

ORIGINAL ARTICLE

Exploring Barriers and Enablers of Medical Licentiate Practice in Zambia: A Qualitative Study

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ABSTRACT

Background: The introduction of Medical Licentiates (MLs) into the Zambian health system has significantly improved the availability of health services in rural areas. Despite their importance in the delivery of health services, MLs face challenges. Limited literature exists on the barriers and enablers to ML practice in Zambia. This study aimed to investigate these factors.

Methods: A qualitative case study design was used. Eighteen in-depth interviews were conducted with purposively selected MLs. Data were analysed thematically using a primarily deductive (top-down) coding approach, guided by a pre-developed coding scheme based on prior literature and programme experience. Additional codes were allowed to emerge inductively during analysis. Coding followed Tesch's eight-step method, and three main themes were identified: working conditions, career development, and professional fulfilment.

Results: The study identified several barriers to ML practice, including inadequate remuneration, lack of

professional recognition, strained working relationships with medical doctors and unregulated scopes of practice that blur the distinctions between the roles of MLs and medical doctors. Medical Licentiates felt they were on an inappropriate salary scale, unsuitable for holders of Bachelor of Science degrees with no clear pathway for academic advancement. The working relationships between MLs and medical doctors were mixed, with some MLs reporting acceptable interactions, while others experienced conflict. Enablers of ML practice were linked to professional fulfilment derived from exercising their full competencies and contributing to the recovery of patients.

Conclusion: Our study revealed significant barriers with few enablers to ML practice in Zambia. MLs are deeply demotivated by what they perceive as an inappropriate salary scale, exacerbated by an unregulated scope of work that sees them perform similar roles to those of medical doctors. Our results indicate a pressing need for the government to ensure that MLs are placed on a salary scale that appropriately reflects their qualifications and scope

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of work.

INTRODUCTION

The shortage of skilled health professionals remains a global challenge. In 2020, the global health workforce shortage was estimated at 15.4 million.¹ This shortage has adversely affected the delivery of health services worldwide.² In Sub-Saharan Africa, the situation is compounded by inequitable health personnel distribution that favours urban populations.³ In Zambia the majority of the population resides in rural areas,⁴ resulting in a clinician-to-population ratio of 7 to 10,000.⁵ Other studies have shown that the distribution of health workers in many countries continues to be biased towards urban areas.^{6, 7, 8} The World Health Organization (WHO) recommends task shifting or task sharing that utilizes non-physician clinicians (NPCs) to address health worker shortages.⁹ Low training costs, shorter training durations, and relatively higher rural retention rates make NPCs an attractive solution to health worker shortages.¹⁰ Several countries implement task sharing to improve access to health services with reported success.^{11,12}

To mitigate health worker shortages, the Zambian Ministry of Health (MoH) introduced a cadre of NPCs known as MLs in 2002. Since its inception, the ML programme has been supported by several international initiatives. The Swiss INGO, SolidarMed, contributed to pedagogical design, clinical teaching, implementation support, and training infrastructure development between 2010 and 2021. Clinical Officer surgical training in Africa (COST-Africa) (2011-2016) and the follow-up programme Scaling up surgery for district and rural populations in Africa (SURG-Africa) (2017-2020) significantly supported in-service surgical training, developed supervision models, and national-level evaluations to strengthen rural surgical systems.

MLs have demonstrated proficiency in performing clinical and surgical tasks. They can carry out major surgical procedures, including caesarean sections,

hydrocelectomies, and laparotomies.¹³ Their introduction has improved the availability of health services in rural areas, bringing essential medical care closer to home for many citizens.¹⁴ Unfortunately, MLs face several challenges, including limited career progression and low professional recognition.¹² Gajewski *et al.*¹⁴ qualitatively evaluated the role of MLs in Zambia, highlighting their contributions to surgical care in underserved rural areas and their positive impact on healthcare access and referral reduction. The study also identified challenges such as limited professional recognition and a lack of career paths. However, the study did not explore MLs' perspectives on professional fulfilment, job satisfaction, or the specific factors influencing their motivation and retention, nor did it examine a broader range of factors influencing ML practice beyond their surgical role.

While task sharing with MLs has shown promise in improving healthcare access in rural Zambia, previous research has not fully explored the range of factors influencing MLs' job satisfaction, retention, and overall professional experience. There is scarcity of literature on barriers and enablers to MLs practice in Zambia. This study aimed to address this gap by investigating the enablers and barriers to ML practice in Zambia, describe the role of MLs in the delivery of health services and establish factors leading to attrition among MLs. We anticipate that our findings will inform strategies to optimize the contributions of MLs to the healthcare system in Zambia.

METHODS

The study is reported according to the consolidated criteria for reporting qualitative research (COREQ) (see appendix 1).

Study design and setting

We conducted a qualitative study using a case study design to understand experiences, particularly those acting as enablers or barriers to ML clinical practice.

Participants and Recruitment

The selection of participants was based on willingness and ability to take part in the study. MLs in the employment of the government, the private sector, non-governmental organizations (NGOs) and other institutions were purposefully selected. Retired MLs were excluded. Contact details for participants were obtained from ML databases provided by Chainama College of Health Sciences and the Levy Mwanawasa Medical University (LMMU).

As part of the informed consent process, one of the researchers (EMM) contacted each participant by phone to explain the purpose of the study. Participants who provided verbal consent received the following documents via email: information sheet (annex 2), consent form (annex 3) and compensation letter (annex 4). With permission from the participants, each interview was audio recorded. The interviews were conducted by two researchers (EMM and MC) from 15th February to 22nd April 2022.

With regards to sample size, it was determined a priori that a minimum of 12 interviews would be conducted, as guided by Guest *et al.*,¹⁵ for a study focusing on a homogenous population.

Data collection and analysis

For data collection, a semi-structured, in-depth interview guide was developed by researchers from SolidarMed, the Royal College of Surgeons in Ireland (RCSI), and the Heidelberg Institute for Global Health (HIGH). The researchers drew upon their extensive experience gained through numerous interactions with MLs in various projects. To ensure content validity, the interview guide was pilot-tested, and minor adjustments were subsequently incorporated into a final version (Appendix 2). Phone-based interviews were chosen as the preferred method for data collection, facilitating communication with participants in remote areas without need of physical travel and minimizing logistical challenges. All interviews

were audio-recorded and transcribed verbatim using Microsoft Word.

The interviews were conducted by two researchers with experience in qualitative research. Data were analysed using thematic analysis. Three researchers (PA, MC and EMM) who have post graduate training jointly designed a data coding frame using a 'top-down' method of theme identification. The data was initially coded using a pre-developed coding scheme, with additional codes emerging as the analysis progressed.

Coding was conducted manually and inductively, following Tesch (1990)'s 8-step guide. Themes were then developed by grouping similar codes, and these were discussed with the broader research team to reach a consensus on the most relevant themes. The final structure of themes and subthemes was established and visualised in a coding tree using the online platform Miro. Illustrative phrases from individual participants supported the findings for each theme.

Ethical considerations

Ethical clearance for the study was granted by the Levy Mwanawasa Medical University Research Ethics Committee (LMMUREC) (references: LMMU-REC 00006/21) while the National Health Research Authority granted authority to conduct the study. (NHRA00004/03/02/2022). Anonymity of all participants was maintained with each interview being assigned a unique identification number in place of the participant's name. All the data obtained from the interviews were stored on password-protected laptops that could only be accessed by the researchers.

RESULTS

A total of 18 MLs were successfully recruited and enrolled in the study. The participants' ages ranged from 36 to 56 years. The sample comprised 11 males and seven females. Most participants worked in environments that allowed them to perform clinical and surgical work. Others were lecturing, doing

administrative work or working in HIV vertical programmes. The analysis of barriers and enablers to ML practice in Zambia identified three major themes: (1) working conditions, (2) career development and (3) professional fulfilment.

Working conditions

This theme was divided into two subthemes: 1) institutional factors and 2) working relationships between MLs and medical doctors.

Institutional factors were further organised into the following subthemes: 1) remuneration, 2) professional recognition, and 3) scope of work.

Institutional factors

Regarding the subtheme remuneration, particularly those employed by the government, MLs expressed disappointment with their salaries. These MLs reported that despite performing similar tasks to medical doctors, their salaries were much lower.

It is very inadequate because if you compare with the people [doctors], we do the same work with you find that their salaries are twice more than our salaries, but we do most of the work. Participant #6

In addition, some MLs felt that their remuneration was not commensurate with the number of working hours. According to these participants, MLs must perform on-call duties, which previously included an on-call allowance. However, this allowance or any compensation for on-call responsibilities is no longer provided.

The input is not equivalent to the remuneration in the sense that I do what we call on-call this is after the normal working period, now you do calls which are not paid for. Participant #9

MLs also felt unfairly treated by their employers because the remuneration was not aligned with their level of education, even though most MLs had upgraded their qualifications to Bachelor of Science Degrees. According to them, the government

remuneration system attracts higher salaries for Degree holders than the ones currently on offer.

Most of us have degrees and we are supposed to be placed in division one but that hasn't been done. So, I am contemplating to go and study medicine if not then I will divert and study Public Health. Participant #12

With regards to the subtheme of *professional recognition*, the provision of institutional housing and placement on the correct salary scale were considered significant. One ML expressed satisfaction with the district health office, which had provided institutional accommodation.

In addition, the Provincial Health Office had established an ML position at the health facility, ensuring that the ML was placed on the correct salary scale. Conversely, other MLs felt professionally unrecognised, as institutional housing was reserved exclusively for medical doctors, leading to discontent and frustration.

PHO (Provincial Health Office) redirected me to another health facility because of the need that was there for an ML. I was even put on a salary for a medical licentiate which was a motivation for me. Participant #11

If you are a Medical Licentiate, they put you anywhere and if you are a medical doctor doing intern they will put you in a big house, whereas for us they put you anywhere there's a place. Participant #15

Regarding the subtheme of *scope of work*, some MLs felt that the lack of a clear distinction between the roles of MLs and medical doctors was a source of conflict. The overlapping responsibilities between the two cadres led MLs to question the significant disparity in remuneration, which they perceived as unjustified.

In environments where there was a clear distinction between the work of MLs and medical doctors, an

arrangement that created a favourable working environment between the two cadres.

I think the distinction of the work, the distinction is almost non-existent; where does ML end, and where does an MD (Medical Doctor) end? It (distinction) can help prevent friction. Participant #6

Working relationships with medical doctors

Working or professional relationships between medical doctors and MLs were described as variable. While some MLs reported being satisfied with their professional relationships with doctors, others experienced less satisfactory interactions. One ML felt that doctors were threatened by the level of skills demonstrated by MLs, while others thought that doctors did not adequately recognise MLs.

They (doctors) don't even recognize us. They will say if there is something happening at the facility they will say I am alone at the facility forgetting that they are getting help from us. Participant #7

Another cause of tension between the two cadres was the Ministry of Health's perceived preferential treatment of medical doctors. MLs noted instances where less experienced doctors were promoted to Head of Clinical Care positions, despite the presence of MLs with greater work experience; additionally, facility-in-charges frequently prioritised medical doctors over MLs for opportunities to attend training courses and workshops.

So, there was a bit of tension and also when it came to opportunities of trainings and workshops. It was always that cadre (MDs) going and not this other cadre (MLs). Participant #11

Career development

Lack of training opportunities

MLs reported encountering barriers to advancing academically. Three MLs felt that, given their

considerable work experience, they should be granted exemptions when enrolling in medicine schools (limited undergraduate/postgraduate opportunities).

Additionally, some MLs expressed concern about the lack of opportunities for specialisation within their profession. Despite practising across several disciplines, including surgery, obstetrics and paediatrics, MLs are unable to pursue specialisation in any of these fields (barriers to specialisation within ML profession)

There are a lot of limitations in what we do like now I can say in the last four years I have been placed in obstetrics and gynaecology where I have that passion but for me to take that pathway to further my studies, I cannot do it I cannot become an Obstetrician despite being good at it. Participant #1

These barriers have led some MLs to pursue programmes not aligned with their profession, a situation many feel they have been forced into. More accessible alternatives include pursuing a master's degree in public health, pursuing a teaching career, or working in the NGO sector, none of which are directly related to the ML profession (forced to pursue unrelated career paths)

I am planning to join an NGO (sic) if I don't go back to school then I will join the NGOs (sic). At least there it is better. I may not work in the government. Participant #6

Job promotions

Some MLs were concerned about the lack of a clear career pathway. They noted that promotions only occurred when it was convenient to the health facility, i.e., in the absence of medical doctors to fill vacancies, and these promotions were typically limited to administrative roles (subtheme *promotions of convenience*).

MLs would like to see structured career pathways like those in other professions, e.g., nursing, pharmacy and medicine, which offer progression to district, provincial and national levels. The MLs felt that an ML employed today would remain an ML, stationed at a health facility, with no hope of promotion until retirement.

But for us when the promotion comes in mostly its administrative promotion so we would also need promotions that come because of career in the same line. Participant #9

We want to be on the ward every day, but we should be upgrading like the way it is with other careers like doctors, junior doctors, there senior resident doctors, you become a Registrar and a Consultant it motivates like you know you are getting promoted like that because you are going to school and the like. Participant #3

Professional fulfilment

Professional fulfilment was organised into the following subthemes: 1) application of skills and 2) positive feedback from patients and communities.

Application of skills

Some of the MLs in clinical practice reported feeling professionally fulfilled, mainly when they worked in environments that allowed them to utilise their competencies fully. Evidently, being placed at health facilities where MLs applied their surgical skills contributed to job satisfaction. In addition, some MLs derived professional satisfaction from seeing patients recover because of the services provided. It was also noted that MLs who had transitioned to non-governmental organisations missed clinical practice, despite receiving better remuneration, underscoring the intrinsic importance of clinical practice.

So, saving lives, mothers, babies ok in general, the surgical aspect that motivates me because we can handle most of the emergencies when they come to the

hospital without referring yes. Participant #3

Positive feedback

MLs in practice were also motivated by the positive feedback they received from patients and the communities they serve. According to some participants, patients expressed appreciation for the treatment provided by MLs, and this appreciation often resonated throughout communities.

Right now, what motivates me is the appreciation from the community as to how I carry out my work and the complex operations that I have done . Participant #13

DISCUSSION

This study highlights the complex interplay of factors influencing the practice of MLs in Zambia. While MLs derive professional fulfilment from applying their skills and serving their communities, they face remuneration, recognition, support, scope of work, and career progression challenges. These challenges directly impact their job satisfaction, motivation, and, ultimately, retention within the healthcare workforce.

The findings are particularly relevant considering recent developments. The Zambian government initiated mass employment of essential health workers, excluding MLs. The absence of MLs from this initiative is concerning and casts doubts on the profession's future within the government's health sector.

Barriers to the medical licentiate profession

Working conditions

One of the major barriers to ML practice is inadequate remuneration. While several studies, including one conducted in Zambia, have demonstrated that financial incentives alone are not sufficient to motivate health workers to remain in service,^{16, 17, 18} the case of MLs is further complicated by a perceived inequity in pay. Precisely, MLs are

placed on a salary scale designated for diploma holders, despite holding bachelor's degrees, a finding consistent with previous research.¹⁴

This perceived discrepancy is a strong demotivating factor, potentially leading to reduced work output and increased attrition.¹⁹ A Kenyan study found that health workers were severely demotivated when on-call duties were not compensated.²⁰ However, it is worth noting that some neighbouring countries, such as Tanzania, continue to provide -call allowances to their health workers.²¹

Work relationships between MLs and medical doctors vary and are often subjective. Frictions between the two cadres continue, often stemming from a lack of awareness about the ML role and, in some cases, perceived competition, findings echoed by Gajewski *et al.*¹⁴ A study in the United Kingdom on physician assistants (NPCs) found that doctors often lacked an understanding of the role of this cadre and viewed the NPCs as a supervisory burden.²²

A systematic review found that mutual respect among health workers positively influences retention, performance, and the quality of care.²³ It is therefore urgent to improve working relationships between health cadres, possibly by improving existing regulatory frameworks on task shifting with NPCs, as suggested by some studies.^{24,25}

Career development

The demand for health workers with postgraduate qualifications is increasing worldwide, and there is a well-established link between academic advancement and career progression.²⁶ As shown by Gajewski *et al.*, MLs in Zambia face significant obstacles in terms of career development and progression, and our findings indicated that these challenges persist. Without opportunities for specialization, MLs are unable to advance academically within their chosen profession, making promotions almost unattainable.

The importance of career development as a key motivator for health workers has been highlighted in

several studies, with one systematic review ranking career development alongside financial incentives as a significant motivator for health workers.²⁷ In South Africa, a study found that career progression motivated medical doctors to continue practising in rural hospitals.²⁸

Another study conducted in Ghana demonstrated that delaying promotion impedes career development and is a source of demotivation among nurses.²⁹ Similarly, in Malawi, clinical officers expressed a strong desire to leave government-run hospitals due to inadequate opportunities for continuous education and career progression.³⁰

The lack of career pathways for MLs, previously reported by Gajewski *et al.*,¹⁴ remains a pressing concern according to our findings. The absence of these career pathways may partly be due to task-shifting programmes, such as the ML programme, not being designed to include specialization opportunities. While creating specialisation pathways in disciplines such as surgery may not be feasible due to MLs current qualifications, alternative options for career development could be explored.

Enablers to the ML profession

Professional fulfilment

According to this study professional fulfilment is a consistent enabler of ML practice. MLs derive professional fulfilment in environments that allow them to practice their competencies, particularly those related to surgical care. Additionally, professional fulfilment is attained when their services result in positive patient outcomes. Although often overlooked, at least one study has demonstrated that professionally fulfilled workers exhibit higher states of well-being and are more likely to thrive in the workplace.³¹

A study on quality improvement in healthcare found that professional fulfilment was essential for ensuring that health workers were involved and committed to quality improvement.³² A Norwegian study conducted at a single health facility found that

professional fulfilment was compromised when health workers were overworked or faced organisational barriers.³³ MLs may feel overworked due to the extended hours required to work without appropriate compensation.

Additionally, organisational hindrances will likely arise when MLs are restricted from practising their full range of competencies, including limitations imposed by insufficient resources, inadequate support from other healthcare professionals, or rigid institutional policies that do not fully recognise their qualifications and scope of practice.

Study limitations

Our study did not seek the views of other stakeholders implicated in determining and managing medical licentiates' conditions of service. While other stakeholders' views are important to gain a wider understanding of the obstacles relating to this profession, this study aimed to focus on the medical licentiate perspective for advocacy.

We believe that this approach provides a rich source of information that policymakers and heads of health facilities can use to ensure conditions of service for MLs. Secondly, our study relied solely on in-depth interviews, without employing data triangulation methods. However, conducting in-depth interviews was the most appropriate data collection tool, as it allowed for a wide range of perspectives.

CONCLUSION

Despite having existed for over 20 years, MLs in Zambia continue to face persistent professional barriers, including inadequate remuneration, lack of career progression, insufficient professional recognition, and the absence of clear legal frameworks guiding their scope of work. Addressing the challenges reported in this study is essential for the continued success and sustainability of the ML program in Zambia. Additionally, it ensures that this cadre of healthcare professionals can effectively contribute to improving healthcare access and delivery in underserved areas.

To enhance the impact of the ML profession, several policy and structural changes are recommended:

- 1) MLs with bachelor's degrees should be placed on the appropriate salary scale to reflect their qualifications .
- 2) The on-call allowance should be reinstated, given that MLs frequently work beyond the standard forty-hour week.
- 3) While defining distinct scopes of work between doctors and medical licentiates may seem beneficial, it could risk deteriorating health services, making it more appropriate to establish legal frameworks that guide task shifting between the two cadres.
- 4) Health facilities with available housing should provide accommodation to MLs to facilitate on-call duties and enhance their retention in practice.
- 5) For career development, the government should collaborate with educational institutions to develop postgraduate programs tailored explicitly for MLs, despite the current lack of specialisation pathways within task-shifting programs.

These recommendations align with Zambia's Human Resources for Health Strategic Plan 2018–2024,³⁴ which prioritises task-sharing and scaling up mid-level provider training, as well as with the National Surgical, Obstetric and Anaesthesia Plan (NSOAP),³⁵ which supports expanding surgical services through cadres such as MLs.

List of abbreviations

MLs – Medical Licentiates,

NPCs – Non-Physician Clinicians,

MOs – Medical Doctors,

PA – Physician Assistants.

COST-Africa - Clinical Officer surgical training in Africa

SURG-Africa - Scaling up surgery for district and rural populations in Africa

Declarations

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Consent for publication

Not applicable

Availability of data and materials

Not applicable

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Petros Andreadis: study conception, study design, verification of underlying study data, Data curation, data interpretation and analysis, supervision, project

administration and implementation, Writing – review and editing, manuscript revision support.

All authors read and approved the manuscript

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Appendix 1: Consolidated criteria for reporting qualitative studies (COREQ): 32-item checklist

No.	Item	Guide questions/description	page
Domain 1: Research team and reflexivity			
Personal Characteristics			
1.	Interviewer/facilitator	Which author/s conducted the interview or focus group?	4
2.	Credentials	What were the researcher's credentials? E.g. PhD, MD	4
3.	Occupation	What was their occupation at the time of the study?	4
4.	Gender	Was the researcher male or female?	4
5.	Experience and training	What experience or training did the researcher have?	4
Relationships with particulars			
6.	Relationship established	Was a relationship established prior to study commencement?	4
7.	Participant knowledge of the interviewer	What did the participants know about the researcher? e.g. personal goals, reasons for doing the research	4 this was explained before the interview as part of the

			informed consent process
8.	Interviewer characteristics	What characteristics were reported about the interviewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic	4
Domain 2: study design			
Theoretical framework			
9.	Methodological orientation and Theory	What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis	4
Participant selection			
10.	Sampling	How were participants selected? e.g. purposive, convenience, consecutive, snowball	4
11.	Method of approach	How were participants approached? e.g. face-to-face, telephone, mail, email	4
12.	Sample size	How many participants were in the study?	4
13.	Non-participation	How many people refused to participate or dropped out? Reasons?	4
Setting			
14.	Setting of data collection	Where was the data collected? e.g. home, clinic, workplace	4

15.	Presence of non-participants	Was anyone else present besides the participants and researchers?	4
16.	Description of sample	What are the important characteristics of the sample? e.g. demographic data, date	4
Data collection			
17.	Interview guide	Were questions, prompts, guides provided by the authors? Was it pilot tested?	4
18.	Repeat interviews	Were repeat interviews carried out? If yes, how many?	NA
19.	Audio/visual recording	Did the research use audio or visual recording to collect the data?	4
20.	Field notes	Were field notes made during and/or after the interview or focus group?	4
21.	Duration	What was the duration of the interviews or focus group?	4
22.	Data saturation	Was data saturation discussed?	4
23.	Transcripts returned	Were transcripts returned to participants for comment and/or correction?	NA, not requested
Domain 3: analysis and findings			
Data analysis			
24.	Number of data coders	How many data coders coded the data?	4
25.	Description of the	Did authors provide a description of the	

	coding tree	coding tree?	Figure
26.	Derivation of themes	Were themes identified in advance or derived from the data?	4
27.	Software	What software, if applicable, was used to manage the data?	4
28.	Participant checking	Did participants provide feedback on the findings?	4
Reporting			
29.	Quotations presented	Were participant quotations presented to illustrate the themes / findings? Was each quotation identified? e.g. participant number	6 - 8
30.	Data and findings consistent	Was there consistency between the data presented and the findings?	5 - 10
31.	Clarity of major themes	Were major themes clearly presented in the findings?	5 - 10
32.	Clarity of minor themes	Is there a description of diverse cases or discussion of minor themes?	5 - 10

From: Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int J Qual Health Care.* 2007;19(6):349-357.

Appendix 2: Interview guide

1. Instructions to Interviewer

The interview will be conducted for approximately 30 to 40 minutes and it will be audio recorded to ensure accurate transcription.

Each interview will be conducted in the same style and with the same questions, done by the same interviewer.

2. Administrative information

Questionnaire number: _____

Date of Interview: _____

Interviewee has given consent? Yes / No

3. Background Characteristics of Interviewee

Name of interviewee:

Age: _____

Sex: _____

Facility name: _____

District name: _____

4. Interview questions

1. Are. You currently working as a medical licentiate?
 - a. Yes
 - b. No

If answer is 'No' skip to question 5.

2. Do you see yourself working as a Medical Licentiate in the next 1 to 5 years?

- a. Yes
- b. No
- c. Not sure

Please explain your answer further: _____

3. What motivates you the most to continue working as a medical licentiate?

- a. Salary
- b. Job satisfaction
- c. Other (please specify): _____

Please explain your answer further: _____

4. Where do you see yourself working in the next 1 to 5 years?

- a. Government or Mission Hospital
- b. Private Sector Hospital
- c. NGO
- d. Other (please specify): _____

Skip to Question 8

5. Please state where you work: _____

6. What kind of work do you do?

- a. Clinical
- b. Surgical
- c. Administrative
- d. Other (please specify): _____

7. Please state the reasons that made you leave the medical licentiate profession:

8. Please state how satisfied you are with your current remuneration compared to the kind of work you do:

- a. Very dissatisfied with remuneration
- b. Dissatisfied with remuneration

- c. Satisfied with remuneration
- d. Very satisfied with remuneration
- e. Declined to answer

Please explain your answer further: _____

9. Please state how satisfied you are with your current accommodation.

- a. Very dissatisfied with accommodation
- b. Dissatisfied with accommodation
- c. Satisfied with accommodation
- d. Very satisfied with accommodation
- e. Declined to answer

Please explain your answer further: _____

10. Please state how satisfied you are with water and sanitation where you are

- a. Very dissatisfied with water and sanitation
- b. Dissatisfied with water and sanitation
- c. Satisfied with water and sanitation
- d. Very satisfied with water and sanitation
- e. Declined to answer

Please explain your answer further: _____

11. Please state how satisfied you are with electricity supply where you are.

- a. Very dissatisfied with electricity supply
- b. Dissatisfied with electricity supply
- c. Satisfied with electricity supply
- d. Very satisfied with electricity supply
- e. Declined to answer

Please explain your answer further: _____

12. Please state how satisfied you are with transport arrangements for your school going children.

- a. Very dissatisfied with transport

- b. Dissatisfied with transport
- c. Satisfied with transport
- d. Very satisfied with transport
- e. Declined to answer

Please explain your answer further: _____

13. Please state how satisfied you are with transport arrangements to and from work

- a. Very dissatisfied with transport
- b. Dissatisfied with transport
- c. Satisfied with transport
- d. Very satisfied with transport
- e. Declined to answer

Please explain your answer further: _____

14. Please state how satisfied you are with schooling for your children

- a. Very dissatisfied with schooling
- b. Dissatisfied with schooling
- c. Satisfied with schooling
- d. Very satisfied with schooling
- e. Declined to answer

Please explain your answer further: _____

15. Please state how satisfied you are with working opportunities for your spouse:

- a. Very dissatisfied with working opportunities for spouse
- b. Dissatisfied with working opportunities for spouse
- c. Satisfied with working opportunities for spouse
- d. Very satisfied with working opportunities for spouse
- e. Declined to answer

Please explain your answer further: _____

16. Please state how satisfied you are with work relations with medical doctors

- a. Very dissatisfied with work relations

- b. Dissatisfied with work relations
- c. Satisfied with work relations
- d. Very satisfied with work relations
- e. Declined to answer

Please explain your answer further: _____

17. Please state how satisfied you are with your career pathway

- a. Very dissatisfied with career pathway
- b. Dissatisfied with career pathway
- c. Satisfied with career pathway
- d. Very satisfied career pathway
- e. Declined to answer

Please explain your answer further: _____

18. Is there anything else that you feel is important and you would like to talk about concerning your experience as a medical licentiate?

ADDITIONAL QUESTIONS FOR MLS PERFORMING SURGERY

19. What kinds of surgical operations do you perform?

- a. Minor operations
- b. Major operations

20. How many hours do you think you spend in theatre per week? – u

21. What are the challenges you face in terms of providing surgery at this hospital?

22. How do you help to resolve these challenges?

23. Give me a few examples of challenges you have faced in terms of providing surgical services and how you overcame them -

24. Are you involved in planning the hospital budget and do you ensure that essential elements for surgery are provided? If yes please explain how you are involved.

25. Is there anything else you would like to mention concerning the role you play with regard to surgical services at this hospital?

