

**ASSESSMENT OF KNOWLEDGE ON BIOLOGICAL HEALTH HAZARDS IN THE  
HOSPITAL LABORATORY IN MWANANYAMALA REFERRAL HOSPITAL IN DARES  
SALAAM.**

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**ABSTRACT**

Hazards associated with transport, storage and handling of chemicals include the following; - explosions, and effects of toxic (poisonous harmful, irritating and corrosive chemicals. Poor management of Medical laboratory hazards exposes health workers, waste handlers and the community to infectious and toxic effect plus injuries.

**KEYWORD** Biological health hazards, laboratory and Mwananyamala referral hospital.

**Design:** A descriptive cross sectional study was used.

**Site:** The research was carried out in Mwananyamala referral hospital in Dar es Salaam.

**Economic Activities:** The major economic activity is business of farming of both cash and food crops such as; Matooke, coffee, tea, beans, ground nuts, and livestock, the area also has booming business consisting of retail shops, carpentry and others.

**Population:** The district has a population density of 187 persons per sq km. a population of 738355 as for 2002 population census

**Results:** The above data shows that most of respondents had average age 21-30(50%) and above 30 year 50% respectively. The majority of the respondents were females 61(61%) while the males 39(39%), greater percentage of the respondents was married 50%. However, even singles also participated well 24(24%) while individuals who are divorced were 11 and 15(15%) widows. Majority of the respondents (50%) of the respondents had attained certificate in Laboratory sciences, diploma in Laboratory sciences were (25%) and Bachelors degree in Laboratory Sciences were (25%). The majority of the respondents 80% had knowledge about biological health hazards while 20% of the respondents had no knowledge about biological health hazards.

**DISCUSSION:** Demographic characteristics. The study involved 20 respondents who were staffs from the Laboratory department of Mwananyamala Referral

hospital. The above data shows that most of respondents had average age 21-30(50%) and above 30 year 50% respectively. This is the reproductive and knowledgeable age.

According to sex of respondents majority of the respondents were females 61(61%) while the males 39(39%). That means that females are more exposed to dangers of biological health hazards than males. According to the results it shows that greater percentages of the respondents were married 50%. However, even singles also participated well 24(24%) while individuals who are divorced were 11 and 15(15%) widows. Majority of the respondents (50%) of the respondents had attained certificate in Laboratory sciences, diploma in Laboratory sciences were (25%) and Bachelors degree in Laboratory Sciences were (25%). Most of the respondents or all of the respondents had knowledge on the effects of biological health hazards and how its managed. They mentioned some of them as body fluids and excrete.

**CONCLUSION:** The majority of the respondents 80% had knowledge about biological health hazards while 20% of the respondents had no knowledge about biological health hazards. They mentioned some of them being, contaminated blood and its products, sputum, fluids from patients, stools etc.

**Recommendations**

- The government should carry out health education on the effects of biological health hazards to health workers.

- Hospital administration should provide protective measures/barriers to staffs especially when handling biological medical secretions/wastes.

## INTRODUCTION

Hazards associated with transport, storage and handling of chemicals include the following; - explosions and effects of toxic (poisonous harmful, irritating and corrosive chemicals. Poor management of Medical laboratory hazards exposes health workers, waste handlers and the community to infectious and toxic effect plus injuries. Thus, despite world health organization activities such as developing technical guidance, materials for assessing the qualities in different facilities, creating natural action plans, developing natural health care hazard management guidelines and building capacity at National level to enhance the way laboratory waste is dealt with in low income countries, it still remains a problem in various health centers.

## MATERIAL AND METHOD

### Design

A descriptive cross sectional study was used.

### Site

The research was carried out in Mwananyamala referral hospital in Dar es Salaam.

### Economic Activities

The major economic activity is business of farming of both cash and food crops such as; Matooke, coffee, tea, beans, ground nuts and livestock, the area also has booming business consisting of retail shops, carpentry and others.

### Population

The district has a population density of 187 persons per sq km. a population of 738355 as for 2002 population census

### Inclusion criteria and Exclusion criteria.

Only the laboratory hospital staffs were considered without considering the patients in the hospital.

### Sampling Technique

The most accessible method the researcher used in research is use of questionnaires by interview method where the respondents filled the questionnaires which contain open and closed ended questions. The method selects respondents regardless of their social economic

## A. DEMOGRAPHIC DATA.

### Age of Respondents

Table 1: Show age distribution the respondents

Age group	Frequency	Percentage
21-30	10	50
31-40	5	25
<41	5	25
Total	20	100

and educational status. Respondents considered being representatives for the study.

### Data Pre-testing

The data collection tools were pre-tested on five individuals in the study area. Necessary correction were made to make it friendly

### Data Analysis and Presentation

Two assistants were trained to help in data collection. Data was collected for one week. Questionnaires, pens, pencils, rulers were used in data collection. The data collected was analyzed using SPSS and Microsoft excel and presented inform of charts, bar graphs and tables

### Data quality control

This include Pre-testing which was done to ensure the eligibility of the questionnaire before research to find out if the respondents understood the questions in order to correct inappropriate and vague questions not understood before actual research by use of 10% of the questionnaires, Random sampling, training of 2 research assistants for 2 days on use of data collection tool and explaining on relevancy of unbiased data and the principal investigator should closely supervise the research assistants.

### Ethical considerations

The researcher was given an introductory letter by Kampala International University –Dar es Salaam faculty of Allied health sciences to be used when introducing himself to individual respondents during data collection, consent was requested to ensure confidentiality, and privacy, reassurance was done with emphasis that the purpose of the benefit of both the working staffs and the researcher and not for subsequent victimization of any body.

### Limitations of the Study

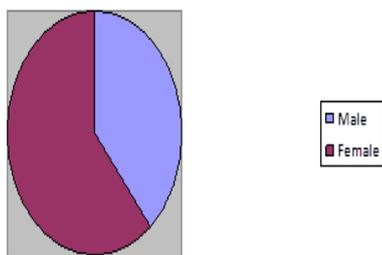
1. Funds may be inadequate and hinder realization of satisfactorily work
2. Some participants may lack co operation
3. Limited time to gather all the information.
4. Some participants may need motivation.

## RESULTS

The study involved 20 respondents who were staffs from the Laboratory department of Mwananyamala Referral hospital.

The above data shows that most of respondents had average age 21-30(50%) and above 30 year 50% respectively.

**Sex of the respondents**

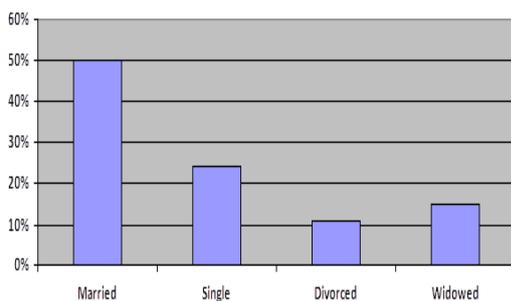


**Figure 1. Showing the sex of Respondents.**

According to figure 1 above, the majority of the respondents were females 61(61%) while the males 39(39%).

In the above figure the results show that greater percentage of the respondents was married 50%. However, even singles also participated well 24(24%) while individuals who are divorced were 11 and 15(15%) widows.

**Marital Status of Respondents.**



**Figure 2: Showing marital status of the respondents.**

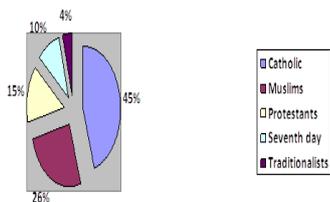
**Education levels of Respondents**

**Table 2. Education status of respondents**

Formal Education	Freq (n=100)	Percentage %
Certificate in laboratory sciences.	10	50%
Diploma in Laboratory science.	5	25%
Bachelor degree in Laboratory sciences.	5	25%
<b>Total</b>	<b>50</b>	<b>100</b>

Majority of the respondents (50%) of the respondents had attained certificate in Laboratory sciences, diploma in Laboratory sciences were (25%) and Bachelors degree in Laboratory Sciences were (25%).

**RELIGION OF RESPONDENTS.**

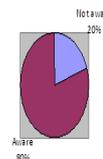


**Figure 3: Shows religion of the respondents**

The above figure represents the religion of the respondents. It shows that most of the respondents were Protestants 70% which hinders the Pentecostals, seventh

day Adventists, the Catholics, and Muslims were 26% and the rest 4% were traditions.

**B. Knowledge of health biological hazards.**



**Figure 6: Shows Knowledge/awareness of the biological health hazards in the hospital.**

The majority of the respondents 80% had knowledge about biological health hazards while 20% of the

respondents had no knowledge about biological health hazards. They mentioned some of them being, contaminated blood and its products, sputum, fluids from patients, stools etc.

### DISCUSSION, CONCLUSION AND RECOMMENDATION.

The researcher managed to interview 20 respondents who were staff in the laboratory of Mwananyamala referral hospital.

Demographic characteristics. The study involved 20 respondents who were staffs from the Laboratory department of Mwananyamala Referral hospital. The above data shows that most of respondents had average age 21-30(50%) and above 30 year 50% respectively. This is the reproductive and knowledgeable age. And it's the age mostly exposed to the biological health hazards that may lead to infection incase not well handled. According to sex of respondents majority of the respondents were females 61(61%) while the males 39(39%). That means that females are more exposed to dangers of biological health hazards than males. According to the results it shows that greater percentages of the respondents were married 50%. However, even singles also participated well 24(24%) while individuals who are divorced were 11 and 15(15%) widows. Majority of the respondents (50%) of the respondents had attained certificate in Laboratory sciences, diploma in Laboratory sciences were (25%) and Bachelors degree in Laboratory Sciences were (25%). Most of the respondents or all of the respondents had knowledge on the effects of biological health hazards and how its managed. They mentioned some of them as body fluids and excrete. According to the religion of the respondents. It shows that most of the respondents were Protestants 70% which hinders the Pentecostals, seventh day Adventists, the Catholics, Muslims were 26% and the rest 4% were traditions. Therefore Christians are more exposed to effects of biological health hazards.

### CONCLUSION

The majority of the respondents 80% had knowledge about biological health hazards while 20% of the respondents had no knowledge about biological health hazards. They mentioned some of them being, contaminated blood and its products, sputum, fluids from patients, stools etc.

### RECOMMENDATIONS

- The government should carry out health education on the effects of biological health hazards to health workers.
- Hospital administration should provide protective measures/barriers to staffs especially when handling biological medical secretions/wastes.

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