Centre                 | Primary   | Government         | Yes |
| Dowa    | Mponela Rural Hospital                | Secondary | Government         | Yes |
| Dowa    | Msakambewa Health Centre              | Primary   | Government         | Yes |
| Dowa    | Mvera Army Clinic                     | Primary   | Government         | No  |
| Dowa    | Mwangala                              | Primary   | Government         | No  |
| Dowa    | Nalunga                               | Primary   | Government         | No  |
| Dowa    | Thonje Health Centre                  | Primary   | Government         | Yes |
| Dowa    | Dowa BLM                              | Primary   | NGO                | No  |
| Dowa    | Family Planning Association of Malawi | Others    | NGO                | Yes |
| Dowa    | Kasese Lifeline Clinic                | Primary   | NGO                | No  |
| Dowa    | Mtengo Dream                          | Primary   | NGO                | No  |
| Dowa    | Alinafe Pvt Clinic                    | Primary   | Private for profit | No  |
| Dowa    | Chifundo Pvt Clinic                   | Primary   | Private for profit | No  |
| Dowa    | Dalitso Pvt Clinic                    | Primary   | Private for profit | No  |
| Dowa    | Evangelical Lutheran Clinic           | Primary   | Private for profit | Yes |
| Dowa    | Mamoyo Pvt Clinic                     | Primary   | Private for profit | No  |
| Dowa    | MBA-Esita Pvt Clinic                  | Primary   | Private for profit | No  |
| Dowa    | Towoo's Pvt Clinic                    | Primary   | Private for profit | No  |
| Karonga | Atupele/Kasantha                      | Secondary | CHAM               | No  |

|         |                          |           |                        |     |
|---------|--------------------------|-----------|------------------------|-----|
| Karonga | Sangilo HC               | Primary   | CHAM                   | No  |
| Karonga | St Annes HC              | Secondary | CHAM                   | No  |
| Karonga | Chilumba                 | Secondary | Government             | Yes |
| Karonga | Chilumba Garrison HC     | Primary   | Government             | No  |
| Karonga | Fulirwa                  | Primary   | Government             | Yes |
| Karonga | Hara Dispensary          | Primary   | Government             | Yes |
| Karonga | Iponga HC                | Primary   | Government             | Yes |
| Karonga | Kaporo                   | Secondary | Government             | Yes |
| Karonga | Karonga DHO              | Secondary | Government             | Yes |
| Karonga | Kasoba                   | Primary   | Government             | No  |
| Karonga | Lupembe                  | Primary   | Government             | No  |
| Karonga | Luwezga HC               | Primary   | Government             | No  |
| Karonga | Mpata HC                 | Primary   | Government             | Yes |
| Karonga | Ngana                    | Primary   | Government             | Yes |
| Karonga | Nyungwe                  | Primary   | Government             | Yes |
| Karonga | Wililo                   | Primary   | Government             | Yes |
| Karonga | Karonga BLM              | Primary   | NGO                    | Yes |
| Karonga | Karonga Prevention Study | Others    | NGO                    | No  |
| Karonga | Lusakoliniti pvt clinic  | Primary   | Private for profit     | No  |
| Karonga | Maneno pvt clinic        | Primary   | Private for profit     | No  |
| Karonga | Mbukwa Private           | Primary   | Private for profit     | No  |
| Karonga | Wovwe Escom Clinic       | Primary   | Statutory Organisation | Yes |
| Kasungu | Newo                     | Primary   | CHAM                   | No  |
| Kasungu | Nkhamenya Hospital       | Secondary | CHAM                   | No  |
| Kasungu | St Andrews Health Centre | Secondary | CHAM                   | No  |
| Kasungu | 80 Block Clinic          | Primary   | Company                | No  |
| Kasungu | Kamuzu Academy Clinic    | Primary   | Company                | Yes |
| Kasungu | Bua Dispensary           | Primary   | Government             | Yes |
| Kasungu | Chamama Health Centre    | Primary   | Government             | No  |
| Kasungu | Chamwabvi                | Primary   | Government             | Yes |
| Kasungu | Chulu                    | Primary   | Government             | Yes |
| Kasungu | Dwangwa Dispensary       | Primary   | Government             | Yes |
| Kasungu | Gogode Dispensary        | Primary   | Government             | No  |
| Kasungu | Kaluluma Rural Hospital  | Secondary | Government             | Yes |
| Kasungu | Kamboni Health Centre    | Primary   | Government             | Yes |
| Kasungu | Kapelula Health Centre   | Primary   | Government             | Yes |
| Kasungu | Kapyanga                 | Primary   | Government             | No  |
| Kasungu | Kasungu DH               | Secondary | Government             | Yes |
| Kasungu | kawamba Health Centre    | Primary   | Government             | No  |
| Kasungu | Khola                    | Primary   | Government             | No  |
| Kasungu | KTFT/Mziza Health Centre | Primary   | Government             | No  |
| Kasungu | Linyangwa Health Centre  | Primary   | Government             | No  |
| Kasungu | Lojwa Dispensary         | Primary   | Government             | No  |
| Kasungu | Mkhota Health Centre     | Primary   | Government             | Yes |
| Kasungu | Mpepa                    | Primary   | Government             | No  |
| Kasungu | Mtunthama Health Centre  | Primary   | Government             | Yes |
| Kasungu | Ofesi H.C                | Primary   | Government             | No  |
| Kasungu | Santhe Health Centre     | Primary   | Government             | Yes |
| Kasungu | Simulemba Health Centre  | Secondary | Government             | Yes |
| Kasungu | Wimbe Health Centre      | Primary   | Government             | No  |
| Kasungu | Kasungu BLM              | Primary   | NGO                    | Yes |
| Kasungu | Gogo Leya Pvt Clinic     | Primary   | Private for profit     | No  |
| Kasungu | Kalikene Pvt Clinic      | Primary   | Private for profit     | No  |
| Kasungu | Yankho Pvt               | Primary   | Private for profit     | No  |



|          |                                   |           |            |     |
|----------|-----------------------------------|-----------|------------|-----|
| Likoma   | Likoma HC                         | Primary   | CHAM       | No  |
| Likoma   | St Marys HC                       | Primary   | CHAM       | No  |
| Likoma   | St Peters Hospital                | Secondary | CHAM       | No  |
| Likoma   | Chizumulo                         | Primary   | Government | No  |
| Lilongwe | Adventist Health Centre Clinic    | Primary   | CHAM       | No  |
| Lilongwe | Bwatalika Health Centre           | Primary   | CHAM       | Yes |
| Lilongwe | Chadza/Facilities33               | Primary   | CHAM       | No  |
| Lilongwe | CHAM Secretariat                  | Others    | CHAM       | No  |
| Lilongwe | Chiwe HC                          | Primary   | CHAM       | No  |
| Lilongwe | Dzenza HC                         | Primary   | CHAM       | No  |
| Lilongwe | Likuni Hospital                   | Secondary | CHAM       | No  |
| Lilongwe | Mbwatalika HC                     | Primary   | CHAM       | No  |
| Lilongwe | Mlale Rural Hospital              | Secondary | CHAM       | Yes |
| Lilongwe | Mlodza/Seventh Day                | Primary   | CHAM       | Yes |
| Lilongwe | Nambuma HC                        | Secondary | CHAM       | No  |
| Lilongwe | Nkhoma College of Nursing         | Others    | CHAM       | No  |
| Lilongwe | Nkhoma Mission Hospital           | Secondary | CHAM       | Yes |
| Lilongwe | St Gabriel                        | Secondary | CHAM       | No  |
| Lilongwe | Dimon(Malawi)Clinic               | Primary   | Company    | Yes |
| Lilongwe | Limbe Leaf Clinic                 | Primary   | Company    | Yes |
| Lilongwe | Sobo Clin                         | Primary   | Company    | Yes |
| Lilongwe | Airport HC                        | Primary   | Government | No  |
| Lilongwe | Area 18                           | Primary   | Government | Yes |
| Lilongwe | Area 25 Health Centre             | Primary   | Government | Yes |
| Lilongwe | Bwaila Hospital                   | Secondary | Government | No  |
| Lilongwe | Central Medical Stores            | Others    | Government | No  |
| Lilongwe | Central West Zone Office          | Others    | Government | No  |
| Lilongwe | Chikowa HC                        | Primary   | Government | Yes |
| Lilongwe | Chileka HC                        | Primary   | Government | Yes |
| Lilongwe | Chilobwe/Majiga                   | Primary   | Government | No  |
| Lilongwe | Chimbalanga HC                    | Primary   | Government | Yes |
| Lilongwe | Chimwala HC                       | Primary   | Government | No  |
| Lilongwe | Chitedze                          | Primary   | Government | Yes |
| Lilongwe | Chiunjiza                         | Primary   | Government | Yes |
| Lilongwe | Chiwamba HC                       | Primary   | Government | No  |
| Lilongwe | CHSU                              | Others    | Government | No  |
| Lilongwe | City Assembly Health              | Primary   | Government | No  |
| Lilongwe | Diampwe HC                        | Primary   | Government | Yes |
| Lilongwe | Dickson HC                        | Primary   | Government | No  |
| Lilongwe | EPI                               | Others    | Government | No  |
| Lilongwe | Health Education Unit             | Others    | Government | No  |
| Lilongwe | Health Services Commission        | Others    | Government | No  |
| Lilongwe | Infrastrure Development Unit      | Others    | Government | No  |
| Lilongwe | Kabudula                          | Secondary | Government | Yes |
| Lilongwe | Kamuzu Barr Hospital              | Primary   | Government | No  |
| Lilongwe | Kamuzu Central                    | Tertiary  | Government | No  |
| Lilongwe | Kang'oma                          | Primary   | Government | Yes |
| Lilongwe | Katchale                          | Primary   | Government | Yes |
| Lilongwe | Kawale HC                         | Primary   | Government | Yes |
| Lilongwe | Khongoni                          | Primary   | Government | No  |
| Lilongwe | Lemwe                             | Primary   | Government | No  |
| Lilongwe | Lumbadzi Dispensary               | Primary   | Government | Yes |
| Lilongwe | Malawi Army Air Wing Clinic       | Primary   | Government | No  |
| Lilongwe | Malawi College of Health Sciences | Others    | Government | No  |

|          |                                   |           |                    |     |
|----------|-----------------------------------|-----------|--------------------|-----|
| Lilongwe | Malawi College of Health Sciences | Others    | Government         | No  |
| Lilongwe | Malembo                           | Primary   | Government         | No  |
| Lilongwe | Malingunde HC                     | Primary   | Government         | No  |
| Lilongwe | Maluwa HC                         | Primary   | Government         | No  |
| Lilongwe | MAP                               | Others    | Government         | No  |
| Lilongwe | Matapila HC                       | Primary   | Government         | No  |
| Lilongwe | Mbabzi                            | Primary   | Government         | No  |
| Lilongwe | Mbang'ombe 11 HC                  | Primary   | Government         | Yes |
| Lilongwe | Mbang'ombe HC                     | Primary   | Government         | Yes |
| Lilongwe | Medical Council of Malawi         | Others    | Government         | No  |
| Lilongwe | Ming'ongo                         | Primary   | Government         | Yes |
| Lilongwe | Mitundu                           | Secondary | Government         | Yes |
| Lilongwe | MoH Hq                            | Others    | Government         | No  |
| Lilongwe | Mtentera                          | Primary   | Government         | Yes |
| Lilongwe | Mtsiliza                          | Primary   | Government         | No  |
| Lilongwe | NAC                               | Others    | Government         | No  |
| Lilongwe | Nathenje                          | Primary   | Government         | Yes |
| Lilongwe | Natural Resources College         | Primary   | Government         | No  |
| Lilongwe | Ndaula                            | Primary   | Government         | Yes |
| Lilongwe | New State House                   | Primary   | Government         | Yes |
| Lilongwe | Ngoni HC                          | Primary   | Government         | No  |
| Lilongwe | Nsaru                             | Primary   | Government         | Yes |
| Lilongwe | Nthondo                           | Primary   | Government         | Yes |
| Lilongwe | Police {Area 30}                  | Primary   | Government         | No  |
| Lilongwe | Ukwe                              | Primary   | Government         | No  |
| Lilongwe | Area 24 BLM                       | Primary   | NGO                | No  |
| Lilongwe | Area 25 BLM                       | Primary   | NGO                | Yes |
| Lilongwe | Falls BLM                         | Primary   | NGO                | Yes |
| Lilongwe | Family Planning Association       | Others    | NGO                | Yes |
| Lilongwe | Kawale BLM                        | Primary   | NGO                | Yes |
| Lilongwe | Lighthouse                        | Primary   | NGO                | No  |
| Lilongwe | Lilongwe I BLM                    | Primary   | NGO                | No  |
| Lilongwe | Macro Lilongwe                    | Others    | NGO                | No  |
| Lilongwe | Management Science for Health     | Others    | NGO                | No  |
| Lilongwe | MAP - Lilongwe                    | Others    | NGO                | No  |
| Lilongwe | Napham                            | Others    | NGO                | No  |
| Lilongwe | NAPHAM Kawale                     | Others    | NGO                | No  |
| Lilongwe | Reach Trust                       | Others    | NGO                | No  |
| Lilongwe | Red Cross                         | Others    | NGO                | No  |
| Lilongwe | SOS Medical Centre                | Primary   | NGO                | Yes |
| Lilongwe | ABC Comm. Hospital                | Primary   | Private for profit | Yes |
| Lilongwe | Anniversary Dental Clinic         | Primary   | Private for profit | No  |
| Lilongwe | Area 24 Pvt Clinic                | Primary   | Private for profit | No  |
| Lilongwe | Blessings Hospital                | Secondary | Private for profit | Yes |
| Lilongwe | Broadway Health Care              | Primary   | Private for profit | No  |
| Lilongwe | Bwaila Pharmacy                   | Others    | Private for profit | No  |
| Lilongwe | Capital Pharmacy                  | Others    | Private for profit | No  |
| Lilongwe | CCK Health Clinic                 | Primary   | Private for profit | No  |
| Lilongwe | Chidzu                            | Primary   | Private for profit | No  |
| Lilongwe | Chilinde H Services               | Primary   | Private for profit | No  |
| Lilongwe | Chinese Clinic                    | Primary   | Private for profit | No  |
| Lilongwe | Chirani - Lilongwe                | Others    | Private for profit | No  |
| Lilongwe | City Centre Clinic                | Primary   | Private for profit | Yes |
| Lilongwe | David Livingstone Clinic          | Primary   | Private for profit | No  |

|          |                                      |           |                        |     |
|----------|--------------------------------------|-----------|------------------------|-----|
| Lilongwe | Dental Clinic                        | Primary   | Private for profit     | No  |
| Lilongwe | Dopa PVT Clinic                      | Primary   | Private for profit     | No  |
| Lilongwe | Dr AQA Ghumra                        | Primary   | Private for profit     | No  |
| Lilongwe | Dr G M Lorgat                        | Primary   | Private for profit     | No  |
| Lilongwe | Dr George Khalil                     | Primary   | Private for profit     | No  |
| Lilongwe | Dr Lorgat                            | Primary   | Private for profit     | No  |
| Lilongwe | Emmanuel Pvt Clinic                  | Primary   | Private for profit     | No  |
| Lilongwe | Family Dental Clinic                 | Primary   | Private for profit     | No  |
| Lilongwe | Family Health PVT Clinic             | Primary   | Private for profit     | No  |
| Lilongwe | Gika PVT Clinic                      | Primary   | Private for profit     | No  |
| Lilongwe | Grahev Pvt Clinic                    | Primary   | Private for profit     | No  |
| Lilongwe | kaliya                               | Primary   | Private for profit     | No  |
| Lilongwe | KAMA Drug Store                      | Others    | Private for profit     | No  |
| Lilongwe | Kamatenda PVT Clinic                 | Primary   | Private for profit     | No  |
| Lilongwe | Khama PVT Clinic                     | Primary   | Private for profit     | No  |
| Lilongwe | Kims Medical Clinical                | Primary   | Private for profit     | Yes |
| Lilongwe | Lilongwe HC                          | Primary   | Private for profit     | No  |
| Lilongwe | Lilongwe PVT Clinic                  | Primary   | Private for profit     | Yes |
| Lilongwe | Mai Aisha                            | Primary   | Private for profit     | Yes |
| Lilongwe | Malakia Pvt Clinic                   | Primary   | Private for profit     | No  |
| Lilongwe | Malangalanga MASM                    | Others    | Private for profit     | No  |
| Lilongwe | Mars Medical Centre                  | Primary   | Private for profit     | No  |
| Lilongwe | Masida Pvt                           | Primary   | Private for profit     | No  |
| Lilongwe | Matandani Clinic                     | Primary   | Private for profit     | No  |
| Lilongwe | Maula Clinic                         | Primary   | Private for profit     | No  |
| Lilongwe | Maula Pharmacy                       | Secondary | Private for profit     | No  |
| Lilongwe | Moyo Wanga Clinic                    | Primary   | Private for profit     | No  |
| Lilongwe | Mphatso                              | Primary   | Private for profit     | No  |
| Lilongwe | Mpumulo Pvt Clinic                   | Primary   | Private for profit     | No  |
| Lilongwe | Mulowela Women Clinic                | Primary   | Private for profit     | No  |
| Lilongwe | Nyangu Clinic                        | Primary   | Private for profit     | No  |
| Lilongwe | One Stop Community Pharmacy          | Others    | Private for profit     | No  |
| Lilongwe | Partners in Hope                     | Primary   | Private for profit     | No  |
| Lilongwe | Pharmacar                            | Others    | Private for profit     | No  |
| Lilongwe | Prne Pvt Clinic                      | Primary   | Private for profit     | No  |
| Lilongwe | Seventh Centre Pvt Clinic            | Primary   | Private for profit     | No  |
| Lilongwe | SSH                                  | Primary   | Private for profit     | No  |
| Lilongwe | SVK Physiotherapy                    | Primary   | Private for profit     | No  |
| Lilongwe | Tachila Pvt Clinic                   | Primary   | Private for profit     | No  |
| Lilongwe | Tendai Pvt Clinic                    | Primary   | Private for profit     | No  |
| Lilongwe | The Clinic                           | Primary   | Private for profit     | No  |
| Lilongwe | Tovic Pvt Clinic                     | Primary   | Private for profit     | No  |
| Lilongwe | Umoyo Pvt Clinic                     | Primary   | Private for profit     | No  |
| Lilongwe | UNC Project                          | Others    | Private for profit     | No  |
| Lilongwe | Vision Pvt                           | Primary   | Private for profit     | No  |
| Lilongwe | Bunda College Clinic                 | Primary   | Statutory Organisation | Yes |
| Lilongwe | KCN                                  | Others    | Statutory Organisation | Yes |
| Lilongwe | Lilongwe ESCOM Clinic                | Primary   | Statutory Organisation | Yes |
| Lilongwe | MIM Clinic                           | Primary   | Statutory Organisation | No  |
| Lilongwe | Nurses and Midwife Council of Malawi | Others    | Statutory Organisation | No  |
| Machinga | Gawanani HC                          | Primary   | CHAM                   | Yes |
| Machinga | Mpiri HC                             | Primary   | CHAM                   | No  |
| Machinga | Mposa HC                             | Primary   | CHAM                   | No  |
| Machinga | namandanje HC                        | Primary   | CHAM                   | Yes |

|          |                               |           |                    |     |
|----------|-------------------------------|-----------|--------------------|-----|
| Machinga | Nsanama HC                    | Primary   | CHAM               | No  |
| Machinga | St Moreen Marry               | Primary   | CHAM               | No  |
| Machinga | Chamba                        | Primary   | Government         | Yes |
| Machinga | Chikweo HC                    | Primary   | Government         | Yes |
| Machinga | Katema HC                     | Primary   | Government         | No  |
| Machinga | Kawinga HC                    | Primary   | Government         | No  |
| Machinga | Machinga DHO                  | Secondary | Government         | No  |
| Machinga | Machinga HC                   | Primary   | Government         | Yes |
| Machinga | Mang'amba HC                  | Primary   | Government         | No  |
| Machinga | Mbonechela                    | Primary   | Government         | Yes |
| Machinga | Mkwepere                      | Primary   | Government         | No  |
| Machinga | Mlomba                        | Primary   | Government         | No  |
| Machinga | Namanja HC                    | Primary   | Government         | No  |
| Machinga | Nayinunje HC                  | Primary   | Government         | No  |
| Machinga | Nayuchi HC                    | Primary   | Government         | Yes |
| Machinga | Ngokwe HC                     | Primary   | Government         | Yes |
| Machinga | Ntaja HC                      | Primary   | Government         | Yes |
| Machinga | Ntholowa HC                   | Primary   | Government         | No  |
| Machinga | Nyambi HC                     | Primary   | Government         | Yes |
| Machinga | BLM Liwonde                   | Primary   | NGO                | Yes |
| Machinga | Liwonde SDA HC                | Primary   | Private for profit | No  |
| Machinga | Machinga Pvt Clinic           | Primary   | Private for profit | No  |
| Machinga | Madalitso Pvt Clinic          | Primary   | Private for profit | No  |
| Machinga | Malingamoyo Pvt Clinic        | Primary   | Private for profit | No  |
| Machinga | Umoyo Pvt Clinic              | Primary   | Private for profit | No  |
| Machinga | Zasintha Pvt Clinic           | Primary   | Private for profit | No  |
| Mangochi | Chiwunda                      | Primary   | CHAM               | No  |
| Mangochi | Kapire HC                     | Primary   | CHAM               | No  |
| Mangochi | Koche                         | Primary   | CHAM               | No  |
| Mangochi | Lugola HC                     | Primary   | CHAM               | No  |
| Mangochi | Lulanga HC                    | Primary   | CHAM               | No  |
| Mangochi | Luwalika HC                   | Primary   | CHAM               | No  |
| Mangochi | Mase HC                       | Primary   | CHAM               | No  |
| Mangochi | Mbalama                       | Primary   | CHAM               | No  |
| Mangochi | Mkumba HC                     | Primary   | CHAM               | No  |
| Mangochi | Mpondasi HC                   | Primary   | CHAM               | No  |
| Mangochi | Namakala HC                   | Primary   | CHAM               | No  |
| Mangochi | Nankhwali HC                  | Primary   | CHAM               | No  |
| Mangochi | Nkope HC                      | Primary   | CHAM               | No  |
| Mangochi | Sister Martha HC              | Primary   | CHAM               | No  |
| Mangochi | St Johns Seminary             | Primary   | CHAM               | No  |
| Mangochi | St Martin Hospital            | Secondary | CHAM               | No  |
| Mangochi | San'n'Sand                    | Primary   | Company            | Yes |
| Mangochi | Chikole                       | Primary   | Government         | Yes |
| Mangochi | Chilipa HC                    | Primary   | Government         | Yes |
| Mangochi | Chiponde                      | Primary   | Government         | No  |
| Mangochi | Chiumbangame HC               | Primary   | Government         | Yes |
| Mangochi | Iba                           | Primary   | Government         | No  |
| Mangochi | Jalasi HC                     | Primary   | Government         | Yes |
| Mangochi | Katuli HC                     | Primary   | Government         | Yes |
| Mangochi | Kukalanga Dispensary          | Primary   | Government         | Yes |
| Mangochi | Lungwena HC                   | Primary   | Government         | Yes |
| Mangochi | Makanjira HC                  | Primary   | Government         | Yes |
| Mangochi | Malawi Army Marine Dispensary | Primary   | Government         | No  |

|          |                                    |           |                        |     |
|----------|------------------------------------|-----------|------------------------|-----|
| Mangochi | Malembo HC                         | Secondary | Government             | No  |
| Mangochi | Maleta                             | Primary   | Government             | No  |
| Mangochi | Malombe                            | Primary   | Government             | No  |
| Mangochi | Mangochi District Hospital         | Secondary | Government             | Yes |
| Mangochi | Monkey Bay                         | Secondary | Government             | Yes |
| Mangochi | Mtimabi HC                         | Primary   | Government             | No  |
| Mangochi | Namwera HC                         | Secondary | Government             | Yes |
| Mangochi | Nancholi Dispensary                | Primary   | Government             | Yes |
| Mangochi | Nangelamu HC                       | Primary   | Government             | Yes |
| Mangochi | Nankumba HC                        | Primary   | Government             | Yes |
| Mangochi | Phirilongwe HC                     | Primary   | Government             | Yes |
| Mangochi | Sinyala                            | Primary   | Government             | No  |
| Mangochi | Mangochi BLM                       | Primary   | NGO                    | Yes |
| Mangochi | Mulibwanji Community Hospital      | Secondary | NGO                    | No  |
| Mangochi | Assalam Clinic                     | Primary   | Private for profit     | No  |
| Mangochi | Billy Riordan Memorial Trust       | Secondary | Private for profit     | No  |
| Mangochi | Ngapani Sable Clinic               | Primary   | Private for profit     | No  |
| Mangochi | Stuka Pvt Clinic                   | Primary   | Private for profit     | No  |
| Mangochi | Sukasanje Clinic                   | Primary   | Private for profit     | No  |
| Mangochi | Umodzi Clinic                      | Primary   | Private for profit     | No  |
| Mangochi | Maldeco Dispensary                 | Primary   | Statutory Organisation | No  |
| Mchinji  | Kapiri                             | Secondary | CHAM                   | No  |
| Mchinji  | Ludzi Community Hospital           | Secondary | CHAM                   | Yes |
| Mchinji  | St Michaels Hospital               | Secondary | CHAM                   | Yes |
| Mchinji  | Chipumi                            | Primary   | Government             | Yes |
| Mchinji  | Chiwoshya HC                       | Primary   | Government             | Yes |
| Mchinji  | Gumba Health Post                  | Primary   | Government             | No  |
| Mchinji  | Kaigwazanga HC                     | Primary   | Government             | Yes |
| Mchinji  | Kapanga HC                         | Primary   | Government             | Yes |
| Mchinji  | Kazyozyo/Sakhuta Maternity         | Primary   | Government             | No  |
| Mchinji  | Kochilila                          | Secondary | Government             | Yes |
| Mchinji  | Mchinji District Hospital          | Secondary | Government             | Yes |
| Mchinji  | Mikundi HC                         | Primary   | Government             | Yes |
| Mchinji  | Mkanda HC                          | Primary   | Government             | Yes |
| Mchinji  | Nkhwazi HC                         | Primary   | Government             | Yes |
| Mchinji  | Tembwe Dispensary                  | Primary   | Government             | Yes |
| Mchinji  | Mai Mwana                          | Others    | NGO                    | No  |
| Mchinji  | Mchinji BLM                        | Primary   | NGO                    | Yes |
| Mchinji  | Alinafe Pvt Clinic                 | Primary   | Private for profit     | No  |
| Mchinji  | Bua Medical Centre                 | Primary   | Private for profit     | No  |
| Mchinji  | Chabuka Pvt Clinic                 | Primary   | Private for profit     | No  |
| Mchinji  | Dekhani Pvt Clinic                 | Primary   | Private for profit     | No  |
| Mchinji  | ITES Medical Clinic                | Primary   | Private for profit     | No  |
| Mchinji  | Jumplia Pvt Clinic                 | Primary   | Private for profit     | No  |
| Mchinji  | St Alex Pvt Clinic                 | Primary   | Private for profit     | No  |
| Mulanje  | Mulanje Mission                    | Secondary | CHAM                   | No  |
| Mulanje  | Mulanje Mission College of Nursing | Others    | CHAM                   | No  |
| Mulanje  | Namasalima                         | Primary   | CHAM                   | No  |
| Mulanje  | Namulenga HC                       | Primary   | CHAM                   | Yes |
| Mulanje  | Thembe                             | Primary   | CHAM                   | No  |
| Mulanje  | Eldorado                           | Primary   | Company                | Yes |
| Mulanje  | Esperenza                          | Primary   | Company                | No  |
| Mulanje  | Glenorchy                          | Primary   | Company                | Yes |
| Mulanje  | Lauderdale                         | Primary   | Company                | Yes |

|         |                              |           |                    |     |
|---------|------------------------------|-----------|--------------------|-----|
| Mulanje | Limbuli                      | Primary   | Company            | Yes |
| Mulanje | Lujeri Tea Estate            | Primary   | Company            | No  |
| Mulanje | Mimosa TRF Clinic            | Primary   | Company            | Yes |
| Mulanje | Mini-Mini Tea Estate         | Primary   | Company            | Yes |
| Mulanje | Ruo Estate Clinic            | Primary   | Company            | Yes |
| Mulanje | Sayama Dispensary            | Primary   | Company            | No  |
| Mulanje | Thornwood Clinic             | Primary   | Company            | Yes |
| Mulanje | Bondo HC                     | Primary   | Government         | Yes |
| Mulanje | Chambe                       | Primary   | Government         | No  |
| Mulanje | Chinsambo HC                 | Primary   | Government         | No  |
| Mulanje | Chinyama                     | Primary   | Government         | No  |
| Mulanje | Chisitu HC                   | Primary   | Government         | No  |
| Mulanje | Chonde HC                    | Primary   | Government         | Yes |
| Mulanje | Dzenje HC                    | Primary   | Government         | No  |
| Mulanje | Kambenje HC                  | Primary   | Government         | Yes |
| Mulanje | M'biza                       | Primary   | Government         | No  |
| Mulanje | Milonde                      | Primary   | Government         | No  |
| Mulanje | Mpala HC                     | Primary   | Government         | No  |
| Mulanje | Mulanje District Hospital    | Secondary | Government         | Yes |
| Mulanje | Mulomba HC                   | Primary   | Government         | No  |
| Mulanje | Muloza HC                    | Primary   | Government         | No  |
| Mulanje | Namphungo                    | Primary   | Government         | Yes |
| Mulanje | Naphimba HC                  | Primary   | Government         | No  |
| Mulanje | Thuchila                     | Primary   | Government         | No  |
| Mulanje | Mulanje BLM                  | Primary   | NGO                | Yes |
| Mulanje | Red Cross                    | Others    | NGO                | No  |
| Mulanje | Kabula Pvt Clinic            | Primary   | Private for profit | No  |
| Mulanje | Khamalathu Pvt Clinic        | Primary   | Private for profit | No  |
| Mulanje | Likanga                      | Primary   | Private for profit | No  |
| Mulanje | Machado Pvt Clinic           | Primary   | Private for profit | No  |
| Mulanje | phwazi                       | Primary   | Private for profit | No  |
| Mulanje | Saha Pvt Clinic              | Primary   | Private for profit | No  |
| Mwanza  | Kunenekude HC                | Primary   | Government         | Yes |
| Mwanza  | Mwanza District Hospital     | Secondary | Government         | Yes |
| Mwanza  | Thambani HC                  | Primary   | Government         | Yes |
| Mwanza  | Tulokhondo hc                | Primary   | Government         | Yes |
| Mwanza  | Muyendebwino Wellness Centre | Primary   | NGO                | No  |
| Mwanza  | Mwanza BLM                   | Primary   | NGO                | Yes |
| Mwanza  | Tiyende Ptv Clinic           | Primary   | Private for profit | No  |
| Mzimba  | Dunduzu                      | Primary   | CHAM               | No  |
| Mzimba  | Ekwendeni                    | Secondary | CHAM               | Yes |
| Mzimba  | Ekwendeni Nursing School     | Others    | CHAM               | No  |
| Mzimba  | Embangweni Misson Hospital   | Secondary | CHAM               | No  |
| Mzimba  | Kalikumbi HC                 | Primary   | CHAM               | No  |
| Mzimba  | Katete Rural Hospital        | Secondary | CHAM               | No  |
| Mzimba  | Lunjika HC                   | Primary   | CHAM               | No  |
| Mzimba  | Mary Mount                   | Primary   | CHAM               | No  |
| Mzimba  | Mwabili HC                   | Primary   | CHAM               | No  |
| Mzimba  | Nkhorongo HC                 | Primary   | CHAM               | Yes |
| Mzimba  | St John Of God               | Tertiary  | CHAM               | Yes |
| Mzimba  | St John-Mzuzu                | Others    | CHAM               | No  |
| Mzimba  | St Johns Hospital            | Secondary | CHAM               | No  |
| Mzimba  | Mzuzu Sobo                   | Primary   | Company            | Yes |
| Mzimba  | Raiply Dispensary            | Primary   | Company            | Yes |

|        |                              |           |            |     |
|--------|------------------------------|-----------|------------|-----|
| Mzimba | Bulala HC                    | Primary   | Government | Yes |
| Mzimba | Chikangawa                   | Primary   | Government | No  |
| Mzimba | Choma HC                     | Primary   | Government | Yes |
| Mzimba | Edingeni Rural Hospital      | Secondary | Government | Yes |
| Mzimba | Ehehleni Dispensary          | Primary   | Government | No  |
| Mzimba | Ekwaiweni Dispensary         | Primary   | Government | No  |
| Mzimba | Emfeni HC                    | Primary   | Government | Yes |
| Mzimba | Emsizini HC                  | Primary   | Government | Yes |
| Mzimba | Endindeni HC                 | Primary   | Government | Yes |
| Mzimba | Enukweni HC                  | Primary   | Government | No  |
| Mzimba | Euthini Rural Hospital       | Primary   | Government | Yes |
| Mzimba | Hoho HC                      | Primary   | Government | Yes |
| Mzimba | Jenda HC                     | Primary   | Government | Yes |
| Mzimba | Kabila                       | Primary   | Government | No  |
| Mzimba | Kabuwa HC                    | Primary   | Government | Yes |
| Mzimba | Kabwafu HC                   | Primary   | Government | Yes |
| Mzimba | Kafukule HC                  | Primary   | Government | No  |
| Mzimba | Kamteteka HC                 | Primary   | Government | Yes |
| Mzimba | Kamwe HC                     | Primary   | Government | No  |
| Mzimba | Khosolo                      | Primary   | Government | No  |
| Mzimba | Khoza                        | Primary   | Government | No  |
| Mzimba | Luvwere HC                   | Primary   | Government | No  |
| Mzimba | Luwawa HC                    | Primary   | Government | No  |
| Mzimba | Luwelezi HC                  | Primary   | Government | Yes |
| Mzimba | Madede HC                    | Primary   | Government | Yes |
| Mzimba | Malidade                     | Primary   | Government | Yes |
| Mzimba | Manyamula HC                 | Primary   | Government | Yes |
| Mzimba | Matuli Dispensary            | Primary   | Government | No  |
| Mzimba | Mbalachanda HC               | Primary   | Government | Yes |
| Mzimba | Mharaunda                    | Primary   | Government | No  |
| Mzimba | Mkoma                        | Primary   | Government | No  |
| Mzimba | Moyale Barracks              | Primary   | Government | No  |
| Mzimba | Mpherembe HC                 | Primary   | Government | Yes |
| Mzimba | Msese HC                     | Primary   | Government | Yes |
| Mzimba | Mtende                       | Primary   | Government | Yes |
| Mzimba | Mtwalo                       | Primary   | Government | Yes |
| Mzimba | Mzalangwe HC                 | Primary   | Government | No  |
| Mzimba | Mzambazi Rural Hospital      | Secondary | Government | No  |
| Mzimba | Mzimba DHO                   | Secondary | Government | Yes |
| Mzimba | Mzimba Prison                | Primary   | Government | No  |
| Mzimba | Mzuzu Cental Hospital        | Tertiary  | Government | Yes |
| Mzimba | Mzuzu Central Medical Stores | Others    | Government | No  |
| Mzimba | Mzuzu Police Dispensary      | Primary   | Government | Yes |
| Mzimba | Mzuzu Prison                 | Primary   | Government | No  |
| Mzimba | Mzuzu Urban HC               | Primary   | Government | Yes |
| Mzimba | Njuyu HC                     | Primary   | Government | Yes |
| Mzimba | Nkhuyukuyu HC                | Primary   | Government | No  |
| Mzimba | Vibangalala                  | Primary   | Government | No  |
| Mzimba | Zolozolo                     | Primary   | Government | No  |
| Mzimba | Zonal Office - Mzimba        | Others    | Government | No  |
| Mzimba | Macro Mzuzu                  | Others    | NGO        | No  |
| Mzimba | Mzimba BLM                   | Primary   | NGO        | Yes |
| Mzimba | Mzuzu BLM                    | Primary   | NGO        | Yes |
| Mzimba | SOS pvt Clinic               | Primary   | NGO        | Yes |

|           |                          |           |                        |     |
|-----------|--------------------------|-----------|------------------------|-----|
| Mzimba    | ALFA Dental Surgery      | Primary   | Private for profit     | No  |
| Mzimba    | Chibavi                  | Primary   | Private for profit     | No  |
| Mzimba    | Chigezelo Pvt Clinic     | Primary   | Private for profit     | No  |
| Mzimba    | Dr Musachi's Surgery     | Primary   | Private for profit     | No  |
| Mzimba    | Evergreen/Kandindi       | Primary   | Private for profit     | No  |
| Mzimba    | J & M Pvt Clinic         | Primary   | Private for profit     | No  |
| Mzimba    | Kaswavipindi pvt Clinic  | Primary   | Private for profit     | No  |
| Mzimba    | Khuyu                    | Primary   | Private for profit     | No  |
| Mzimba    | Kings pvt Clinic         | Primary   | Private for profit     | No  |
| Mzimba    | Kochi                    | Primary   | Private for profit     | No  |
| Mzimba    | Mchizga Medical Clinic   | Primary   | Private for profit     | No  |
| Mzimba    | Mkunkhula Pvt Clinic     | Primary   | Private for profit     | No  |
| Mzimba    | Mumbwe Medical Centre    | Primary   | Private for profit     | No  |
| Mzimba    | Temwa Clinic             | Primary   | Private for profit     | No  |
| Mzimba    | Vitumbiko pvt Clinic     | Primary   | Private for profit     | No  |
| Mzimba    | Vizimba Pvt Clinic       | Primary   | Private for profit     | No  |
| Mzimba    | WAFC pvt Clinic          | Primary   | Private for profit     | No  |
| Mzimba    | Katoto ESCOM Clinic      | Primary   | Statutory Organisation | No  |
| Mzimba    | Mzuzu ESCOM              | Primary   | Statutory Organisation | Yes |
| Mzimba    | Mzuzu Univ. Clinic       | Primary   | Statutory Organisation | No  |
| Neno      | Matandani HC             | Primary   | CHAM                   | Yes |
| Neno      | Neno Parish HC           | Primary   | CHAM                   | Yes |
| Neno      | Chifunga Hc              | Primary   | Government             | Yes |
| Neno      | Lisungwi HC              | Primary   | Government             | No  |
| Neno      | Luwani HC                | Primary   | Government             | Yes |
| Neno      | Magaleta HC              | Primary   | Government             | Yes |
| Neno      | Matope Rural Hospital    | Secondary | Government             | No  |
| Neno      | Neno Rural Hospital      | Secondary | Government             | Yes |
| Neno      | Nkula Hc                 | Primary   | Government             | No  |
| Neno      | Nsambe HC                | Primary   | Government             | No  |
| Neno      | Zalewa DAPP VCT Station  | Others    | NGO                    | No  |
| Neno      | Langwe Clinic            | Primary   | Private for profit     | No  |
| Neno      | Muferanji Clinic         | Primary   | Private for profit     | No  |
| Nkhatabay | Chilambwe HC             | Primary   | CHAM                   | No  |
| Nkhatabay | Chombe Estate Dispensary | Primary   | Company                | No  |
| Nkhatabay | Kawalazi Estate Clinic   | Primary   | Company                | No  |
| Nkhatabay | Visala Dispensary        | Primary   | Company                | Yes |
| Nkhatabay | Bula HC                  | Primary   | Government             | Yes |
| Nkhatabay | Chesamu                  | Primary   | Government             | Yes |
| Nkhatabay | Chikwina HC              | Primary   | Government             | Yes |
| Nkhatabay | Chintheche               | Secondary | Government             | Yes |
| Nkhatabay | Chisala HC               | Primary   | Government             | No  |
| Nkhatabay | Chitheka                 | Primary   | Government             | Yes |
| Nkhatabay | Kachere HC               | Primary   | Government             | Yes |
| Nkhatabay | Kande HC                 | Primary   | Government             | Yes |
| Nkhatabay | Khondowe                 | Primary   | Government             | No  |
| Nkhatabay | Liuzi                    | Primary   | Government             | No  |
| Nkhatabay | Lwazi                    | Primary   | Government             | No  |
| Nkhatabay | Maula HC                 | Primary   | Government             | No  |
| Nkhatabay | Mpamba                   | Primary   | Government             | Yes |
| Nkhatabay | Mzenga HC                | Primary   | Government             | Yes |
| Nkhatabay | Nkhatabay DHO            | Secondary | Government             | Yes |
| Nkhatabay | Ruarwe Dispensary        | Primary   | Government             | No  |
| Nkhatabay | Thungwa                  | Primary   | Government             | No  |



|            |                                |           |                    |     |
|------------|--------------------------------|-----------|--------------------|-----|
| Nkhatabay  | Usisya HC                      | Primary   | Government         | Yes |
| Nkhatabay  | BLM Nkhatabay                  | Primary   | NGO                | Yes |
| Nkhatabay  | Kavuze Estate                  | Primary   | Private for profit | No  |
| Nkhatabay  | Nkhatabay pvt Clinic           | Primary   | Private for profit | No  |
| Nkhatabay  | Raha pvt Clinic                | Primary   | Private for profit | No  |
| Nkhotakota | Alinafe HC                     | Primary   | CHAM               | Yes |
| Nkhotakota | Chididi                        | Primary   | CHAM               | No  |
| Nkhotakota | Kapili HC                      | Primary   | CHAM               | No  |
| Nkhotakota | Kasitu                         | Primary   | CHAM               | No  |
| Nkhotakota | Liwaladzi HC                   | Primary   | CHAM               | No  |
| Nkhotakota | St Annes Hospital              | Secondary | CHAM               | No  |
| Nkhotakota | Dwangwa Cane Grower Ltd Clinic | Primary   | Company            | Yes |
| Nkhotakota | Kasasa Clinic                  | Primary   | Company            | Yes |
| Nkhotakota | Benga                          | Primary   | Government         | Yes |
| Nkhotakota | Buwa Dispensary                | Primary   | Government         | Yes |
| Nkhotakota | Dwambazi Rural Hospital        | Secondary | Government         | Yes |
| Nkhotakota | Katimbira                      | Primary   | Government         | No  |
| Nkhotakota | Malowa Dispensary              | Primary   | Government         | No  |
| Nkhotakota | Matiki HC                      | Primary   | Government         | No  |
| Nkhotakota | Mpamantha Dispensary           | Primary   | Government         | Yes |
| Nkhotakota | Msenjere HC                    | Primary   | Government         | No  |
| Nkhotakota | MTOSA                          | Primary   | Government         | Yes |
| Nkhotakota | Mwansambo                      | Primary   | Government         | Yes |
| Nkhotakota | Ngala HC                       | Primary   | Government         | Yes |
| Nkhotakota | Nkhotakota DH                  | Secondary | Government         | Yes |
| Nkhotakota | Nkhunga HC                     | Primary   | Government         | Yes |
| Nkhotakota | Ukasi Clinic                   | Primary   | Government         | No  |
| Nkhotakota | Dwangwa BLM                    | Primary   | NGO                | Yes |
| Nkhotakota | NASO                           | Others    | NGO                | No  |
| Nkhotakota | Nkhotakota BLM                 | Primary   | NGO                | Yes |
| Nkhotakota | World Medical Fund             | Others    | NGO                | No  |
| Nkhotakota | Central 3 Clinic               | Primary   | Private for profit | Yes |
| Nkhotakota | Nyamvuu Clinic                 | Primary   | Private for profit | No  |
| Nsanje     | Chididi Mission                | Primary   | CHAM               | No  |
| Nsanje     | Kalembe HC                     | Secondary | CHAM               | No  |
| Nsanje     | Lulwe HC                       | Primary   | CHAM               | No  |
| Nsanje     | Trinity College of Nursing     | Others    | CHAM               | Yes |
| Nsanje     | Trinity Hospital               | Secondary | CHAM               | Yes |
| Nsanje     | Makhanga                       | Primary   | Government         | Yes |
| Nsanje     | Masenjere                      | Primary   | Government         | Yes |
| Nsanje     | Mbenje                         | Primary   | Government         | Yes |
| Nsanje     | Mchacha                        | Primary   | Government         | No  |
| Nsanje     | Mlolo HC                       | Primary   | Government         | Yes |
| Nsanje     | Ndamera                        | Primary   | Government         | Yes |
| Nsanje     | Nsanje District Hospital       | Secondary | Government         | Yes |
| Nsanje     | Nyamithuthu HC                 | Primary   | Government         | Yes |
| Nsanje     | Phokera                        | Primary   | Government         | No  |
| Nsanje     | Sankhulani HC                  | Primary   | Government         | Yes |
| Nsanje     | Sorgin Hc                      | Primary   | Government         | Yes |
| Nsanje     | Tengani HC                     | Primary   | Government         | Yes |
| Nsanje     | Chikonzero Clinic              | Primary   | Private for profit | No  |
| Nsanje     | Tikondane                      | Primary   | Private for profit | No  |
| Ntcheu     | Chigodi HC                     | Primary   | CHAM               | No  |
| Ntcheu     | Ganya Maternity                | Primary   | CHAM               | No  |

|          |                                |           |                    |     |
|----------|--------------------------------|-----------|--------------------|-----|
| Ntcheu   | Gowa HC                        | Primary   | CHAM               | No  |
| Ntcheu   | Lake View HC                   | Primary   | CHAM               | No  |
| Ntcheu   | Matanda HC                     | Primary   | CHAM               | No  |
| Ntcheu   | Mlanda                         | Primary   | CHAM               | No  |
| Ntcheu   | Muluma                         | Primary   | CHAM               | No  |
| Ntcheu   | Mzama                          | Primary   | CHAM               | No  |
| Ntcheu   | Nsipe Rural Hospital           | Primary   | CHAM               | Yes |
| Ntcheu   | Ntonda Rural Hospital          | Secondary | CHAM               | No  |
| Ntcheu   | Senzani HC                     | Primary   | CHAM               | Yes |
| Ntcheu   | Sharpe valley HC               | Primary   | CHAM               | Yes |
| Ntcheu   | Sister Theresa Rural Hospital  | Secondary | CHAM               | Yes |
| Ntcheu   | Tsangano HC                    | Primary   | CHAM               | No  |
| Ntcheu   | Billila                        | Primary   | Government         | Yes |
| Ntcheu   | Biriwiri HC                    | Primary   | Government         | Yes |
| Ntcheu   | Bwanje HC                      | Primary   | Government         | Yes |
| Ntcheu   | Chikande HC                    | Primary   | Government         | Yes |
| Ntcheu   | Doriko Dispensary              | Primary   | Government         | Yes |
| Ntcheu   | Dzonzi Mvai Dispensary         | Primary   | Government         | No  |
| Ntcheu   | Dzunje Dispensary              | Primary   | Government         | Yes |
| Ntcheu   | Kampanje                       | Primary   | Government         | No  |
| Ntcheu   | Kandeu Dispensary              | Primary   | Government         | Yes |
| Ntcheu   | Kapeni                         | Primary   | Government         | Yes |
| Ntcheu   | Kasinje HC                     | Primary   | Government         | Yes |
| Ntcheu   | Katsekera                      | Primary   | Government         | Yes |
| Ntcheu   | Likudzi U5 Clinic              | Primary   | Government         | No  |
| Ntcheu   | Lizulu HC                      | Primary   | Government         | Yes |
| Ntcheu   | Manjawira                      | Primary   | Government         | No  |
| Ntcheu   | Masasa Dispensary              | Primary   | Government         | Yes |
| Ntcheu   | Mlangeni / Police Dispensary   | Primary   | Government         | Yes |
| Ntcheu   | Mlangeni HC                    | Primary   | Government         | Yes |
| Ntcheu   | Mphepo zinayi Dispensary       | Primary   | Government         | No  |
| Ntcheu   | Namisu                         | Primary   | Government         | No  |
| Ntcheu   | Nsiyaludzu H.C.                | Primary   | Government         | Yes |
| Ntcheu   | Ntcheu DH                      | Secondary | Government         | Yes |
| Ntcheu   | Phanga Dispensary              | Primary   | Government         | No  |
| Ntcheu   | Ntcheu BLM                     | Primary   | NGO                | Yes |
| Ntcheu   | Chilitseni Clinic              | Primary   | Private for profit | No  |
| Ntcheu   | Chiole Pvt Clinic              | Primary   | Private for profit | No  |
| Ntchisi  | Mpherere HC                    | Primary   | CHAM               | No  |
| Ntchisi  | Chinguluwe                     | Primary   | Government         | Yes |
| Ntchisi  | Chinthembwe HC                 | Primary   | Government         | No  |
| Ntchisi  | Kamsonga HC                    | Primary   | Government         | No  |
| Ntchisi  | Kangolwa HC                    | Primary   | Government         | Yes |
| Ntchisi  | Khuwi HC                       | Primary   | Government         | No  |
| Ntchisi  | Malomo HC                      | Primary   | Government         | No  |
| Ntchisi  | Mkhuzi                         | Primary   | Government         | Yes |
| Ntchisi  | Mndinda Dispensary             | Primary   | Government         | No  |
| Ntchisi  | Mzandu HC                      | Primary   | Government         | Yes |
| Ntchisi  | Ntchisi DH                     | Secondary | Government         | Yes |
| Ntchisi  | Nthondo Dispensary             | Primary   | Government         | No  |
| Ntchisi  | Amayeso PVT Clinic             | Primary   | Private for profit | No  |
| Phalombe | Chiringa HC                    | Primary   | CHAM               | No  |
| Phalombe | Holy Family College of Nursing | Others    | CHAM               | No  |
| Phalombe | Holy Family Hospital           | Secondary | CHAM               | No  |

|          |                            |           |                    |     |
|----------|----------------------------|-----------|--------------------|-----|
| Phalombe | Mwanga HC                  | Primary   | CHAM               | Yes |
| Phalombe | Sukasanje HC               | Primary   | CHAM               | No  |
| Phalombe | Chiringa Maternity         | Primary   | Government         | No  |
| Phalombe | Chitekesa HC               | Primary   | Government         | No  |
| Phalombe | Kalinde HC                 | Primary   | Government         | No  |
| Phalombe | Migowi HC                  | Primary   | Government         | No  |
| Phalombe | Mkhwayi HC                 | Primary   | Government         | No  |
| Phalombe | Mpasa HC                   | Primary   | Government         | No  |
| Phalombe | Nazombe Health Centre      | Primary   | Government         | No  |
| Phalombe | Nkhulambe HC               | Primary   | Government         | No  |
| Phalombe | Phalombe DHO               | Others    | Government         | No  |
| Phalombe | Phalombe HC                | Secondary | Government         | Yes |
| Rumphi   | DGM Livingstonia           | Secondary | CHAM               | No  |
| Rumphi   | Luwichi Dispensary         | Primary   | CHAM               | No  |
| Rumphi   | Mlowe HC                   | Primary   | CHAM               | No  |
| Rumphi   | Nthenje HC                 | Primary   | CHAM               | No  |
| Rumphi   | St Patricks Rural Hospital | Primary   | CHAM               | Yes |
| Rumphi   | Tcharo                     | Primary   | CHAM               | No  |
| Rumphi   | Zunga HC                   | Primary   | CHAM               | No  |
| Rumphi   | Mchenga Clinic             | Primary   | Company            | No  |
| Rumphi   | Bolero                     | Secondary | Government         | Yes |
| Rumphi   | Bwengu HC                  | Primary   | Government         | Yes |
| Rumphi   | Chitimba HC                | Primary   | Government         | No  |
| Rumphi   | Jalawe HC                  | Primary   | Government         | No  |
| Rumphi   | Katowo Rural Hospital      | Secondary | Government         | No  |
| Rumphi   | Luzi HC                    | Primary   | Government         | No  |
| Rumphi   | Mhuju Rural Hospital       | Secondary | Government         | Yes |
| Rumphi   | Mphompha HC                | Primary   | Government         | Yes |
| Rumphi   | Mwazisi HC                 | Primary   | Government         | Yes |
| Rumphi   | Mzokoto HC                 | Primary   | Government         | No  |
| Rumphi   | Ng'onga HC                 | Primary   | Government         | No  |
| Rumphi   | Rumphi DHO                 | Secondary | Government         | Yes |
| Rumphi   | Thunduwike HC              | Primary   | Government         | Yes |
| Rumphi   | Rumphi BLM                 | Primary   | NGO                | Yes |
| Rumphi   | Eva Demaya pvt Clinic      | Primary   | Private for profit | Yes |
| Rumphi   | Hewe Medical Clinic        | Primary   | Private for profit | No  |
| Rumphi   | Kasambala Medical Centre   | Primary   | Private for profit | No  |
| Rumphi   | Kasambala pvt Clinic       | Primary   | Private for profit | No  |
| Rumphi   | Phwezi Clinic              | Primary   | Private for profit | No  |
| Rumphi   | Wongani Pvt Clinic         | Primary   | Private for profit | No  |
| Rumphi   | Yache                      | Primary   | Private for profit | No  |
| Salima   | Chitala                    | Primary   | CHAM               | No  |
| Salima   | Ndimoyo Palliative Care    | Primary   | CHAM               | Yes |
| Salima   | Ngozi HC                   | Primary   | CHAM               | No  |
| Salima   | Thavite HC                 | Primary   | CHAM               | No  |
| Salima   | Central East Zone          | Others    | Government         | No  |
| Salima   | Chagunda Dispensary        | Primary   | Government         | No  |
| Salima   | Chinguluwe                 | Primary   | Government         | Yes |
| Salima   | Chipoka                    | Secondary | Government         | Yes |
| Salima   | Kaphatenga                 | Primary   | Government         | No  |
| Salima   | Khombedza                  | Primary   | Government         | Yes |
| Salima   | Lifuwu HC                  | Primary   | Government         | Yes |
| Salima   | Mafco HC                   | Primary   | Government         | No  |
| Salima   | Maganga HC                 | Primary   | Government         | Yes |

|        |                                         |           |                    |     |
|--------|-----------------------------------------|-----------|--------------------|-----|
| Salima | Makioni                                 | Primary   | Government         | Yes |
| Salima | Mchoka                                  | Primary   | Government         | Yes |
| Salima | Parachute Battalion dispensary          | Primary   | Government         | No  |
| Salima | Salima DHO                              | Secondary | Government         | Yes |
| Salima | Life Line Mw HC                         | Primary   | NGO                | No  |
| Salima | Salima AIDS Support Organisation (SASO) | Others    | NGO                | No  |
| Salima | Salima BLM                              | Primary   | NGO                | Yes |
| Salima | Asante Pvt Clinic                       | Primary   | Private for profit | No  |
| Salima | Baptist Medical Clinic                  | Primary   | Private for profit | No  |
| Salima | Bliss Pvt Clinic                        | Primary   | Private for profit | No  |
| Salima | Katemela Clinic                         | Primary   | Private for profit | No  |
| Salima | Madalitso pvt clinic                    | Primary   | Private for profit | No  |
| Salima | Muchila Pvt Clinic                      | Primary   | Private for profit | No  |
| Thyolo | Chipho HC                               | Primary   | CHAM               | No  |
| Thyolo | Halena Oakely (Mtambanyama) Clinic      | Primary   | CHAM               | No  |
| Thyolo | Makapwa HC                              | Primary   | CHAM               | No  |
| Thyolo | Malamulo                                | Secondary | CHAM               | No  |
| Thyolo | Malamulo College of Health Sciences     | Secondary | CHAM               | No  |
| Thyolo | Mitengo HC                              | Primary   | CHAM               | No  |
| Thyolo | Molere HC                               | Primary   | CHAM               | No  |
| Thyolo | Conforzi Estate Clinic                  | Primary   | Company            | No  |
| Thyolo | Gotha Dispensary                        | Primary   | Company            | Yes |
| Thyolo | Makwasa                                 | Primary   | Company            | Yes |
| Thyolo | Masikini                                | Primary   | Company            | No  |
| Thyolo | Mpeni Tea Estate                        | Primary   | Company            | No  |
| Thyolo | Naming'omba Division Dispensary         | Primary   | Company            | No  |
| Thyolo | Sambankhanga                            | Primary   | Company            | No  |
| Thyolo | Satemwa Clinic                          | Primary   | Company            | No  |
| Thyolo | Zoa HC                                  | Primary   | Company            | Yes |
| Thyolo | Amalika HC                              | Primary   | Government         | No  |
| Thyolo | Bvumbwe HC                              | Primary   | Government         | No  |
| Thyolo | Bvumbwe Makungwa                        | Primary   | Government         | Yes |
| Thyolo | Bvumbwe Research HC                     | Primary   | Government         | Yes |
| Thyolo | Changata HC                             | Primary   | Government         | Yes |
| Thyolo | Chimaliro HC                            | Primary   | Government         | Yes |
| Thyolo | Chimvu                                  | Primary   | Government         | No  |
| Thyolo | Chingazi                                | Secondary | Government         | No  |
| Thyolo | Chizunga                                | Primary   | Government         | No  |
| Thyolo | Delule                                  | Primary   | Government         | No  |
| Thyolo | Dzimbiri HC                             | Primary   | Government         | No  |
| Thyolo | Gombe                                   | Primary   | Government         | No  |
| Thyolo | Kasembeleka                             | Primary   | Government         | No  |
| Thyolo | Khonjeni HC                             | Primary   | Government         | Yes |
| Thyolo | Mafisi HC                               | Primary   | Government         | No  |
| Thyolo | Magunda Clinic                          | Primary   | Government         | Yes |
| Thyolo | Makungwa                                | Primary   | Government         | No  |
| Thyolo | Mapanga Clinic                          | Primary   | Government         | No  |
| Thyolo | Mbalanguzi Dispensary                   | Primary   | Government         | No  |
| Thyolo | Mchima Main                             | Primary   | Government         | No  |
| Thyolo | Mianga HC                               | Primary   | Government         | No  |
| Thyolo | Mikolongwe HC                           | Primary   | Government         | Yes |
| Thyolo | Mindale                                 | Primary   | Government         | No  |
| Thyolo | Mwalawanthunzi Clinic                   | Primary   | Government         | No  |

|        |                              |           |                    |     |
|--------|------------------------------|-----------|--------------------|-----|
| Thyolo | Nasonia                      | Primary   | Government         | No  |
| Thyolo | Nkhataombe                   | Primary   | Government         | No  |
| Thyolo | Nsabwe Dispensary            | Primary   | Government         | Yes |
| Thyolo | Nthekerani HC                | Secondary | Government         | Yes |
| Thyolo | Sukasanje Dispensary         | Primary   | Government         | No  |
| Thyolo | Thomasi                      | Primary   | Government         | No  |
| Thyolo | Thyolo District Hospital     | Secondary | Government         | Yes |
| Thyolo | Bvumbwe BLM                  | Primary   | NGO                | Yes |
| Thyolo | Thyolo MSF                   | Others    | NGO                | No  |
| Thyolo | Jeofia                       | Primary   | Private for profit | No  |
| Thyolo | Kadango HC                   | Primary   | Private for profit | No  |
| Thyolo | Mdziwika Clinic              | Primary   | Private for profit | No  |
| Thyolo | Monekera Pvt                 | Primary   | Private for profit | No  |
| Thyolo | Thunga Clinic                | Primary   | Private for profit | No  |
| Zomba  | Chilipa HC                   | Primary   | CHAM               | No  |
| Zomba  | Chipini                      | Primary   | CHAM               | Yes |
| Zomba  | H Parker Sharp Dispensary    | Primary   | CHAM               | No  |
| Zomba  | Magomero HC                  | Primary   | CHAM               | Yes |
| Zomba  | Matiya Dispensary            | Primary   | CHAM               | Yes |
| Zomba  | Mayaka HC                    | Primary   | CHAM               | No  |
| Zomba  | Namasalima HC                | Primary   | CHAM               | Yes |
| Zomba  | Namikango                    | Primary   | CHAM               | No  |
| Zomba  | Nkasala HC                   | Primary   | CHAM               | Yes |
| Zomba  | Pirimiti HC                  | Primary   | CHAM               | No  |
| Zomba  | St Lukes Nursing             | Others    | CHAM               | No  |
| Zomba  | St Lukes Rural Hospital      | Secondary | CHAM               | No  |
| Zomba  | Thondwe Pastoral Clinic      | Primary   | CHAM               | Yes |
| Zomba  | Zomba Adventist Clinic       | Primary   | CHAM               | No  |
| Zomba  | Wallace Clinic               | Primary   | Company            | No  |
| Zomba  | Airwing Dispensary           | Primary   | Government         | No  |
| Zomba  | Bimbi HC                     | Primary   | Government         | Yes |
| Zomba  | Chamba                       | Primary   | Government         | Yes |
| Zomba  | Chingale HC                  | Primary   | Government         | Yes |
| Zomba  | Chisi Island Health Centre   | Primary   | Government         | No  |
| Zomba  | Cobbe Barracks               | Primary   | Government         | No  |
| Zomba  | Domasi Rural Hospital        | Secondary | Government         | Yes |
| Zomba  | Forestry Dispensary          | Primary   | Government         | No  |
| Zomba  | Lambulira HC                 | Primary   | Government         | Yes |
| Zomba  | Likangalara HC               | Primary   | Government         | Yes |
| Zomba  | Makwapala HC                 | Primary   | Government         | Yes |
| Zomba  | Matawale HC                  | Primary   | Government         | No  |
| Zomba  | M'mambo                      | Primary   | Government         | No  |
| Zomba  | Muluzi Barracks              | Primary   | Government         | No  |
| Zomba  | Municipality Assembly Clinic | Primary   | Government         | No  |
| Zomba  | Naisi HC                     | Primary   | Government         | No  |
| Zomba  | Nasawa/Chimwalira HC         | Primary   | Government         | Yes |
| Zomba  | Ngwelero HC                  | Primary   | Government         | Yes |
| Zomba  | Police Hospital              | Primary   | Government         | No  |
| Zomba  | State House Dispensary       | Primary   | Government         | Yes |
| Zomba  | Thondwe HC                   | Primary   | Government         | Yes |
| Zomba  | Zomba Central Hospital       | Tertiary  | Government         | Yes |
| Zomba  | Zomba DHO                    | Others    | Government         | No  |
| Zomba  | Zomba Mental Hospital        | Tertiary  | Government         | Yes |
| Zomba  | Zomba Nursing School         | Others    | Government         | No  |

|       |                              |         |                        |     |
|-------|------------------------------|---------|------------------------|-----|
| Zomba | Zomba Prison Dispensary      | Primary | Government             | No  |
| Zomba | Zomba Zonal Office           | Others  | Government             | No  |
| Zomba | Compassionate Mission Clinic | Primary | NGO                    | No  |
| Zomba | Dignitas International       | Others  | NGO                    | No  |
| Zomba | Zomba BLM                    | Primary | NGO                    | Yes |
| Zomba | AHI Clinic                   | Primary | Private for profit     | Yes |
| Zomba | Chinamwali Pvt Clinic        | Primary | Private for profit     | No  |
| Zomba | Mpunga Clinic                | Primary | Private for profit     | No  |
| Zomba | Chancellor College           | Primary | Statutory Organisation | No  |

## 1.0 Background

The current human resources for health (HRH) crisis situation in Malawi is in part due to a variety of historical and developmental challenges, the extent of which have severely weakened the health care delivery system. In response, the Malawi health sector has adopted concerted and strategic efforts to better manage its scarce resources through the development and roll-out of the *Health Sector-wide Approach* (SWAp) joint *Programme of Work* (2004-2010), which further encompasses the *6-year Emergency Pre-service Training Plan*, launched in 2002, and subsequent *6-year Emergency Human Resource Programme* (EHRP) of April 2004. The SWAp programme of work incorporates a comprehensive development and implementation programme for HRH policy objectives and system requirements to address the critical HRH situation in Malawi.

Within the context of ongoing health systems strengthening initiatives, the MoH aims to collate and maintain accurate high-quality, and timely HRH data to inform the development, implementation and monitoring of comprehensive sector-wide HRH policies, plans and practices. Specific interventions for institutionalizing and maintaining improved HRH information and data systems are reflected in the *Strategic Human Resources for Health Framework* for the Health Sector and are guided by the supplementary *HRH Monitoring & Evaluation Framework* as part of broader SWAp M&E.

Against this background a 'Headcount' exercise was undertaken in August 2005, covering MoH facility based staff in Malawi, to gather data on the actual number and distribution of staff deployed (established staff in post) as well as vacancy trends and levels. The main focus of this Headcount aimed at verifying and reconciling staff records with the new government payroll system. This initiative therefore was seen as an important first step in institutionalizing the regular collation and management of accurate and up-to-date staffing information for subsequent use in key HRH planning and decision making, administer day-to-day HRH policies and practices, and update personnel records. In addition, the results of the exercise were to be used, *inter alia*, as the basis for monitoring the impact on recruitment and staff retention of the 52% salary top-up incentives that were introduced in April 2005 by MoH, with financial support from DFID. A fundamental implementation failure with this Headcount was that the exercise lacked structure or coordination. From the terms of reference and final report produced, the following observations and limitations were noted:

- i. The planned data collection design methodology lacked attention to detail and was incomplete
- ii. The data collection instrument is not available in the report, therefore it is unclear as to what primary data was collected, or whether the instrument used was appropriately pilot tested
- iii. Prior guidance, training or orientation was not adequately provided to data collection teams and others involved in the implementation process
- iv. There was no clear communication & coordination plan in place, which should have been cascaded down to the districts. As a result, DHOs could not provide adequate or advance communication to members of staff in their districts, resulting in the data collection teams failing to locate and/or interview staff who were not present in their respective duty stations at the time of the data collection.
- v. Implementation was further compromised by the lack of quality assurance / checks & balances built in to the process. For example:

- Some staff did not submit their completed forms for data capturing.
  - Incidents of duplication as a result of staff submitting more than one data form
  - Instances of employees submitting inaccurate information. i.e. it was observed that a number of fields were left blank or incomplete on many data forms
- vi. Due to logistical and capacity constraints, the data input and data analysis phases of the exercise schedule lapsed, seriously compromising the availability validity and accuracy of the data
- vii. As a result of the above constraints the MoH was unable to input and clean the available data and complete the headcount exercise to the required quality and standard

The MoH aims to implement a fresh HRH Data Census, which will be fully expanded to cover all registered public and private sector health facilities, incorporating NGOs and the for-profit private sector. A suitably qualified and experienced agency will be sourced and contracted to carry out the HRH Data Census under the guidance of the Ministry of Health.

## 2.0 Objectives of the HRH Census

Key objectives of the HRH Data Census are to obtain primary HRH data and information in the form of a “snap-shot picture” of current availability, numbers, profiles, skills-mix, and distribution of trained health workers, including management and support staff, employed in registered public and private sector health facilities across all districts of Malawi. The HRH Data Census will help calculate and refine accurate and reliable HRH baseline data to facilitate effective sector-wide HRH planning, implementation and monitoring, within the scope of the HRH M&E Framework.

The primary objective is to ensure that targeted and adequate policies, strategies and programmes are developed, implemented and monitored in order to address the current inadequacy and mal-distribution of HRH in the country.

## 3.0 SCOPE OF WORK

### Oversight & Accountability:

The contracted agency will be expected to work under the direct supervision of the HRH Census Coordination Team (CCT), established by the HRH Technical Working Group (TWG), which shall have delegated responsibility for the ‘oversight and supervision’ of the process on behalf of the MoH. The CCT is comprised of selected MOH officials, Technical Assistants and representatives from partners such as the World Bank and DFID. The CCT will have an oversight role during the entire HRH Data Census exercise until the completion and dissemination of the final census report. The CCT will be responsible for evaluating the proposals from firms on behalf of the internal procurement committee, reviewing the census methodology including final approval of the census instrument and implementation plan, and will regularly report back on progress made on the HRH Data Census to the HR TWG.

- (i) Conduct a facility-based HRH data census using a pre-determined data collection instrument and electronic database, supplied by the MoH, which will be developed in conjunction with World Bank and adapted context-specific by MOH to collect data on HRH at facility level. It is anticipated that the contracted agency will constitute, train and deploy



appropriate data collection teams in each district, depending on the number and location of facilities to be covered. The MoH will provide, in advance, a detailed list, including physical location and contact point, for all registered facilities to be covered by the Data Census. The contracted agency will determine its personnel / logistics needs and other inputs based on the established number and spread of facilities to be covered per district. It is further expected that the survey instrument and process methodology be pre-tested by the agency prior to full-scale implementation of the survey.

- (ii) Facilitate establishment of linkages/reporting mechanisms between facility and the district health offices. The contracted agency will ensure that for each facility visited, the established HR focal point and responsible district HR officer (MoH) are contacted in order to report an updated HRH picture of the facility to the DHO. The mode of getting updated HRH data to the district level on a regular basis will also be identified and assessed.
- (iii) Facilitate establishment of linkages/reporting mechanisms between district and zonal health support offices. Linkages as indicated in (2) above will also be facilitated between the MoH zonal M&E officer and the district HR officer (MoH).
- (iv) Enter collected data into a consolidated database at the district level. When the data collection process is completed at the district level, the contracted agency will enter the data into a pre-designed database, supplied by MoH. Thereafter the agency will work closely with the established district HR officer (MoH) and zonal M&E officer to demonstrate the database and the mode of entering data to and updating the consolidated district database in future.
- (v) Enter collected data into a database at national level for analysis. The contracted agency will collate all HRH data submitted from district level and enter this data into a consolidated national database, supplied by MoH. The agency will undertake a detailed analysis of the HRH data at national level and generate a final report indicating key HRH trends and gaps with regard to the availability, numbers, profiles, skills-mix, and distribution of the health workforce. Thereafter the agency will work closely with established MoH HRH officers and explain the database as well as the modes of future entering and analysis of the collected data.

#### Key points and observations

- (I) Enumeration of all registered private and public health facilities will be undertaken by the MoH, and communicated in advance
- (II) Pre-testing of the data collection instrument and survey will be undertaken by the contracted agency, with brief summary feedback reports provided to the HRH Census Coordination Team, highlighting specific weaknesses and proposed modifications to the process methodology.
- (III) Adequate advance notification and instruction will be communicated by the MoH through the national & local press, radio / TV and other formal official channels, making it compulsory for individual health workers to report at their station on the day(s) fixed for the HRH Census, bringing with them specific information and/or supporting documentation as indicated (e.g. employment number, etc)

- (IV) Specific information on 'Dual Employment' of health workers may be enquired during the filling up of the census tool as well as determined during the analysis phase.

#### 4.0 Qualification of Consultant

The consultant team shall comprise a Project Manager, four professional staff and enumerators. The minimum qualifications for the consultants are as follows:

##### 4.1 Project Manager

Project Manager shall have the following attributes:

###### Essential

- A postgraduate degree in an area relevant to the assignment such as Public Health, Epidemiology, Demography, Health Systems Research, Human Resources Development/Management, Statistics and Management Information systems
- Experience in organizing health surveys/health census or health research
- At least 10 years experience in public health/health development
- Experience as a consultant in international health in the sub Saharan region
- Excellent interpersonal ,facilitation, coordination and communication skills and team working

###### Desirable

- Awareness of key health issues including health sector reforms, Swap and Essential Health Package (EHP)
- Experience in project management
- Experience in designing and implementing HR systems and practices
- Ability to budget and monitor financial expenditures
- Knowledge of organization of health services in Malawi

##### 4.2 Other Professional Team Members

Other professional team members shall have the following attributes:

###### Essential

- A post graduate degree in an area relevant to the assignment such as Public Health, Epidemiology, Demography, Health Economics ,Health Systems Research, Human Resource Development/Management, Statistics and management information system
- Has participated in at least two national surveys or research
- At least five years experience in public health/health development
- At least five years experience as a consultant in international health

###### Desirable

- Awareness in key health issues such as Essential Health Package etc
- Experience in project management and in particular management of large scale surveys
- Knowledge of statistical packages in health
- Ability to communicate in local language

#### 4.6 Data Collectors/ Enumerators

Enumerators shall have a minimum of diploma in a health related field, management information system or statistics and must have participated in at least one national level survey

#### 5.0 Time frame and expected Inputs

The HRH Data Census is expected to be carried out From November to December 2007 with a detailed final report prepared and submitted by 23<sup>rd</sup> December 2007

The assignment is estimated to require 50 Person Days of input by professional consultants in addition to enumerators.

#### 6.0 Obligations of the Ministry of Health

MOH would provide:

- a) relevant policy documents and reports including electronic information and data bases
- b) HRH census tool
- c) technical guidance and supervision by the HRH Census Coordination Team (CCT) constituted by the Ministry
- d) List of all facilities (public and private sector) to be covered
- e) contact persons in the districts and zones
- f) letter of introduction to the zones and districts
- g) adequate advance notification and instructions to health workers through media

The Client will not provide office accommodation and or transport to consultants or contractors

# Government of Malawi



## Ministry of Health

### Malawi Health Sector Employee Census: 2007

#### TOOL 1: FACILITY INFORMATION

Note: Only one form to be filled per facility (public/private sector)  
(Please ✓ tick wherever applicable)

| Part A: CENSUS INTERVIEW DETAILS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 Names of Interviewers _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2. Name of Supervisor: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 3. Date of first visit to the facility:<br>(DD/MM/YYYY)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div> |
| 4. Commencement Time: _____ (HH/MM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Completion time: _____ (HH/MM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5. Date of second visit to the facility:<br>(DD/MM/YYYY)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div> |
| 6. Commencement Time: _____ (HH/MM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Completion time: _____ (HH/MM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 7. Date of third visit to the facility:<br>(DD/MM/YYYY)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div> |
| 8. Commencement Time: _____ (HH/MM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Completion time: _____ (HH/MM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 9. Total number of days that the facility has been visited:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 10. Total number of hours and minutes spent in the facility:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div>                                                                                                                                                                                                                                                                                                 |
| Part B: FACILITY DETAILS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| i) Name of the Facility (to be taken from the list of facilities): _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| ii) Health facility code as indicated in the health facility registry provided to you:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 5px;">MWIHF</div> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div> </div> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| For e.g. 000001 is code for Achidya Clinic in Dedza district                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

*Note: Put 999999 if facility not in the list*

iii) Postal address of the facility (*put 9999 if any item does not apply*):

iiia) Street number and Name: \_\_\_\_\_

iiib) City/Town/Village: \_\_\_\_\_

iiic) Postal code: \_\_\_\_\_

iiid) PO Box: \_\_\_\_\_

iiie) District: 10 ☐ Chitipa 11 ☐ Karonga 12 ☐ Rumphi 13 ☐ Mzimba 14 ☐ Nkhatabay  
15 ☐ Likoma 16 ☐ Kasungu 17 ☐ Nkhotakota 18 ☐ Ntchisi 19 ☐ Mchinji  
20 ☐ Salima 21 ☐ Dowa 22 ☐ Lilongwe 23 ☐ Dedza 24 ☐ Ntcheu  
25 ☐ Balaka 26 ☐ Mangochi 27 ☐ Machinga 28 ☐ Zomba 29 ☐ Phalombe  
30 ☐ Mulanje 31 ☐ Thyolo 32 ☐ Blantyre 33 ☐ Mwanza 34 ☐ Chiradzulu  
35 ☐ Chikwawa 36 ☐ Nsanje 37 ☐ Neno

iiif) Zone: 1 ☐ North 2 ☐ Central East 3 ☐ Central West 4 ☐ South East 14 ☐ South West

iiie) Other address related information, if any: \_\_\_\_\_

iv) Contact information for the facility (*put 9999 if any item does not apply*):

iva) Main phone number: \_\_\_\_\_

ivb) Main fax number: \_\_\_\_\_

ivc) Main e-mail address: \_\_\_\_\_

ivd) Name of the Director/Chief/In-charge: \_\_\_\_\_

ive) Director's telephone number: \_\_\_\_\_

v) Location: 1 ☐ Urban 2 ☐ Rural 3 ☐ Semi-Urban

vi) Classification of Facility

- |                                                              |                                                                                |
|--------------------------------------------------------------|--------------------------------------------------------------------------------|
| 1 <input type="checkbox"/> MoH Headquarters                  | 2 <input type="checkbox"/> Zonal Health Support Office                         |
| 3 <input type="checkbox"/> Central Hospital                  | 4 <input type="checkbox"/> Mental Hospital                                     |
| 5 <input type="checkbox"/> District Hospital                 | 6 <input type="checkbox"/> Community Hospital                                  |
| 7 <input type="checkbox"/> Rural Hospital                    | 8 <input type="checkbox"/> Private Hospital                                    |
| 9 <input type="checkbox"/> Government Clinic                 | 10 <input type="checkbox"/> Private Clinic                                     |
| 11 <input type="checkbox"/> Urban Health Centre              | 12 <input type="checkbox"/> Rural Health Centre                                |
| 13 <input type="checkbox"/> Health Post                      | 13 <input type="checkbox"/> Maternity Clinic (stand-alone)                     |
| 15 <input type="checkbox"/> Maternity Hospital (stand-alone) | 16 <input type="checkbox"/> Dispensary                                         |
| 17 <input type="checkbox"/> Diagnostic Lab.(stand-alone)     | 18 <input type="checkbox"/> HIV/AIDS Testing & Counseling Centre (stand-alone) |
| 19 <input type="checkbox"/> Nutrition Rehabilitation Unit    | 20 <input type="checkbox"/> Rehabilitation Centre                              |
| 21 <input type="checkbox"/> Health Training Institution      | 22 <input type="checkbox"/> Health Research Institution                        |
| 23 <input type="checkbox"/> Health Project Office            |                                                                                |
| 25 <input type="checkbox"/> Other: (please specify) _____    |                                                                                |

vii) Level of facility

- 1 ☐ Primary Health Care Facility (Clinic, Rural Health Centre, Health Post, Urban Health Centre, Dispensary, Maternity Clinic, HTC & Rehabilitation Unit/Centre)
- 2 ☐ Secondary Health Care Facility (District Hospital, Rural Hospital, Community Hospital,

|                                                                           |                          |                                                                                                                                                                                                                                                                                                 |
|---------------------------------------------------------------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Maternity Hospital & Private Hospital)                                    |                          |                                                                                                                                                                                                                                                                                                 |
| 3                                                                         | <input type="checkbox"/> | Tertiary Health Care Facility (Mental Hospital, Central Hospital)                                                                                                                                                                                                                               |
| 4                                                                         | <input type="checkbox"/> | Others (MoH Headquarters, Zonal Health Support Office, DHO without hospital, Health training/ Research Institution, Health Project Office, etc.)                                                                                                                                                |
| viii) Ownership (You may ✓ tick in more than one box wherever applicable) |                          |                                                                                                                                                                                                                                                                                                 |
| 1                                                                         | <input type="checkbox"/> | Government of Malawi (MoH <input type="checkbox"/> , Local Government <input type="checkbox"/> , Military <input type="checkbox"/> , Police <input type="checkbox"/> , Forestry <input type="checkbox"/> , MoE <input type="checkbox"/> , Others <input type="checkbox"/> please specify _____) |
| 2                                                                         | <input type="checkbox"/> | CHAM                                                                                                                                                                                                                                                                                            |
| 3                                                                         | <input type="checkbox"/> | NGO: (please specify) _____                                                                                                                                                                                                                                                                     |
| 4                                                                         | <input type="checkbox"/> | Private for Profit: (please specify) _____                                                                                                                                                                                                                                                      |
| 5                                                                         | <input type="checkbox"/> | Other: (please specify) _____                                                                                                                                                                                                                                                                   |

| Part C: DEPARTMENT/UNIT DETAILS                                               |                                  |                                                         |
|-------------------------------------------------------------------------------|----------------------------------|---------------------------------------------------------|
| Categories of Departments/Units in various health sector facilities in Malawi |                                  |                                                         |
| 1. Ministry of Health Headquarters                                            |                                  |                                                         |
| 101 <input type="checkbox"/>                                                  | Planning & Policy Development    | 102 <input type="checkbox"/> Finance and Administration |
| 103 <input type="checkbox"/>                                                  | Preventive Health Services       | 104 <input type="checkbox"/> Clinical Services          |
| 105 <input type="checkbox"/>                                                  | Health Technical Support Service | 106 <input type="checkbox"/> Nursing Services           |
| 107 <input type="checkbox"/>                                                  | Central Medical Stores           | 108 <input type="checkbox"/> CHSU                       |
| 109 <input type="checkbox"/>                                                  | Health Education Section         | 110 <input type="checkbox"/> Other, specify _____       |
| 2. Zonal Health Support Office (ZHSO)                                         |                                  |                                                         |
| 201 <input type="checkbox"/>                                                  | ZHSO                             |                                                         |
| 3. Central Hospital                                                           |                                  |                                                         |
| 301 <input type="checkbox"/>                                                  | Internal Medicine                | 302 <input type="checkbox"/> Surgery                    |
| 303 <input type="checkbox"/>                                                  | Obstetrics and Gynaecology       | 304 <input type="checkbox"/> Paediatrics                |
| 305 <input type="checkbox"/>                                                  | Ophthalmology                    | 306 <input type="checkbox"/> Dentistry                  |
| 307 <input type="checkbox"/>                                                  | Anaesthesiology                  | 308 <input type="checkbox"/> Dermatology                |
| 309 <input type="checkbox"/>                                                  | Laboratory Services              | 310 <input type="checkbox"/> Radiology                  |
| 311 <input type="checkbox"/>                                                  | Administration                   | 312 <input type="checkbox"/> Pharmacy                   |
| 313 <input type="checkbox"/>                                                  | Catering                         | 314 <input type="checkbox"/> Medical Engineering        |
| 315 <input type="checkbox"/>                                                  | Others, specify.....             | 316 <input type="checkbox"/> Transport                  |
| 317 <input type="checkbox"/>                                                  | Laundry                          | 318 <input type="checkbox"/> Accounts                   |
| 319 <input type="checkbox"/>                                                  | 320 <input type="checkbox"/>     | 321 <input type="checkbox"/>                            |
| 4. Mental Hospital                                                            |                                  |                                                         |
| 401 <input type="checkbox"/>                                                  | Psychiatry                       | 402 <input type="checkbox"/> Clinical                   |
| 403 <input type="checkbox"/>                                                  | Nursing                          | 404 <input type="checkbox"/> Rehabilitation             |
| 405 <input type="checkbox"/>                                                  | Administration                   | 406 <input type="checkbox"/> Others, specify.....       |
| 5. District Health Office with District Hospital                              |                                  |                                                         |
| 501 <input type="checkbox"/>                                                  | Internal Medicine                | 502 <input type="checkbox"/> Surgery                    |
| 503 <input type="checkbox"/>                                                  | Obstetrics and Gynaecology       | 504 <input type="checkbox"/> Paediatrics                |
| 505 <input type="checkbox"/>                                                  | Ophthalmology                    | 506 <input type="checkbox"/> Dermatology                |
| 507 <input type="checkbox"/>                                                  | Anaesthesiology                  | 508 <input type="checkbox"/> Clinical Nursing           |
| 509 <input type="checkbox"/>                                                  | Laboratory Services              | 510 <input type="checkbox"/> Radiology                  |
| 511 <input type="checkbox"/>                                                  | Health Education                 | 512 <input type="checkbox"/> Pharmacy                   |
| 513 <input type="checkbox"/>                                                  | Administration                   | 514 <input type="checkbox"/> Disease Control            |
| 515 <input type="checkbox"/>                                                  | Catering                         | 516 <input type="checkbox"/> Env. Health                |
| 517 <input type="checkbox"/>                                                  | Laundry & Housekeeping           | 518 <input type="checkbox"/> Rehabilitation             |
| 519 <input type="checkbox"/>                                                  | Others, specify.....             | 520 <input type="checkbox"/> Transport                  |
| 521 <input type="checkbox"/>                                                  | Stores Management                | 522 <input type="checkbox"/> Accounts                   |
| 523 <input type="checkbox"/>                                                  | MTCE services                    | 524 <input type="checkbox"/> Laundry & Housekeeping     |
| 525 <input type="checkbox"/>                                                  | 526 <input type="checkbox"/>     | 527 <input type="checkbox"/>                            |
| 6. District Health Office without District Hospital                           |                                  |                                                         |
| 601 <input type="checkbox"/>                                                  | Preventive & Community Health    | 602 <input type="checkbox"/> Curative Services          |
| 603 <input type="checkbox"/>                                                  | Accounts                         | 604 <input type="checkbox"/> Administration             |
| 605 <input type="checkbox"/>                                                  | Others, specify.....             |                                                         |

7. Community Hospital/Health Centre

- |                                                   |                                       |                                             |
|---------------------------------------------------|---------------------------------------|---------------------------------------------|
| 701 <input type="checkbox"/> Clinical             | 702 <input type="checkbox"/> Dental   | 703 <input type="checkbox"/> Laboratory     |
| 704 <input type="checkbox"/> Nursing              | 705 <input type="checkbox"/> Pharmacy | 706 <input type="checkbox"/> Preventive     |
| 707 <input type="checkbox"/> Administration       | 708 <input type="checkbox"/> Accounts | 709 <input type="checkbox"/> Office Service |
| 710 <input type="checkbox"/> Catering             | 711 <input type="checkbox"/> Laundry  | 712 <input type="checkbox"/> Catering       |
| 713 <input type="checkbox"/> Others, specify..... |                                       |                                             |

8. Urban/Rural Health Centre

- |                                             |                                        |                                                   |
|---------------------------------------------|----------------------------------------|---------------------------------------------------|
| 801 <input type="checkbox"/> Clinical       | 802 <input type="checkbox"/> Dental    | 803 <input type="checkbox"/> Laboratory           |
| 804 <input type="checkbox"/> Nursing        | 805 <input type="checkbox"/> Pharmacy  | 806 <input type="checkbox"/> Preventive           |
| 807 <input type="checkbox"/> Administration | 808 <input type="checkbox"/> Nutrition | 809 <input type="checkbox"/> Others, specify..... |

9. Dispensary/Private Hospital/Clinic

- |                                             |                                        |                                                   |
|---------------------------------------------|----------------------------------------|---------------------------------------------------|
| 901 <input type="checkbox"/> Clinical       | 902 <input type="checkbox"/> Dental    | 903 <input type="checkbox"/> Laboratory           |
| 904 <input type="checkbox"/> Nursing        | 905 <input type="checkbox"/> Pharmacy  | 906 <input type="checkbox"/> Preventive           |
| 907 <input type="checkbox"/> Administration | 908 <input type="checkbox"/> Nutrition | 913 <input type="checkbox"/> Others, specify..... |

Annex 7: Individual Level Questionnaire

Government of Malawi



Ministry of Health

Malawi Health Sector Employee Census: 2007  
TOOL 2: Questionnaire for Individual Health Workers

*Note: Only one form to be filled per health worker in each facility (public/private sector) that is visited*

(Please ✓ tick wherever applicable)

|                                                                                                                                                                                                                                                        |                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| <b>Part A: INTERVIEW DETAILS</b>                                                                                                                                                                                                                       |                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 Name of Interviewer..... 2. Name of Supervisor: .....                                                                                                                                                                                                |                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3. Date of the Interview: (DD/MM/YYYY)                                                                                                                                                                                                                 | <table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>                                                                         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                        |                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4. Start Time: (HH:MM): .....                                                                                                                                                                                                                          | 5. End time: (HH:MM): .....                                                                                                                                                         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Questions 6 & 7 to be answered if health worker is not available even after three visits to the facility                                                                                                                                               |                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6. Name and title of respondent if individual staff member is not interviewed:<br>.....                                                                                                                                                                |                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7. Reason for not interviewing the individual staff member                                                                                                                                                                                             |                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <input type="checkbox"/> 1. Sick and out of area/facility                                                                                                                                                                                              | <input type="checkbox"/> 2. Attending sick relative/ funeral                                                                                                                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <input type="checkbox"/> 3. Attending overseas/out-station training                                                                                                                                                                                    | <input type="checkbox"/> 4. Other, specify.....                                                                                                                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Part A: Personal Details</b>                                                                                                                                                                                                                        |                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A.1 Title: 1 <input type="checkbox"/> Mr. 2 <input type="checkbox"/> Mrs. 3 <input type="checkbox"/> Ms. 4 <input type="checkbox"/> Dr. 5 <input type="checkbox"/> Other, Specify .....                                                                |                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A.2 Full Name: First Name: ..... Surname: .....<br>Middle Name: ..... Maiden Name (if applicable): .....                                                                                                                                               |                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A.3 Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female                                                                                                                                                                              |                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A.4 Nationality: 1 <input type="checkbox"/> Malawian <input type="checkbox"/> 2 <input type="checkbox"/> Others, specify (if possible, as stated on Passport):.....                                                                                    |                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A.5 If non-Malawian, Please state your status in the health sector in Malawi<br>1 =UNV; 2= Peace Corp 3=Other foreign – volunteer; 4=Other foreign non-volunteer worker; Other specify .....                                                           |                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A.6 Date of Birth: (DD/MM/YYYY)                                                                                                                                                                                                                        | <table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>                                                                         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                        |                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A.7 Marital Status: 1 <input type="checkbox"/> Single 2 <input type="checkbox"/> Married 3 <input type="checkbox"/> Divorced 4 <input type="checkbox"/> Widowed 5 <input type="checkbox"/> Separated<br>6 <input type="checkbox"/> Estranged/Abandoned |                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Part B: Employment Status</b>                                                                                                                                                                                                                       |                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| B.1 Employment Number (As stated on pay slip or payroll):                                                                                                                                                                                              | <table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                        |                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |



|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Not available | Reasons for not being available.....<br>.....<br>B.2 Current position and Occupational Classification:<br>What is your official position in this facility/institution? _____<br><div style="text-align: right;">[specify]:</div> <div style="display: flex; justify-content: space-between; align-items: center;"> <div>Enter Code as indicated in Appendix 1: Reference Sheet</div> <div style="border: 1px solid black; width: 40px; height: 20px; display: flex; align-items: center; justify-content: center;"> <div style="width: 10px; height: 10px; border: 1px solid black;"></div> <div style="width: 10px; height: 10px; border: 1px solid black;"></div> <div style="width: 10px; height: 10px; border: 1px solid black;"></div> <div style="width: 10px; height: 10px; border: 1px solid black;"></div> </div> </div>                                                                                                                                                                   |
| B.3                                    | Date of appointment to the current position:<br><div style="text-align: center;">(DD/MM/YYYY)</div> <div style="display: flex; justify-content: center; align-items: center;"> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 5px;"></div> </div>                                                                                       |
| B.4                                    | Name of the facility & unit/department currently working in: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| B.4a                                   | Health facility code as per Appendix 2 (Facility List) _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| B.4b                                   | Enter Dept./Unit Code as per Appendix 1 _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| B.5                                    | How many hours per week do you work in the department/unit where you belong?<br>1    =<10    2 <input type="checkbox"/> >10-20    3 <input type="checkbox"/> >20-30    4 <input type="checkbox"/> >30-40    5 <input type="checkbox"/> >40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| B.6                                    | Do you work in other departments in this facility? <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| B.7                                    | How many hours per week do you work in the other departments/units?<br>1 <input type="checkbox"/> =<10    2 <input type="checkbox"/> <input type="checkbox"/> >10-20    3 <input type="checkbox"/> <input type="checkbox"/> >20-30    4 <input type="checkbox"/> <input type="checkbox"/> >30-40    5 <input type="checkbox"/> <input type="checkbox"/> >40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| B.8                                    | Do you work in another health-related facility apart from this one? <input type="checkbox"/> Yes <input type="checkbox"/> No (GO TO B11)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| B.9                                    | What is the ownership of the other facility where you work?<br><br>1 <input type="checkbox"/> Government of Malawi<br><div style="margin-left: 40px;">Specify government department or ministry</div> <div style="margin-left: 40px;">1=MoH <input type="checkbox"/> 2= Local Government <input type="checkbox"/> 3=Military <input type="checkbox"/> 4=Police <input type="checkbox"/> 5=Forestry <input type="checkbox"/>.</div> <div style="margin-left: 40px;">6=MoE <input type="checkbox"/> Other <input type="checkbox"/> please specify _____)</div> 2 <input type="checkbox"/> <input type="checkbox"/> CHAM<br>3 <input type="checkbox"/> <input type="checkbox"/> NGO: (please specify) _____<br>4 <input type="checkbox"/> <input type="checkbox"/> Private for Profit: (please specify) _____<br>5 <input type="checkbox"/> <input type="checkbox"/> Statutory Corporation (please specify) _____<br>6 <input type="checkbox"/> <input type="checkbox"/> Other: (please specify) _____ |
| B.10                                   | How many hours/week do you work in this other facility? 1    =<10    2 <input type="checkbox"/> >10-20    3 <input type="checkbox"/> >20-30    4<br>>30-40    5 <input type="checkbox"/> >40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| B.11                                   | Do you work in another non-health related institution apart from this facility? <input type="checkbox"/> Yes <input type="checkbox"/> No (Go to B13)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| B.12                                   | How many hours/ week do you work in this other institution? 1    =<10    2 <input type="checkbox"/> >10-20    3 <input type="checkbox"/> >20-30    4<br>>30-40    5 <input type="checkbox"/> >40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| B.13)                                  | <u>ASK NURSES ONLY</u> : Do you have midwifery skills?    1 <input type="checkbox"/> Yes    2 <input type="checkbox"/> No<br>If yes, when and where they were acquired: _____<br>_____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| B.14                                   | Date of First Appointment in the Health Sector<br><div style="text-align: center;">(DD/MM/YYYY)</div> <div style="display: flex; justify-content: center; align-items: center;"> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 5px;"></div> </div>                                                                                     |
| B.15                                   | Name the facility and location of your first appointment in the health sector?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

B.16 Ownership of facility of first appointment (You may ✓ tick in more than one box wherever applicable)

1 ☐ Government of Malawi

Specify government department or ministry

1=MoH ☐ 2= Local Government ☐ 3=Military ☐ 4=Police ☐ 5=Forestry ☐  
6=MoE ☐ Other ☐ please specify \_\_\_\_\_)

2 ☐ ☐ CHAM

3 ☐ ☐ NGO: (please specify) \_\_\_\_\_

4 ☐ ☐ Private for Profit: (please specify) \_\_\_\_\_

5 ☐ ☐ Statutory Corporation (please specify) \_\_\_\_\_

6 ☐ ☐ Other: (please specify) \_\_\_\_\_

B.17 Have you ever changed your employment to work for another institution providing health services?

1 ☐ ☐ Yes 2 ☐ ☐ No [GO TO B.20]

B.18 When did you first change your job?

(DD/MM/YYYY)

|  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |
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B.19 Which employer (providing health services) did you join?

(You may ✓ tick in more than one box wherever applicable)

1 ☐ Government of Malawi

Specify government department or ministry

1=MoH ☐ 2= Local Government ☐ 3=Military ☐ 4=Police ☐ 5=Forestry ☐ 6=MoE ☐ Other ☐ please specify \_\_\_\_\_)

2 ☐ ☐ CHAM

3 ☐ ☐ NGO: (please specify) \_\_\_\_\_

4 ☐ ☐ Private for Profit: (please specify) \_\_\_\_\_

5 ☐ ☐ Statutory Corporation (please specify) \_\_\_\_\_

6 ☐ ☐ Other: (please specify) \_\_\_\_\_

B.20 Have you ever changed your employment to work for another institution NOT providing health services?

1 ☐ ☐ Yes 2 ☐ ☐ No [GO TO B.22]

B.21 When did you change your job?

(DD/MM/YYYY)

|  |  |  |  |  |  |  |  |
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ASK ONLY THOSE THAT HAVE EVER CHANGED JOBS

B.22 How many times have you changed jobs since you first joined the health sector?

1 ☐ Once 2 ☐ Twice 3 ☐ Thrice 4 ☐ Four times 5 ☐ Five times 6 ☐ Six times  
7 ☐ Seven times 8 ☐ Eight times 9 ☐ Nine times 10 ☐ Ten times 11 ☐ Eleven or more times

ASK ONLY THOSE NOT WORKING IN GOVERNMENT

B.23 Are you seconded from government to work in this facility/institution?

1 ☐ ☐ Yes 2 ☐ ☐ No [GO TO B.25]

B.24 Since when have you been seconded?

☐ Within last 6 months ☐ >6months-1 year ☐ >1-3 yrs ☐ >3-5 yrs ☐ >5 -10yrs ☐ >10-20yrs ☐ 21 yrs and

more

B.25 Current Grade and Salary of Post

i) Grade – *Indicate whether old grade or new grade:*

Old grade ☐, please specify \_\_\_\_\_

New grade ☐, please specify \_\_\_\_\_

Not applicable ☐

ii) Monthly Salary/Income: [Basic salary]: MK \_\_\_\_\_

[all allowances]: MK \_\_\_\_\_

Total monthly salary/income: MK \_\_\_\_\_

Does not know exactly ☐ No response ☐

iii) Source of Salary (Tick all applicable):

1 ☐ Government of Malawi

Specify government department or ministry

1=MoH ☐ 2= Local Government ☐ 3=Military ☐ 4=Police ☐ 5=Forestry ☐ 6=MoE ☐ Other ☐ please

specify \_\_\_\_\_)

2 ☐ CHAM

3 ☐ NGO: (please specify) \_\_\_\_\_

4 ☐ Private for Profit: (please specify) \_\_\_\_\_

5 ☐ Statutory Corporation (please specify) \_\_\_\_\_

6 ☐ Other: (please specify) \_\_\_\_\_

B.26 Status of Employment

i) 1. ☐ Permanent 2. ☐ Temporary (or month-to-month) 3. ☐ Fixed contract  
4. ☐ Probation 5. ☐ Self-employed

ii) 1. ☐ Part-time 2. ☐ Full-time

iii) Confirmed in service? ☐ Yes ☐ No ☐ Don't know

iv) If No, why? 1 Still serving probation; 2 My bosses don't like me; Other specify

B.27 How long have you worked in the Health Sector?

☐ < 6 months ☐ >=6months-1 year ☐ >1-3 yrs ☐ >3-5 yrs  
☐ >5 -10yrs ☐ >10-20yrs ☐ >20 -30yrs ☐ >30yrs

Part C: Education & Professional Training

C.1 Educational Background

i) Highest Level of Education Achieved

1 ☐ Primary School Leaving Certificate (PSLC) Year obtained: \_\_\_\_\_

2 ☐ Junior Certificate (JC) Year obtained: \_\_\_\_\_

3 ☐ Malawi School Certificate of Education (MSCE) Year obtained: \_\_\_\_\_

4 ☐ Post secondary Certificate Year obtained: \_\_\_\_\_

5 ☐ Diploma (from a recognized university) Year obtained: \_\_\_\_\_

6 ☐ Diploma (Other institutions) Year obtained: \_\_\_\_\_

7 ☐ Bachelors Degree Year obtained: \_\_\_\_\_

8 ☐ Masters Degree Year obtained: \_\_\_\_\_

9 ☐ Doctorate Year obtained: \_\_\_\_\_

10 ☐ Other, please specify: ..... Year obtained: \_\_\_\_\_

ii) Highest/Latest Professional Training received

Title of Degree/Long-term Course: \_\_\_\_\_ Name of Institution: \_\_\_\_\_

Year obtained: \_\_\_\_\_

iii) Statutory Professional Registration & Licensing in Malawi

a. Have you ever been registered with any health professional body in Malawi relevant to your work in this facility?  
☐ Yes ☐ No GO TO C.2

If yes,

Name of Licensing Body: 1 = Medical Council of Malawi; 2=Nurses & Midwives Council of Malawi; 3= Poisons and Pharmaceutical Drugs Board; Other specify \_\_\_\_\_

Date of Registration: \_\_\_\_\_ Registration Number: \_\_\_\_\_

b. Are you currently registered / licensed with any health professional body in Malawi?

☐ Yes ☐ No

C.2 In-service Training

i) Number of short-term in-service training courses and/or programmes have you completed in the past one (1) year

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

☐ More than 5 (please state exact number): .....

If 0, reasons why did not attend any in-service training?

☐ Work overload

☐ Not considered by superiors/higher authorities

☐ Budgetary constraints

☐ Not interested in further training

☐ other, specify \_\_\_\_\_

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Part D: Promotion History</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <p>D. Promotion</p> <p>D.1 Have you ever been promoted in your job?    <input type="checkbox"/> Yes   <input type="checkbox"/> No</p> <p>D.2 When were you last promoted (Indicate month and year) _____ Month _____ Year</p> <p style="padding-left: 40px;">Promoted from position _____ to position _____</p> <p>If never promoted, why? _____</p> <p style="text-align: right;"><input type="checkbox"/> Don't know   <input type="checkbox"/> No response</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Part E: Housing Conditions, transport and other amenities</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <p>E 1. Where is your residence located?</p> <p style="padding-left: 40px;">i) City/Town/Village:..... ii)    1=Urban                      2=Rural                      3=Semi-Urban</p> <p style="padding-left: 40px;">iii) District: .....</p> <p>E 2. Ownership of residence?</p> <p>1. <input type="checkbox"/> Staff Quarters   2. <input type="checkbox"/> Own House   3. <input type="checkbox"/> Relative's/Friend's House   4. <input type="checkbox"/> Rented House   5. <input type="checkbox"/> Other, specify _____</p> <p>E 3. Does the house that you stay in have electricity? <span style="float: right;"><input type="checkbox"/> Yes   <input type="checkbox"/> No</span></p> <p>E 4. Does the house that you stay in have running water inside? <span style="float: right;"><input type="checkbox"/> Yes   <input type="checkbox"/> No</span></p> <p>E 5. How far is your house from the nearest tarmac/all weather road? <span style="float: right;">_____ km</span></p> <p>E 6. How far is your house from the nearest primary school? <span style="float: right;">_____ km</span></p> <p>E 7. How far is your house from the nearest shopping centre? <span style="float: right;">_____ km</span></p> <p>E 8. How far is your house from your place of work? <span style="float: right;">_____ km</span></p> <p>E 9. How do you get to work? (Tick all applicable):</p> <p style="padding-left: 40px;">1. <input type="checkbox"/> Private vehicle   2. <input type="checkbox"/> Public transportation</p> <p style="padding-left: 40px;">3. <input type="checkbox"/> Taxicab                      4. <input type="checkbox"/> Ambulance or emergency vehicle</p> <p style="padding-left: 40px;">5. <input type="checkbox"/> Bicycle                      6. <input type="checkbox"/> Walk</p> <p style="padding-left: 40px;">5. <input type="checkbox"/> Other, specify _____</p> <p>E 10. About how long does it take for you to get to work? (Hours, Minutes) <span style="float: right;"> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> </span></p> <p style="text-align: right;">98 <input type="checkbox"/> Don't know   99 <input type="checkbox"/> No response</p> |
| <b>Part F: Section Specific to CHAM/NGO/Private for Profit Employees</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <p>F1. Have you ever worked in a government health facility before?   <input type="checkbox"/> Yes   <input type="checkbox"/> No</p> <p>F 2. For how long did you work in the government service?</p> <p style="padding-left: 40px;"><input type="checkbox"/> &lt; 6 months   <input type="checkbox"/> &gt;6months-1 year   <input type="checkbox"/> &gt;1-3 yrs   <input type="checkbox"/> 4-5 yrs</p> <p style="padding-left: 40px;"><input type="checkbox"/> 6 -10yrs   <input type="checkbox"/> 11-20yrs   <input type="checkbox"/> 21 -30yrs   <input type="checkbox"/> &gt;30yrs</p> <p>F 3. When did you stop working in the government? (Year) <span style="float: right;"> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> </span></p> <p>F 4. Why did you leave government? (Enter code or specify)</p> <p>1 <input type="checkbox"/> Low pay   2 <input type="checkbox"/> Poor working conditions   3 <input type="checkbox"/> Poor motivation   4 <input type="checkbox"/> Lack of incentives   5 <input type="checkbox"/> No recognition</p> <p>6 <input type="checkbox"/> Desire for more challenging work elsewhere   7 <input type="checkbox"/> Need for new working environment   8 <input type="checkbox"/> Retired</p> <p>9 <input type="checkbox"/> removed from service   10 <input type="checkbox"/> Other, specify _____</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

Annex 8: Potential Indicators that may be derived from HRH Census in Malawi

| 1. AVAILABILITY                                                                                        | 2. PROFILES                                                                                                                                                                                                                                                                                                | 3. DISTRIBUTION                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Skill mix (cadre)<br>- <u>number</u> of different health cadres (i.e. doctors, nurses, assistants etc) | Educational attainment<br>- % with basic education vs higher education ( <i>degrees attained</i> )<br>- % with specialist education vs non specialist education<br>- % educated at national vs international level ( <i>i.e. educated in-country, in-Africa, outside of Africa – per degree obtained</i> ) | Geographical distribution<br>- % distributed per district<br>- % distributed per Zone (5 zones)<br>- % distributed per region (3 regions)<br>- % <u>urban vs rural</u> vs. semi-urban |
| Ratios<br>population/provider,<br>provider/provider (e.g.: nurse/doctor)                               | Age structure<br>- % young vs old ( <i>based on date of birth</i> )                                                                                                                                                                                                                                        | Health facility ownership<br>- percentage distribution by sector (public- Govt. and CHAM, quasi-public, private for profit, private not for profit)                                   |
|                                                                                                        | Sex<br>- % <u>female</u> vs male                                                                                                                                                                                                                                                                           | Health facility type<br>- percentage working in one type of facility vs another ( <i>hospital, health center, health post etc</i> )                                                   |
|                                                                                                        | Migration status<br>- % of foreign-born AND % of foreign-trained health workers in the total health workforce                                                                                                                                                                                              | Level of Care<br>- percentage working in primary vs. secondary vs. tertiary                                                                                                           |
|                                                                                                        | Professional experience<br>- % with limited professional experience (years) vs vast experience ( <i>as per the time periods provided in the questionnaire</i> )                                                                                                                                            | Occupation<br>- % of different specialists, when applicable, for e.g. in the case of doctors, clinical officers and nurses                                                            |
|                                                                                                        | Employee “ownership”<br>- % whose salary paid by private vs public sector                                                                                                                                                                                                                                  | Type of activity<br>- % engaged in clinical (patient care), preventive, administrative, teaching, etc                                                                                 |
|                                                                                                        | Employee work hours<br>- % full time workers vs part time workers ( <i>determined by hours worked a week</i> )                                                                                                                                                                                             |                                                                                                                                                                                       |
|                                                                                                        | Registration status<br>- % of different categories who are registered with the respective professional bodies                                                                                                                                                                                              |                                                                                                                                                                                       |
|                                                                                                        | Educational status<br>- % of health workers with tertiary-level educational attainment among the total health workforce                                                                                                                                                                                    |                                                                                                                                                                                       |
|                                                                                                        | In-service training status<br>- % of different categories who have attended at least one course during the year vs. none                                                                                                                                                                                   |                                                                                                                                                                                       |
|                                                                                                        | Promotion status<br>- % of different categories who have been promoted at least once during their entire service vs. none                                                                                                                                                                                  |                                                                                                                                                                                       |
|                                                                                                        | Deployment/transfer status<br>- % of different categories who have remained at their duty station for more than last 5 years vs. those who have been at their duty station for less than last 5 years                                                                                                      |                                                                                                                                                                                       |
|                                                                                                        | Income/salary<br>- Average monthly income, occupational earnings or hourly wages among health workers                                                                                                                                                                                                      |                                                                                                                                                                                       |

|  |                                                                                                              |  |
|--|--------------------------------------------------------------------------------------------------------------|--|
|  | - Comparisons in average income/salary between Public, Private for profit and Private not for profit sectors |  |
|--|--------------------------------------------------------------------------------------------------------------|--|

### Computation of some key Indicators

| #                                         | INDICATOR            | DESCRIPTION                                                                                                                                                                               | NUMERATOR                                                                                                                             | DENOMINATOR                                                                                                                                             | DISAGGREGATION                 |
|-------------------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <i>Health services provision function</i> |                      |                                                                                                                                                                                           |                                                                                                                                       |                                                                                                                                                         |                                |
| 1                                         | Stock of HRH         | Proportion of HRH among the total population                                                                                                                                              | Number of health workers                                                                                                              | Total mid-year population                                                                                                                               | Region, zone, district         |
|                                           |                      |                                                                                                                                                                                           | Number of health workers of economically active age                                                                                   | Total mid-year population of economically active age                                                                                                    | Region, zone, district         |
|                                           |                      | Doctor/population ratio                                                                                                                                                                   | Estimated mid-year population                                                                                                         | Number of doctors (including government, CHAM, BLM and all registered private facilities) enumerated                                                    | Region, zone, district         |
|                                           |                      | Nurse/population ratio                                                                                                                                                                    | Estimated mid-year population                                                                                                         | Number of nurses (including nurse-midwives and midwives) (including government, CHAM, BLM and all registered private facilities) enumerated             | Region, zone, district         |
|                                           |                      | Health workforce (Doctors/Nurses/Midwives) ratio                                                                                                                                          | Estimated mid-year population                                                                                                         | Number of doctors and nurses (including nurse-midwives and midwives) (including government, CHAM, BLM and all registered private facilities) enumerated | Region, zone, district, gender |
|                                           |                      | HSA population ratio                                                                                                                                                                      | Estimated mid-year population                                                                                                         | Number of HSAs enumerated                                                                                                                               | Region, zone, district         |
| 2                                         | Skills mix           | Distribution of health workers with a given occupation, specialization or other skill-related characteristic among the total health workforce (and compared to other category of workers) | Number of health professionals                                                                                                        | Total number of health sector workers                                                                                                                   | Region, zone, district         |
|                                           |                      |                                                                                                                                                                                           | Number of doctors                                                                                                                     | Number of nurses and midwives                                                                                                                           | Region, zone, district         |
|                                           |                      |                                                                                                                                                                                           | Number of medical specialists                                                                                                         | Number of medical generalists                                                                                                                           | Region, zone, district         |
|                                           |                      | % of health centres with minimum staff norms                                                                                                                                              | No. of HCs with 2 Clinicians (Doctor/Clinical Officer/ Medical Asst.), 2 Nurse/ Midwives and 1 Env. Health Officer/ Health Assistant: | No. of HCs in the district                                                                                                                              | Region, zone, district         |
| 3                                         | Migration status     | Proportion of foreign-born or foreign-trained health workers in the total health workforce                                                                                                | Number of health workers who were born in a foreign country                                                                           | Total number of health workers                                                                                                                          | Region, zone, district         |
|                                           |                      |                                                                                                                                                                                           | Number of health workers who received their academic training in a foreign country                                                    | Total number of health workers                                                                                                                          | Region, zone, district         |
| 4                                         | Institutional sector | Proportion of health workers engaged in the public sector                                                                                                                                 | Number of health workers employed in the public sector                                                                                | Total number of health workers                                                                                                                          | Region, zone, district         |
|                                           |                      | Proportion of health workers engaged in the private for profit sector                                                                                                                     | Number of health workers employed in the private for profit sector                                                                    | Total number of health workers                                                                                                                          | Region, zone, district         |

|                                     |                                                  |                                                                                                                                               |                                                                                                           |                                                                                                                                           |                        |
|-------------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
|                                     |                                                  | Proportion of health workers engaged in the private not for profit sector                                                                     | Number of health workers employed in the private not for profit sector                                    | Total number of health workers                                                                                                            | Region, zone, district |
| 5                                   | Income / earnings                                | Relative income/earnings among health workers                                                                                                 | Average annual income, occupational earnings or hourly wages among health workers in the public sector    | Average annual income, occupational earnings or hourly wages among all workers in the private sector (both for profit and not for profit) | Region, zone           |
| 6                                   | Distribution of HRH by location / gender / other | Proportion of health workers working in urban areas, being female, or having another specific characteristic among the total health workforce | Number of health workers working in urban areas                                                           | Total number of health workers                                                                                                            | Region, zone, district |
|                                     |                                                  |                                                                                                                                               | Number of health workers who are female                                                                   | Total number of health workers                                                                                                            | Region, zone, district |
| 7                                   | Gender gap in income / earnings                  | Ratio of women's to men's income/ earnings in the health workforce                                                                            | Average annual income, occupational earnings or hourly wages among female health workers                  | Average annual income, occupational earnings or hourly wages among male health workers                                                    | Region, zone, district |
| <i>Resource generation function</i> |                                                  |                                                                                                                                               |                                                                                                           |                                                                                                                                           |                        |
| 8                                   | Renewal and loss of HRH                          | Ratio of new arrivals to the health workforce                                                                                                 | Number of health workers aged 30 years or less                                                            | Total number of health workers                                                                                                            | Region, zone, district |
| 9                                   | Education and training                           | Proportion of health workers with tertiary-level educational attainment among the total health workforce                                      | Number of health workers with tertiary-level educational attainment (or other level)                      | Total number of health workers                                                                                                            | Region, zone, district |
|                                     |                                                  | Proportion of health workers having undertaken continuous education program within a given period of time among the total health workforce    | Number of health workers having undertaken at least one continuous education program in the last one year | Total number of health workers                                                                                                            | Region, zone, district |



*Annex 9: Census Coordinating Team and Execution Team*

**Census Coordinating Team – Ministry of Health**

| <b>Name</b> | <b>Position in Ministry</b> | <b>Role in Census</b> |
|-------------|-----------------------------|-----------------------|
|             |                             |                       |
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**Census Execution Team - Centre for Social Research**

| <b>Name</b>           | <b>Position in CSR</b>                       | <b>Role in Census</b> |
|-----------------------|----------------------------------------------|-----------------------|
| John Kadzandira       | Deputy Director & Research Fellow            | Team Leader           |
| Sidon Konyani         | Research Fellow                              | Co-Leader             |
| Charles Chunga        | Assistant Director, Finance & Administration | Co-leader             |
| Alistar Munthali      | Senior Research Fellow                       | Co-Leader             |
| Charles Chilimampungu | Director                                     | Co-Leader             |
| Massy Chiocha         | Data Analyst                                 | Data Management       |