

**FACTORS INFLUENCING OCCUPATIONAL HEALTH AND SAFETY  
PRACTICES IN THE PRIVATE HOSPITALS IN MOMBASA ISLAND**

**BY  
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**A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL  
FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF A  
MASTER OF ARTS DEGREE IN PROJECT PLANNING AND  
MANAGEMENT OF THE UNIVERSITY OF NAIROBI**

**2012**

## DECLARATION

This research project report is my original work and has never been presented for award of a degree in any other university

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**REG: L50/60644/2011**

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## DEDICATION

This research project report is dedicated to my wife Deborah, my two lovely daughters Defrodah and Fridah and my son Mzee Sabiti as a sign of love towards them.

## **ACKNOWLEDGEMENT**

Quite a number of people have helped me as I was through the process of completing my report

Special thanks to Dr. Moses Otieno who is my project supervisor for his special direction and guidance as I was struggling to accomplish this research proposal.

Many thanks also go to my lecturers on various subjects who gave me the knowledge to write this project

Finally, I would like to thank my wife Deborah for her encouragement and understanding while I was attending the course

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## **LIST OF ABBREVIATIONS**

**OSH – Occupational safety and health**

**HIV – Human Immuno Deficiency Virus**

**AIDS – Acquired Immuno Deficiency Syndrome**

## ABSTRACT

The objectives of the research were to determine the factors that influence occupational safety and health practices at the private hospital in Mombasa Island, the contribution of health and safety measures of working environment and also assess the impact of work environment as on working conditions and the effects of health care workers and to develop a theoretical framework to explain relationships involved. The importance of health and safety is demonstrated by the cost of compliance in terms of job related injuries and workers compensation as well as absence from duty. The study has explored how to improve the attitudes towards safety by both the administration and the employees. It has identified health and safety practices, current situation and preventive measures that should be taken to improve the situation. The success by any organization depends largely on the constant reinforcement and review of health and safety measures. The virtual aspect is to keep the employees' health and safety. The research involved review of literature on occupational health and safety from various books which concluded that effective health and safety policy and programs are vital and a legal requirement for any organization with more than five employees. The study involved various statistical analyses on both secondary and primary data obtained from three hospitals in Mombasa Island whose bed capacity is more than eighty. Qualitative data was obtained from about 50% of the staff in each hospital using a self administered questionnaire followed by a proportionate stratified sampling to ensure representation of all cadres since the population is heterogeneous. Interview and observation guide were also used during the study. The result of the study demonstrates that there is adequate provision of facilities in the hospitals. However there are no health and safety programs in place. The hospitals do not have a clear strategy and commitment to health and safety. It was also established that the environment and ergonomics is also good in those hospitals. In addition it was found out that most of the employees are literate and hence could read and understand safety rules and regulations, but majority have not undergone any training. It was also established that the hospitals do not keep records of accidents and no investigation on causes of accidents were kept if any occurred. The research recommends that training of health and safety should be mandatory at recruitment and when risk change. This can be done through seminars, workshops, meetings and on job training. The management should ensure provision of enough protective equipment, devices and clothing to safeguard against hazard and ill health. The research makes suggestion that a similar study is conducted in government aided hospitals and also a risk assessment is carried out in the private hospitals.



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# CHAPTER ONE

## INTRODUCTION

### 1.1. Background of the Study

Occupational safety and health (OSH) is concerned with protecting safety, health and welfare of people engaged in work or employment. The goal of occupational safety and health programme is to foster a safe and health working environment. As a secondary effect OSH may protect co-workers, family members, employers, customers, suppliers. nearby communities and other members of the public who are impacted by the work place environment as well as reduce medical care, sick leave and disability benefit cost.

Originally hospitals meant a place where strangers or visitors were received; in the course of time, its use was restricted to institutions for the care of the sick. A hospital is a health care institution providing patient treatment by specialized staff and equipment. During the middle ages hospitals served different functions to modern institutions being almshouses for the poor, hostels for pilgrims or hospital schools. They are usually funded by public sector comma, by health organizations (for profit or non profit), health insurance companies or charities including direct charitable donations. Historically hospitals were often founded and funded by the religious or charitable individuals and leaders. Today hospitals are largely staffed by professional physicians, surgeons and nurses, whereas in the past the work was usually performed by founding religious holders or by volunteers. There are about 17,000 hospitals in the world. In Kenya there are three hundred and twenty. Mombasa County alone has twenty four hospitals out of which eight are sponsored by the government. The rest are privately owned by communities, individuals and churches. For the purpose of this study , we will concentrate on the major private hospitals with bed capacity of over eighty. This includes Aga khan Hospital-Mombasa, Mombasa Hospital and Pandya Memorial hospital.

The overall aim of the study is an evaluation of Health and Safety practice at the main private hospitals in Mombasa county. Also to assess the impact of health and safety on the workers at those hospitals.

On both ethical and legal grounds, the safety of all employees affected by an organization's operations must be of major concern of every one employed in an organization and the management.

Health and safety at work act (1974), provides the basic framework in setting the basic principles and duties on those involved. Every employer should ensure the Health and safety at work for all employees. Every employee must take reasonable care at work, personal safety and that of others, and must co-operate with the employer on matters related to safety. Standards of health and safety are not fixed, since the act frequently uses the phrases “as is reasonable”, to qualify its provisions.

With innovation in safe procedures and new awareness of hazards, what may be acceptable and practicable in one area may be seen a hazardous and unacceptable in another.

Injuries inflicted by the system of work or working conditions cause loss and suffering to individual's employees and their dependants. Accidents and absence through ill health result in losses and damage to the organization. It is hoped that this research will provide useful guidelines for the management and workers at Pandya Memorial hospital to formulate viable policies and procedures on Health and safety, increase training for staff on Health and safety practices etc.

## **1.2. Statement of the Problem**

Work plays a central role in people's life, since most workers spend at least eight hours a day in the work place. Therefore work environment should be safe and health. This is not yet the case for workers of the private hospitals in Mombasa Island.

Everyday workers in all this hospitals are faced with a multitude of health hazards such as exposure to occupational diseases such as Tuberculosis, HIV (AIDS) and other communicable diseases. With various medical activities that take place at those hospitals both medical and non medical staff at those facilities are exposed to hazardous and risky conditions, handling of hospital waste materials, exposure to radio active rays in the x-ray department, overcrowded wards due to shortage of wards due to shortage of wards, poor sanitation, poor ventilation coupled with improper hospital waste disposal means that staff in the hospital are exposed to numerous hazards and hospital waste obnoxious smell pollution. Toilets in the wards are not clean, the kitchen floor is slippery, hence the institution is characterized by inadequate working facilities, equipment and poor health and safety practice. Unfortunately some of the hospital management assumes little responsibilities for protection of the workers health and safety. Infact, some of management do not even know that they have a moral and often legal responsibility to protect the workers. It is the intention of the research to evaluate the health and safety practices of staff in the hospital, consider the

health and safety policies and programs in place and the extent to which these are practically applicable, how effective they are and suggest possible solutions for improvement.

Healthy and safety in hospitals has been compromised because, although it is a legal requirement, those hospitals that flout it are not prosecuted for lack of proper enforcement. This study therefore seeks to re-emphasize the importance of Health and safety program and evaluate the health and safety practices of staff in Pandya Memorial hospital in order to provide practical case study information on how the institution are responding to this important requirement.

In nutshell the study will provide a basis upon which improvement in enforcement. of health and safety practices can be developed at the main private hospitals in Mombasa county and also serve as a reminder to the hospital administration of their moral and legal obligation towards delivering an effective health and safety programme in order to protect the lives and health of their staff and clients.

Finally but not the least, the study will help the organization to understand the fact that it is cheaper to develop viable Health and safety programmes than meet the costs like compensation for injuries inflicted, legal fees and other requirements.

### **1.3 Purpose of the Study**

The purpose of this study was to examine factors influencing occupational, health and safety practices in the Private Hospitals in the Mombasa Island.

### **1.4 Objectives of the Study**

In order to improve health and safety practices at the private hospitals in Mombasa Island the survey is undertaken with the following objectives;

- i. To establish the extent to which legal requirements regarding health and safety at work, influence self and health practices at the private hospitals in Mombasa Island.
- ii. To establish the extent to which management of health and safety programme and safety committees influence Health and Safety Practices at the private hospitals in Mombasa Island.
- iii. To establish the extent to which working environment influence health and safety practices at the private hospitals in Mombasa Island.

- iv. To establish the extent to which health and safety education or awareness influence health and safety practices at the private hospitals in Mombasa Island.
- v. To establish the extent to which accidents and health and safety programmes influence health and safety practices at the private hospitals in Mombasa Island.

**1.5 Research Questions**

The research aimed at trying to answer the following questions;

- i. To what extent do the legal requirements; Employment act, Workman’s compensation act and Health and Safety at Work Act influence health and safety practices at the private hospitals in Mombasa Island?
- ii. How does the management of health and safety programmes and safety committees influence health and safety practices at the private hospitals in Mombasa Island?
- iii. How does the work environment influence health and safety practices at the private hospitals in Mombasa Island?
- iv. How does health and safety education, training and awareness influence health and safety practices at the private hospitals in Mombasa Island?
- v. How does accidents influence health and safety practices at the private hospitals in Mombasa Island?

**1.6 HYPOTHESIS**

The following hypothesis were utilized for the study. The first hypothesis

- 1. Ho: Legal requirements are not effective in influencing the health and safety practices in hospitals.  
Hi: Legal requirements are effective in influencing the health and safety practices in hospitals.
- 2. Ho: There is no different in attitude on existence of health and safety programs in the private hospitals in Mombasa Island.  
Hi: There is different in attitude on existence of health and safety programs in the private hospitals in Mombasa Island.
- 3. Ho: The environment has no effect on health and safety practices in the private hospitals in Mombasa Island.  
Hi: The environment has effect on health and safety practices in the private hospitals in Mombasa Island.

4. Ho: Hospitals workers knowledge of occupational health and safety differ significant among the private hospitals in Mombasa Island.  
Hi: Hospitals workers knowledge of occupational health and safety does not differ significant among the private hospitals in Mombasa Island.
5. Ho: Accidents influence health and safety practices in private hospitals in Mombasa area.  
Hi: Accidents influence health and safety practices in private hospitals in Mombasa area.

### **1.7 Significance of The Study**

The following were significance of the study;

- i. The employees of the private hospital will benefit from more effective Health and safety programs
- ii. The study will encourage Pandya Memorial Hospital Administration to conduct a critical review of the existing Health and safety practices and programs with a view to making them more effective.
- iii. The study will have an overview on how workable and effective Health and safety programs should look like.
- iv. The study will give the researcher a better understanding of health and safety issues in organizations generally. It is also an important part requirement for the aware of Masters Degree in Project Planning and management, which he is currently undertaking
- v. The research will also form a basis of reference for other Researchers.

### **1.8 Delimitation Of The Study**

The study will focused on the factors that influence health and safety practices at the private hospitals in Mombasa County.



## **1.9 Limitations Of The Study**

The study faced the following challenges;

- i. Confidentiality of sensitive information may prevented the researcher from accessing files and literature which may provide more information on past accidents, their causes and subsequent action in order to deal with this, the researcher will do observation on various issues and relied on verbal information.
- ii. Funds were not inadequate in facilitating data collection, traveling and report writing since this required engagement of research assistants at least two. The researcher borrow money from his cooperative to meet the costs.
- iii. The researcher was not able to interview all the staff, because they work on shifts and those who work during the night were not interviewed directly. The researcher however left questionnaires with the Hospital Administrator to give them out to the night shift staff.
- iv. Lack of co-operation by some of the employees limited access to information required for the research. The researcher tried to persuade the employees to fill the questionnaire by first having a session to sensitize them before giving them the questionnaires.
- v. The researcher was prompted to zero down due to time pressure, as the time was too short to gather enough information for the research. However the researcher sampled the population.

## **1.10 Basic Assumptions of the study**

Though Health and Safety programs protect employees from illness, minimize probabilities of accidents. It was assumed that:-

- i. The current health and safety programs remained in force during the period of the research
- ii. The same management remained in place and did not change before or during the research. Co-operation from the management was to be there and would not deter the research
- iii. The then legislation on health and safety did not change before or during the research.

## 1.11 Definition of significant terms

**Assessment:** Refers to deciding and fixing the value or quality of something

**Hazard:** A written guide or plan of action for use by management and supervisors in order that they reach the organizations' objectives following set broad patterns of behavior

**Health:** A state of complete physical, mental and social well being and not merely the chance of disease or infirmity. It is an employee's freedom from physical, mental or emotional illness.

**Health and Safety Audit:** Provide more comprehensive review of all aspect of Health and Safety policies, procedures and practice programs.

**Health Education:** The program that emphasize personal choice and lifestyle and individual behavior change

**Program:** Is a sequence of activities designed to implement policies or objectives. It gives a step by step guide for action necessary to reach a predetermined goal.

**Risk:** The chance, large or small of harm actually being done by hazard

**Risk Assessment:** Identify specific Hazards and qualify of the risk attached to them

**Safety:** Refers to the quality or state of being free from danger

**Safety Inspection:** Examine specific areas of organizational operation in order to locate and define any faults in the system, equipment, plant or machine or any operational errors.

## 1.12 STRUCTURE OF THE REPORT

The study is on factors influencing occupational health and safety practices in private hospitals in Mombasa island. It is divided into five chapters excluding the declaration, dedication, acknowledgement, abbreviation and acronyms, abstract, references and appendices. Chapter one introduces the subject and explain the problem, purpose, objectives, research questions, hypothesis, significance, limitations and assumptions of the study, it also define significant terns used. Chapter two is on literature review of the subject and concludes with a conceptual framework of the topic. Chapter three is on the methodology used. It explains the research design, target population, sample and sampling techniques and how data was collected and validated, it also explains the ethical considerations and operational definition of variables. Chapter four is on data analysis and presentation. Chapter five explains the summary of findings, discussion , conclusion, recommendations and suggested areas for further research.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

Occupational health and safety aim at promotion and maintenance of the highest degree of physical, mental and social well being of the workers in all occupations. It also aims at prevention among workers of adverse effects of health caused by their working conditions. It also aims at protecting of workers in their employment from risks resulting from factors adverse to health and placing the maintenance of workers in an occupational environment adopted to physical and mental needs. Finally it aims at the adaptation of worked to humans. In other words occupational health and safety encompasses the social, mental and physical well being of workers that is the “whole person”

In this chapter various factors and matters on Occupational Health and safety practices of employees in an organization are to be reviewed as per the different scholars, who have researched and written books about the subject. It also includes the contribution of Health and safety practices on employees` performance, the impact of Health and safety on employees. It covers among others, working conditions, Health and safety practices, employee welfare together with relevant statutory and common law provisions on matters of Health and safety at work environment.

The following sub-heading are to be covered on evaluating the Health and safety practices at work place:

- a. Working environment, health and safety at work
- b. Health and safety policy and its importance
- c. Components of a health and safety programme
  - i) Management
  - ii) Safety committees
  - iii) Safety representatives
- d. Accidents at work
  - i) Causes of accidents
  - ii) Risk Assessment
  - iii) Safety inspections and audits
  - iv) Costs involved in accidents
  - v) Preventive measures of accidents

- vi) Accident reports
- vii) Compensation for accidents at work
- e. Legal requirements regarding Health and safety at work
- f. Health and safety education and training

## 2.2 Review of related literature

### 2.2.1 Working environment, health and safety at work

According to Strawa and Sayles (1980) until recent years, managers generally considered employees Health and Safety relatively a minor concern. The dark, dirty, dangerous workshops on the early days of industrial revolution were history. Tools and factories has been redesigned, safety equipment had been introduced and workers were bombarded with warnings to work safely.

The modern places was considered a good place to work, but now this complacency has been shattered by rising accidents statistics and the discovery that, many materials used in manufacturing pose long term threats to health. Employee Health and safety today is a complex, multidimensional problem according to the world Health Organization (WHO), Health is a state of complete physical and social well-being and not merely the absence of diseases or infirmity.

It is an employee's freedom from physical. Mental or Emotional illness. Health and Safety at work go hand in hand. Safety thus is the protection of employee's from injuries due to work related accidents.

According to the **WHO (1986)** a healthy work place is:-

- a. A place where health risks are recognized and controlled if they cannot be removed.
- b. A place where design is compatible to people, Health needs and limitations
- c. An environment that support protection of health styles
- d. A place where employees and employers recognize their responsibility for their health and health by the colleagues.

Modern industrial society creates conditions in which it all too easy their people to become victims of hazardous and stressful events at work. Certain environment hazards impinge on our sense for example, an intolerable level of noise could be the cause of acute discomfort and eventually lead to deafness. Doctors and nurses may suffer ill health from handling of

patients suffering from communicable disease like Tuberculosis (TB), HIV / AIDS, Typhoid etc. lab technologist may suffer discomfort from X-rays emitted from X0rays machines.

Workers in the kitchen may suffer due to slip and injure her / him

According to **British safety council (1994)**, factors which affect health of workers can be divided into two groups namely:-

- a. Those which can associate with his working environment
- b. Those which he/she shares with the rest of the community.

As regards to factors that are shared by the community, it seems reasonable to hold that workers should have the facilities for health protection that the state provides, but as regards the factors in working environment. which tend to provide ill health to workers has s right to demand special measure for protection i.e. preventive and curative health service, hence according to **chair (1999)** a work[ place can contribute significantly to promoting wider public health objective across the country. Health and safety cost money, but money alone cannot buy them. Clearly organizations that constantly have fewer accidents are willing to pay substantial cost of constant educational programs, surveillance, equipment modifications and research.

They avoid the easy management view that after all, a certain number of accidents are inevitable, particularly in hazardous work. Health is one of the rights for all people. The development of service to promote health is party of the battle against the scourges of poverty, ignorance and diseases.

According to **Smith and Jackson (1988)**, the aim of health service is to provide medical care both preventive and curative, and the attainment of highest standard of health is one being without discrimination in terms of race, religion, political. Economic and or social condition.

In broad term, Health is concerned with the effect that work may have effect on the people or lack of it may have on their ability to work

According to **Wood (1983)** the emphasis on positive health is the cornerstone of all health education activities and involves the process of enabling individuals and communities to increase control over the determinants of health and therefore improve their health

According to **NZUVE (1990)**, Health is the employees freedom from physical or emotional illness while safety is the protection of employees from injuries due to work related accidents

According to **AMSTRONG** (1999) Health and safety policies and program are concerned with protecting employees and other people affected by what the company produces and does against the hazards arising from their employment or their links with the company.

### 2.2.2 Determinants of health and safety

According to **CASCIO** (1981), the factors which determine Health and safety in organizations are:-

- a. Nature of the job. Some jobs are more hazardous than others e.g. coal mining compared to office work.
- b. Employee's attitude. Some employees resist the safety measure instituted by the management for example, refusal to wear protective clothing, refusal to carry out an extra safety procedures, others simply reckless.
- c. Manager's goal and commitment. Employers that are committed to the Health and Safety of their employees are ready to adopt measures towards this end.
- d. Profitability. Some employers, however are more interested in making profits than how it is made, therefore do not bother about Health and Safety of their workers.
- e. Other Employers do see and appreciate the need to safeguard their workers but their financial positions cannot allow them to carry – out adequate Health and Safety programs.
- f. Type of technology according to **SAYLES** (1981) is also a factor for example, high speed equipment, laser and radiation

Health and safety determines are thus driven by biological, environmental, ecological factors, by lifestyles and behavioral variables and by people perception of the controlled by socio-economic and political influences. The practice of occupational health does not occur in a vacuum, it has context and links with other over arching factors.

According to **COMPENHAGEN** (1998), social determinants are the key to reducing health inequalities

Industrialization has brought with it many occupational disease and injuries arising from poor working conditions, environmental as stated above, pollution, ignorance at work place. Health and safety, poor management and organization at work

According to **STRAWS** and **SAYLES** (1980) Health and safety in an organization can be determined by the following:

- a. Type of the industry. Some occupations are more hazardous than others depending on the size of the firm.
- b. Management attitude. Management policies and efforts also make a difference
- c. Technology – Modern technology uses high-speed equipment, more lasers and radiation and a variety of organic chemicals and plastics.
- d. Employee can create accidents, however it is difficult to separate human from technological causes.

### 2.2.3 Importance of health and safety

According to **GUPTA (1996)**, Health and safety in an organization is important because:-

- a. It maintains and improves productivity and quality of work
- b. Minimizes absenteeism and labor turnover
- c. Reduces industrial unrest, indiscipline and accidents
- d. Improves employee motivation and morale
- e. Reduces spoilage and cost operations
- f. Preserves the physical and mental Health of Employees

**AMRSTRONG (2000)** argues that, Health and safety in an organization is important in that:-

- a. Elimination or minimization of Health and safety risks and hazards is a moral as well as legal responsibility of employers
- b. Health and injuries inflicted or caused by systems or work or working conditions cause suffering and loss to individuals and their dependants
- c. Accidents and absences thorough ill health or injuries result in losses and damages to the organization

According to **BETTS (1980)** some of the losses are

- a. Costs of damaged equipment, machines and plant.
- b. Cost of wages for time lost by injured workers
- c. Cost of supervisors and staff in investigating, recording and reporting accidents
- d. Costs of replacing injured employees.
- e. Poor employee health leads to high level of absenteeism and low level of productivity

**GRAHAM 1998)** agree with him by saying that the cost of accidents at work is enormous, both in Human suffering and lost production.

#### 2.2.4 Health and safety policy and its importance

According to **BURCHILL** and **CASEY** (1996), any firm employing more than four workers is legally obliged to prepare a written statement of its Health and safety and bring this to all employees attention.

The statement should contain a description of the firms' safety organization (e.g name of company safety officers, union representatives, and information about the safety committees and details of specific alarm systems, procedures for reporting accidents, facilities and safety training.

According to **NAYULOR** (1996), Health and safety at work act requires that a safety policy be published and that there should be programmes of instruction and training to ensure its compliance. Typical company safety policies reiterate the general principles of the act expressing them in the companies' context. They should set out how Health and safety will be promoted, planned and controlled within the section. Here safety problems are addressed through a process of continuous improvement. There is a legal requirement to record all accident resulting to loss of work time and other hazards, hence reduce the incidence or impact.

According to **COLE** (2000), every employer with more than five (5) employees is required to prepare and keep an up to date written statement of the safety policy. This he adds reflects the employee's commitment to safety and Health at work. It should also indicate what standards of behavior are aimed at in Health and Safety. The policy statement should be drawn to the attention of all employees.

According to **PRAFT AND BENETH** (1978), all employees except for those with less than five employees are required to formulate and publish a written statement of general policy for Health and safety of employees. Provision is also made for policies to be regularly revised and such be communicated to staff. He further points out that in the formulation of the policy the following guideline should be published:-

- a. The statement should lay down broad policy principles which should then be elaborated and interpreted as appropriate for the needs of various organizational levels and location.
- b. The statement should make clear the importance of health and safety precaution and the role of all employees in maintaining a safe and healthy working environment.
- c. The statement should declare the employer's intention to provide the safest and healthiest working conditions possible.



- d. Rules and regulations of specific hazards should be stated. Details of ways of dealing with other common hazards such as machines safety guards and protective clothing should be included.
- e. The statement should identify the officer responsible for the fulfillment of the policy together with others responsible for implementing the policy.
- f. A description of point consultative committee for health and safety should be included together with others who are members of such committees.
- g. Management intention to achieve a healthy and safe environment through training and effective supervision should be emphasized together with management proposal to achieve such ends
- h. Procedures for further for further reporting and recording of accidents should be described together with arrangement for the analysis and communication of accidents date to management and safety committees.

### 2.2.5 Health and safety programmes

Health and safety programs are concerned with:-

- a. Guiding the organizations management on plans of action and how the safety objectives can be met
- b. Protecting employees and other people affected by what the organization or company procedures and does against the hazards, either from their employment or their links with the company
- c. Helping to eradicate or minimize accident occurrence and production cost brought about by accidents.
- d. Declaring the intent of the management to protect employees and how to realize the intents.

According to **ARMSTRONG (2000)** occupational Health programs deal with the prevention of ill health arising from the working condition.

He further says that an effective Health and safety program should include the following:-

- a. Conducting of risk assessment which identify hazards and assess the risks attached to them.
- b. Carrying out of Health and safety audits and inspections
- c. Implementing of Health and safety audits and inspections
- d. Management of stress
- e. Prevention of accidents

- f. Measuring of Health and safety performance
- g. Communicating the need for good Health and safety practices
- h. Training in good Health and safety practices
- i. Organizing health and safety
- j. **ZAYLES (1981)** state that good Health and safety programs include:-
- k. Safety training and
  - l. Inspection and discipline of careless employees
- m. Control of the work environment **SCHEER (1997)** argues that a successful safety program must be;-
  - n. Planned to fit the needs of operations
  - o. Organized to encourage willing participation
  - p. Administered with support and dedication
  - q. Stimulated to perpetuate interest and enthusiasm
  - r. Evaluated to encompass ideas and methods
  - s. The programs should contain safety rules (written, practical reflecting on unsafe acts or conduct), safety meetings, safety training and Education, accident prevention, safety inspections, safety records on frequency and severity of accidents and safety committees.

## **2.2.6 Management of health and safety programs**

### **(a) Employees**

According to **NAYLOR (1996)**, every employee must, at work take reasonable care for his or her own, safety and that of others and must co-operate with the employer on matters related to safety.

### **(b) Employer**

According to **BETITS (1983)**, it is a duty of every employer to ensure so far as reasonably practical Health and safety and welfare at work for all employees.

- a. Provision and maintenance of plant and systems of work that are as far as is reasonably practical safe and without risks to health
- b. Provision of such information, instructions, training and supervision is necessary to ensure Health and safety of employees at work
- c. Provision and maintenance of a working environment
- d. The role of the employers according to **ATLOR (1996)** is to:

- e. Produce a statement of general safety policy and how it is to be implemented and distributed to all employees.
- f. Ensure that work places, their plant and process are safe and do not have health risk
- g. Provide safe means of entry and exit
- h. Instruct, supervise and train all employees in good Health and safety practices in work place
- i. Consult with, according to published code of practice, employee representatives
- j. Ensure that persons who are employed are given information on safety and hazards, both in relation to their working within the premises.

### **2.2.7 Role of the management.**

According to **BETTTS (1983)**, the management of an organization has the following role to play in implementing a Health and safety program:-

- a. To issue a written statement of safety policy
- b. To establish an organization and allocate responsibilities for Health and safety matters
- c. To train members of the company in health and safety matters
- d. To establish a safety committee
- e. To ensure that first aid facilities exist
- f. To provide appropriate procedures and documents to minimize accidents
- g. To consult with safety representatives appointed under the safety representative regulations with a view to making and maintaining arrangement which promote and develop measure for safety and Health of Employees and checking the effectiveness of such measures

### **2.2.8 Safety representatives**

According to **BURCHILL and CASEY (1996)**, states that in consequence of the Health and safety at work place act 1974, if a firm recognizes a trade union, then if the union so wishes it may safety representatives at the place of work.

The role of safety representatives are:-

- a. To investigate accidents and dangerous occurrences
- b. To inspect the work place every 3 months or following as approaches accident or near accident

- c. To make representations to the management on safety matters.

He further argues that safety representatives are entitled to copies of any relevant information on accidents; Departmental managers are obliged to accompany the representatives during inspections.

Notice of an inspection need not be given if an accident has just occurred, and that safety representatives are entitled to: reasonable facilities” for undertaking inspections **COLE (1997)** further argues that as part of general intention to increase the involvement of ordinary employees in safety and health matters, the 1974 Act provides for regulations to be made concerning the appointment of safety representatives amongst employees in cases where an independent trade union is recognized by the management. The safety representatives and safety committees regulations 1877 gives the functions of the representatives as follows:-

- a. To investigate potential hazards, dangerous concurrencies, and to examine the causes of accidents at work place
- b. To investigate employee complaints
- c. To make representations to the employer about matters of health, safety and welfare affecting the employees
- d. To carry out inspections in the work place to certain provisions
- e. To represent the employees in work place consultations with Health and safety inspectorate
- f. To attend meetings of the organizations safety committee.

### **2.2.9 Safety committees**

According to **COLE (2000)** the regulations relating to safety representatives include obligations regarding the establishment and operation of safety committee at the work place.

A safety committee is composed of employees and trade union representatives

The overall aim of safety committee is the promotion of co-operation between employers and employees in investigating, developing and carrying out measures to ensure the health and safety at work place of employees. The function of safety committee according to **COLE (1997)** include:

- a. Studying trends in accidents etc with a view to making suggestions for corrective action
- b. examining safety reports and making proposals for avoiding accidents etc
- c. examining and discussing reports from safety representatives
- d. making proposals for new or revised safety procedures

- e. Acting as a link between the organization and the enforcement agency (the Health and safety inspectorate).
- f. Monitoring and evaluating the organization's safety policy, and making proposals for changes if necessary.

**BURCHILL (1997)** further adds voice to this, and states that a safety committee is composed of two or more union representatives of employees of the organization. The role of safety committee thus is to:-

- a. Consider welfare, health and safety matters affecting employees.
- b. To consider trends in accidents within the firm
- c. To consider the causes of specific accidents
- d. To undertake a safety training and development and implementation of safety rules.

According to **BURCHILL (1997)** there has to be equal representatives of union members and management of the committee and the management should have sufficient authority to implement committee decisions.

### **2.2.10 Management of health and safety**

According to **BURCHILL (1997)**, a number of regulations on management of Health and safety at work came into force in 1993 requiring employees to undertake risk assessment exercise intended to identify potential dangers to the health and safety of employees or anyone else likely to be affected by the firm's operations.

Health and safety regulations 1992 required the management of the firm to:-

- a. Devise and implement specific procedures for dealing with emergencies
- b. Train employees in safety matters and ensure they are capable of avoiding risks
- c. Take into account working conditions and local work place hazards when selecting equipment
- d. Identify unavoidable risks in relation to handling operations, having regard to the shape, size and weight of the load and the ergonomic conditions in work place and humidity available etc

According to **ARMSTRONG (2000)**, Health and safety at work place can be managed through:-

- a. Developing Health and safety policies
- b. Conducting risk assessment, which identify hazards and assess the risks attached
- c. Carrying out Health and safety audits and inspections
- d. Implementing occupational health programmes.
- e. Managing stress
- f. Measuring Health and safety performance
- g. Communicating the need for good health and safety practices
- h. Training in good health and safety practices
- i. Organizing health and safety

It is evident that Health and safety programs cannot succeed without the involvement and support of employees. Good employer / employee relationship must be maintained for the benefits of a healthy and safe work place. The support of trade unions, safety representatives and committees is always useful for active participation on matters related to Health and safety at work place and the implementation of Health and safety policies and programs.

### **2.2.11 External inspections**

According to **WAWERU (1984)**, government inspectors visit firms periodically to ensure they are complying within legal requirements on Health and safety practices. Inspections also occur following complaints by workers or members of the public and after serious accidents. If an inspector finds that an offense has been committed, then may either:-

- a. Inform the employer on the spot of the unsatisfactory item and later ensure that remedial action has been taken
- b. Serve an important notice compelling positive action
- c. Prosecute the firm before a court of law

### **2.2.12 Accidents and their causes**

According to **GRAHAM AND BENNET (1998)**, an accident is an unplanned event which occur within a planned programme and is actually or potential harmful to the worker. According to **BETTS (1983)**, accidents are caused by various forms of neglect such as careless, use of machines or tools, failure to wear protective clothing, taking risks,

inconsideration for nearby colleagues, lack of concentration and failure to use safety devices. All these amount to poor attitude towards safety.

**DESSIER (1978)**, states that there are three factors that contribute to accidents:-

- a. Job itself
- b. The work schedule
- c. The psychological climate

**NZUVE (1999)** on the other hand argues that the cause of accidents are first Human and secondly technical.

Human, when the employees

- a. Have improper attitudes
- b. Are careless
- c. Are unable to perform the job

Technical, when there are deficiencies in plant, equipment, tools or materials and the general work environment which may constitute poor lighting, excessive noise, poor house keeping and inadequate ventilation

**GRAHAM (1998)**, further argues that accidents proneness may exist due to:-

- i. Unsuitability for the or lack of training
- ii. Temporary factors e.g frustrations etc
- iii. Alcoholism
- iv. Use of drugs

### **2.2.13 Accidents proneness**

According to **BETTS (1983)**, an employee is invariably accident prone, probably because he has great difficulty in concentrating for any length of time. People who are suffering from nervous disorder which manifest itself in period of moodiness, temperamental outburst, unco-operative ness and general antisocial conduct are often faced with certain lapse of concentration and can cause accidents, hence susceptible to accident proneness.

**GRAHAM and BENNET (1998)**, brings other theoretical approaches to the difference in accident rates.

- a) The domino theory which assess accidents typically occur following practical series of independent stages involving:-
  - i. Unsafe environment
  - ii. Individual's fault

iii. Dangerous acts

- b) The situational; theory which propounds that accidents occur following failures in working systems rather than behavior or accident proneness.

**WAWERU (1984)**, further argues that all employees do have the same chance to coming by an industrial accident. He says that accident proneness may have been rendered so by the psychological make up or work environment itself

- a. Insufficient intelligence
- b. Poor plant and equipment
- c. Physical inadequacies such as poor sight, hearing, smelling etc
- d. Ineffective training in safety practices
- e. Distance for the job or dislike of the supervisor
- f. Insufficient manual skill required to perform the task in the job effectively.

#### **2.2.14 Risk assessment / health and safety audits**

According to **ARMSTRONG (2000)**, risk assessment identify specific hazards and quantity the risks attached to them, while Health and safety audit provide more comprehensive review of all aspects of health and safety policies and procedures and practices for the whole organization or departments

Risk assessments therefore evaluate and predict risks in qualitative and quantitative terms and are focused son predicting the probability of effects on health of Human and environmental resources. It's aimed at:-

- a. Hazard elimination through design improvement and change of production
- b. Substitution through replacement of chemicals.
- c. Use of barriers
- d. Use of warning systems like signs, labels, instructions etc
- e. Use of personal protective clothing etc

While Health and safety audits cover, the use of:

- a. Policies
- b. Procedures
- c. Safety practices

Safety audits use all the above, but its purpose is to generate action by assessing the practices and costs and draws up action programs.



### 2.2.15 Safety inspections

According to **ARMSTRONG (2000)**, safety inspection is designed to examine a specific area of organization like operational or manufacturing production in order to locate and define any faults in the system. It should be carried out on regular and system basis by the line managers and supervisors with advice and help of health and safety advisor.

### 2.2.16 Preventive measures of accidents / accidents report

According to **ARMSTRONG (2000)**, accidents can be prevented by:-

- a. Identifying cause or conditions where they are most likely occur
- b. Taking into account safety factors at design stage
- c. Regular risk assessment and audits
- d. Investigating all record
- e. Maintaining good record
- f. Good leadership and motivation
- g. Designing safety equipment, protective devices and protective clothing
- h. Continuous training and education of staff

**Dessler (1978)**, argues that in order to prevent accidents, the following have to be undertaken:-

- a. Reduction is unsafe conditions
- b. Proper selection of employers
- c. Use of propaganda like posters
- d. Training
- e. Positive re-enforcement

**GRAHAM AND BENNET (1978)**, brings in the concept of ergonomics, which is concerned with the study of mutual adjustment between people and their work. This is possible through designing equipment, the environment and work and working procedures which promotes both well – being of employees and effectiveness of work processes. Environment here include Heating, ventilation. **Sayles (1981)**, accidents can be prevented through:-

- a. Engineering i.e. construction of safe plant tree from potential hazards redesigning machinery equipment and equipment etc
- b. Selection approach, where accident-prone workers should not be hired
- c. Establishment of safety department to make policies and regulations and programs
- d. Staff where by safety department is established to and safety supervisors

**WAWERU (1984)**, says that supervisor, should ensure a safe working environment by training employees on safety practices

According to the **GRAHAM (1998)**, accident reports are useful in identifying and preventing the occurrence of dangerous activities, by analysis recurring case and effects to dangers in machinery, work methods, paces of production, shift work pattern etc on the frequency of accidents.

### **2.2.17 Compensation for accidents at work**

According to **GRAHAM AND BENNET (1998)**, an injured employee who considers his/her injury to be due to the negligence of the employer may bring an action for damages under the common law. The employer is held liable for accident caused was in the course of their employment.

If action is successful the employee is awarded a sum depending on the severity of the injury. The employer's liability act (1969) requires employers to take out insurance against such claims. Such claims are independent of any action.

### **2.2.18 Legal requirement regarding health and safety.**

**NZUVE (1999) and DESSLER (1978)**, both agree that organizations have both moral and legal obligation to provide a healthy and safe working environment as well as ensuring the total well being of their employees. In addition, Dessler adds the economic factor, which has led employees to provide health and safety programmes to reduce cost incurred in paying out compensation and repair of damaged equipment. Consequently there is developed legislation all over the world that required employees to abide by safety regulation in Kenya, the factories act cap 514 of the laws of Kenya and amended in 1990 to protect the workers from accidents and secure for them, in employment, conditions conducive to their health and safety. The provision of this act require employers to maintain an inspection staff and make provision for maintenance of Health, cleanliness, prevention of overcrowding, and amenities like lighting, ventilation, drinking water and sanitary conveniences.

The general provision of the act includes the development of safety programs, which on compass:-

- a. A thorough investigation of all accidents and a system of and procedure for reporting accidents illness, safety and Health hazards, fire precautions and arrangements for maintaining high standards of hygiene with regard to harmful substances.

- b. Arrangement for sufficient information, instructing work people on safe working methods and training employees in Health and safety matters.
- c. Continuous review of accident prevention measures and ensuring that machines are guarded, gangways kept clear, electrical equipment insulated and house keeping requirements maintained
- d. Special rules for work done at a height in confined spaces and on certain unguarded machinery.
- e. Maintenance of equipment and provision of proper inspection and testing arrangements
- f. General rules on safe working habits and special rules for internal transport drives
- g. Arrangement for checking new machinery
- h. Safe inspections
- i. Safety devices and the provision of personal protective equipment and rules as to its use.
- j. Provision of any accidents which occur.

The workman's compensation act cap 136 of the laws of Kenya was passed in 1948 in order to provide for the payment of compensation by certain classer of employers to their workmen for:-

- a. Personal injury caused to them by accident
- b. Any occupational disease contracted by them.

Sect 5(1) of the act states that " if in any employment, personal injury by accident arising out of and in the course of the employment is caused to a workman, his employer should subject as there after provided, be liable to pay compensation in accordance with the provision of this, and as for the purpose of this act an accident resulting in the death or serious and permanent incapacity of a workman, shall be deemed to arise out of and in the course of his employment.

Injury in this case is only physical and mental, but also psychological and physiological. This act lays down rules for compensating deaths, permanent total incapacity, permanent partial incapacity, temporary incapacity and method of calculating earnings.

The **employment act cap 226** of the laws of Kenya was also passed and among its provisions, states:-

- a. There must be at least one rest day every week for each worker

- b. The employer shall provide some reasonable medical facilities to the employees
- c. The employer shall supply sufficient supply of water

In Britain according to **GRAHAM (1998)** and **PART (1979)**, the Health and safety at work act 1974 was passed. The act lays down general principles of safety and providing the power to make detailed safety regulations.

The principle duty of the employer according to the act as stated by **COLE (2000)** is

- a. To ensure, so far as is reasonably practicable the health, safety and welfare at work of all employees. More specifically, the employer is expected:-
- b. To provide and maintain plant and systems of work that are safe and without risks.
- c. Ensure safety in the use, handling, storage and transport of articles and substances
- d. To provide sufficient information, instruction and training and supervision to ensure Health and safety of all employees.
- e. To maintain a safe place of work and safe means of access and exit.

In India, according to **GUPTA (1996)**, the factories act was passed in 1948 and it has provision on:-

- a. Cleanliness
- b. Disposal of waste and effluents
- c. Ventilation and temperature
- d. Dust and fumes
- e. Over crowding
- f. Latrines and urinals

In America, the occupational safety and health act (**OSHA**) was passed in 1970. **SAYLES (1981)** stated and healthy work environment and to live up to the explicit standards. Consequently the occupational safety and health act formulated standards which employers work expected to meet. The declared congressional purpose and policy of the act as quoted by **CASCIO (1981)**, was to assure so far as possible, every working man and woman in the nation safe and healthful working conditions and to preserve Human resources.

This was followed by creation of:-

- i. The occupational safety and health administration
- ii. The national Advisory committee on occupational health and safety
- iii. The occupational review commission.

iv. The national institute for occupational safety and health.

According to **BURCHILL (1996)** and **BENNET (1997)** under the health and safety work act (1974), firms have a general duty to ensure so far as to reasonably practical, the health and safety at working for all employees. Breach of this duty can lead to a criminal prosecution. Plant, machinery and other equipments must be safe and well maintained and all arrangements for handling, storing and transporting articles and substances must be safe and free of health hazards.

The act acquires employees to take reasonable care to ensure they neither endanger themselves nor others at work, but it is the responsibility of the employer to insist that safety policies are implemented. Health and safety executive's issues codes of practices which while not legally binding are looked by courts when adjudicating cases.

**BETTS (1993)**, says in addition to solid obligations of health and safety, there are two main sources of law which protect the employee:-

- i. The common Law (written), established by customs and is supported by precedents which are referred to as case law
- ii. Statute law – passed by parliament in 1974 its broad and generalized in nature, under the common law there is a liability for safety of employees. The employer may be sued for danger if he does not provide reasonably safe systems of work. If the employer ignores this obligation, the injured person may sue for damages and in serious cases the state may consider the offence a crime and prosecute. Another legal aspect of safety measure arises when an employee commits a civil wrong, or tort during the course of his employment, he is liable to civil suit.

Statute law aims at:-

- a. To secure Health, safety and welfare of people at work by involving every body at work
- b. To protect people other than those at work against any risks to Health and safety arising out of or in connection with the activities of people at work
- c. To control storage and use of explosives or highly inflammable or dangerous substances
- d. Control the emission into the atmosphere of toxic or offensive substance from prescribed premises

**NB:** It has become increasingly recognized that an employee Health and Safety have some bearing on productivity, and that governments through appropriate legislations have put pressure on employer to ensure safety and good Health of workers.

In the developed economics employers have on the whole accepted the idea of minimizing industrial injuries and accidents and have instituted their relevant programmes on positive measures to promote the physical and mental health and welfare of workers.

In the developing economics, however, the employers have not been particularly bothered about the well-being of the workers and the government invention has been invariably been necessary.

In Kenya, the Health and safety situation in the Locally incorporated and smaller companies has been on the whole less satisfactory than that of the subsidiaries of the internationally firms, hence workers safety and general health programs left much to be desired as per the standards set by the factories act cap 514.

From the employee`s point of view, industrial injuries and poor health could occasion considerable loss in the long run and in the short term. The situation is more worse with the worker who may incase of major injury is not covered by insurance policy, hence through the relevant legislations as enshrined in their provisions, it important for employers to reduce the rate of injuries and infringement on workers Health as earlier stated.

### **2.2.19 Health and safety education and training**

According to **ARMSTRONG (2000)**, safety training spells out the rules and provides information on potential hazards and how to avoid them.

It is part of the preventive program. This is done through:-

- a. Induction course
- b. Transfer to new job or changes in working methods
- c. Refresher course and training should be provided to deal with aspects of Health and safety to employees.

**BETTS (1983)**, further argues that lack of experience and poor training also cause accidents.

The question of safety and the correct method of performing a task are an essential part of any raining scheme. The importance of correcting bad habits as they appear is emphasized from the safety aspect and the supervisor must check new and existing employees for allowing a new comer to work on his own before reaching a suitable level of competence is inviting him to have an accident.

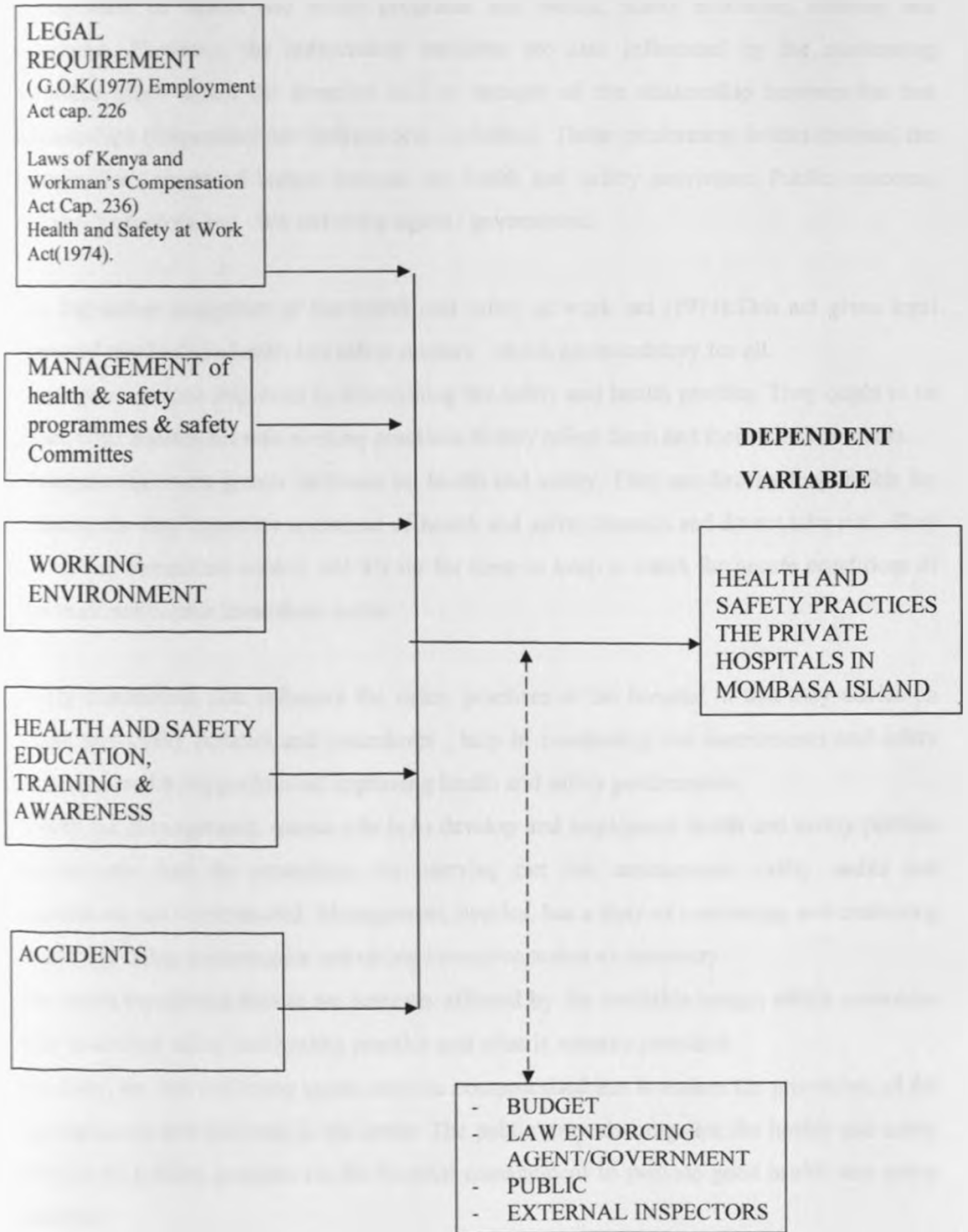
According to **BENNET (1997)** and **BURCHILL (1996)**, section 2 of the Health and safety act (1974) requires employment to provide training and instructions to workers. In this are two types of training:-

- a. Training in rules and regulations
- b. Policy training for managers

Safety training needs to cover the law codes of practice relevant to the organization. According to **V.N. BHAT (1998)**, health and safety training includes training on personal protective equipment, emergency preparedness and documentation of accident courses.

### 2.3 Conceptual framework

#### Independent variables



#### MODERATING VARIABLE



In the above conceptual framework, health and safety practices (Dependent variable) is influenced by a number of factors which form the independent variables and include the legislation, the employees concerns, the managers attitude , safety committees, accidents, management of health and safety programs and health, safety education, training and awareness. However, the independent variables are also influenced by the moderating variables which affect the direction and or strength of the relationship between the two relationships (Dependent and independent variables). These moderating factors include, the organizations approved budget towards the health and safety provisions, Public concerns, external inspectors and law enforcing agent / government.

The legislation comprises of the health and safety at work act (1974).This act gives legal expected standards in health and safety matters which are mandatory for all.

Employees are also important in determining the safety and health practice. They ought to be aware what constitutes safe working practices as they affect them and their fellow workers.

Managers also exert greater influence on health and safety. They are directly responsible for ensuring the employees are conscious of health and safety hazards and do not take risk. They are also in immediate control and it's up for them to keep a watch for unsafe conditions or practices and to take immediate action.

Safety committees also influence the safety practices at the hospital in that they advice on health and safety policies and procedures , help in conducting risk assessments and safety audits and make suggestions on improving health and safety performance.

Finally the management, whose role is to develop and implement health and safety policies and ensures that the procedures for carrying out risk assessments, safety audits and inspections, are implemented. Management, besides, has a duty of monitoring and evaluating health and safety performance and taking corrective action as necessary.

The above mentioned factors are however affected by the available budget which constrains what is desired safety and healthy practice and what is actually provided.

Similarly, the law enforcing agents may be compromised not to ensure the provisions of the legislation are not followed to the letter. The public may also regulate the health and safety practice by putting pressure on the hospital management to provide good health and safety practices.

## 2.4 Summary of literature

From the forgoing literature review, it is evident that an effective health and safety policy and program are vital and a legal requirement for any organization with more than five employees.

A written safety and health program guides the management in handling health and safety matters in an organization. Failure to implement the policies leads to accidents, which are costly both to the employers and employees. Management commitment and integration of safety and health concerns in planning in same footing with other core functions like productivity and quality is vital in any organization. Employers should be involved and trained in health and safety practices. Programs need to be reviewed constantly since methods of production keep changing and are always accompanied by new risks and hazards.

Both management and employees have a collective responsibility to improve health and safety in the organization. The burden of the legal responsibility however rests with the management. The legislation gives employees through their representatives a say in health and safety matters. These representatives are however not liable to legal responsibility.

It is important for the management to meet the standards set by the health and safety legislations. It is cost effective to avoid industrial accidents than compensation.

Procedures for identifying and eliminating dangerous situations should be in place and adequate information, on how to use tools, equipment and plant safely should be disseminated to employees. Protective equipment and clothing should be a priority to prevent workers from unsafe situations and environments. The health and safety policy should describe the duty of every one in the organization. Training programs, seminars and workshops should be encouraged for employees or their representatives for a health and safety work environment and practices

The study, therefore intends to suggest possible solutions to the health and safety practices at the main private hospitals in Mombasa, and it is hoped same will assist the administration of the Hospital to minimize and protect employees from unsafe working conditions and practices.

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.1 Introduction

This chapter describes in details the research process, research design, target population, sample size, data collection method and data analysis methods.

#### 3.2 Research design

The research utilized descriptive study with a mix approach of qualitative and quantitative design. The data was collected through a series of formal interviews and participatory observations. This provided a descriptive form of the opinions of the staff of various hospitals regarding occupational health and safety practices in their hospitals.

#### 3.3 Target population

The study was done at the private hospitals in Mombasa Island whose bed capacity is eighty and above: Mombasa hospital, Pandya memorial hospital and Aga Khan Hospital whose staff establishment is 180, 210 and 240 as shown in table 3.1. However the study utilized a sample due to limited time, cost and labour resources. Some of the staffs also works in shifts and in different hours which made it difficult to reach them. The distribution of staff per cadre is as shown in the table 3.2 below.

Table 3.1: Target Population

HOSPITAL	NUMBER OF BEDS	NUMBER OF STAFF
PANDYA	95	180
MOMBASA	80	210
AGA KHAN	111	240
TOTAL	286	630

Table 3.2 Distribution of staff per cadre

No.	Cadre	PANDYA	MOMBASA	AGA KHAN	TOTAL POPULATION
1	Doctors	9	11	12	32
2	Administrative Officers	4	4	4	12
3	Clerical Officers	4	4	4	12
4	Drivers	2	3	2	7
5	Clinical Officers	18	21	24	63
6	Copy Typists	9	11	12	32
7	Support staff	54	63	72	189
8	Nurses	36	42	48	126
9	Lab Technicians	7	8	10	25
10	Pharmacists	9	11	12	32
11	Radiographers	5	6	8	19
12	Oral Health Technician	7	8	10	25
13	Occupational therapists	7	8	10	25
14	Medical Records Officers	4	4	4	12
15	Physiotherapists	5	6	8	19
	<b>TOTAL</b>	180	210	240	630

### 3.4 Sample size and sampling procedures

Out of the 10 employees a sample of 5 employees was selected for study through stratified random sampling technique. This represents 50% of the total work force in three private hospitals in Mombasa Island that are available to fill safety and health practices questionnaires. The sampling frame is as shown in table 3.4.

The respondents who will fill up the questionnaires will be selected using proportionate stratified sampling to ensure representation of all cadres, job groups, gender and nature of work. Stratification will ensure that the sample represents staff in proportion in which they exist in actual population. The study will involve all the departmental heads and other staff from all the three private hospitals in Mombasa.

The researcher will use stratified sampling frame which fits, because the population is heterogeneous and not of the same characteristics as analyzed in the overall population

Both random and systematic sampling techniques assume that the population is evenly distributed or randomly distributed. This is not usually true in real life where populations are quite often unevenly distributed. In such cases both random and systematic samplings tend to generate a sample which over represents dispersion and under represents concentrations.

Stratified sampling therefore, attempts to overcome this problem of over or under representation. The researcher therefore will use stratified sampling by dividing the population into sub-groups or strata (stratum), which will be done according to the degree of concentration of occurrence. Samples will then be drawn from each stratum to ensure that each stratum is adequately represented. The size of the sample to be drawn from a stratum is controlled by the proportion of that stratum in the population.

Once stratification is done on the basis of concentration and dispersion, random or systematic sampling will be used to obtain the sample and give each respondent a non- zero probability of being selected. This method is convenient as it will produce more spread of the sample over the population list. This will lead to greater precision. The sample fraction will be used to obtain random individual unit from the sampling frame, hence the respondents selected will be a representative of the larger population since element of one stratum will have the same characteristics.

The researcher will select 321 employees from the whole population of 630 i.e. a percentage of 50.95%. It is expected that out of the selected population a certain percentage will not respond.

**Table 3.3 Sampling Frame**

No.	Cadre	PANDYA	MSA HOSP	AGA KHAN	TOTAL
1	Doctors	5	5	6	16
2	Administrative Officers	2	2	2	6
3	Clerical Officers	2	2	2	6
4	Drivers	1	2	1	4
5	Clinical Officers	9	11	12	32
6	Copy Typists	5	6	6	17
7	Support staff	27	32	36	95
8	Nurses	18	21	24	63
9	Lab Technicians	4	4	5	13
10	Pharmacists	5	6	6	17
11	Radiographers	3	3	4	10
12	Oral Health Technician	4	4	5	13
13	Occupational therapists	4	4	5	13
14	Medical Records Officers	2	2	2	6
15	Physiotherapists	3	3	4	10
	<b>TOTAL</b>	<b>94</b>	<b>107</b>	<b>120</b>	<b>321</b>

### 3.5 Data collection methods

The data collected started with a meeting with management of each of the three hospitals to discuss the exercise and agree. This was then followed by meeting with the employees to administer the research instrument and conduct the survey. The procedure to collect data was influenced by the research instrument used.

**Primary data collection** - This was the main source which involved the use of questionnaire and key interview guides. In view of the above mentioned approach the following instruments was developed for use by the researcher.

- a) Key interview guide- for heads of departments and representatives groups
- b) Questionnaire – All other staff: Clerks, Copy typists, Cleaners etc.
- c) Observation –

### **Interviews**

The researcher will developed a list of relevant questions on items to be administered to the heads of department and request them to answer some questions. The researcher and assistant noted the answers given, the data obtained was in exact accordance with instructions.

### **Questionnaires**

This was administered directly to informants. The respondents filled in answers in written form and the researcher collected the form with completed information. The instruments were distributed to the respondents by the researcher and researcher assistant. Respondents were then be given time to complete answering questionnaires. All questionnaires were gathered after a given response time is over. The questionnaire consisted of both closed ended questions and open ended options.

### **Observation**

The researcher prepared an observation schedule giving guidance to activities to be recorded in during observation study.

Secondary data collection – This was collected and critically examined from published and unpublished materials. textbooks, journals, official record in search of information on past and current operation of the three hospitals.

## **3.6 Data collection procedure**

The data was collected by the researcher himself through the various instruments

### **a) Observation**

The researcher observed the prohibited and precautionary measures in place, procedures in place, working environment, conditions of plant tools and equipment, working environment in the kitchen, wards, laundry and various departments as well as the welfare facilities in

place. The observation will be noted and recorded in the observation guide. The researcher will also observe the employees at work especially the nurses who are having poor performance. The researcher will read their report, look at the chart and watch them do some nursing procedures such as giving medication.

#### **b) Interview guide**

This method comprised mainly of both structured and un-structured type of questions. Interview was conducted with administrators and departmental health and recorded in the notebook.

#### **c) Questionnaire**

Questionnaire was administered to the respondents and collected after an agreed time after they are duly completed. The respondents filled the questionnaires themselves. The respondents included nurses, doctors both trained and untrained staffs, kitchen staff and maintenance crew.

#### **d) Document analysis**

The researcher perused documents and other reports related to the study and record the information in a notebook.

### **3.7 Validity and reliability of research instruments**

Before collecting data the researcher pre-tested the research instrument. A pilot study was conducted using a randomly selected sample of 10 staff in each hospital. This helped to find out if 'everything works' as far as the research instrument is concerned. This will assist in foreseeing all potential misunderstanding or biasing effects of different questions and procedures. It will also help in testing the viability of the study techniques and to perfect the questionnaire concept and wording. The findings from the study will be used to measure the reliability of data collection instruments.

### **3.8 Ethical consideration**

The researcher ensured the following ethical issues are observed:

- (a) The researcher maintained confidentiality



place. The observation will be noted and recorded in the observation guide. The researcher will also observe the employees at work especially the nurses who are having poor performance. The researcher will read their report, look at the chart and watch them do some nursing procedures such as giving medication.

#### **b) Interview guide**

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Questionnaire was administered to the respondents and collected after an agreed time after they are duly completed. The respondents filled the questionnaires themselves. The respondents included nurses, doctors both trained and untrained staffs, kitchen staff and maintenance crew.

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### **3.8 Ethical consideration**

The researcher ensured the following ethical issues are observed:

- (a) The researcher maintained confidentiality

- (b) The researcher obtained informed consent from any subjects used in the study and must ensure that all subjects participate voluntarily.
- (c) The researcher fully explained the research in advance and debriefed subjects afterwards.
- (d) The researcher took all reasonable measures to protect subjects physically and physiologically. Even voluntary participants can get “carried away” to the point where they have to be protected from themselves and each other. The researcher must be prepared to intervene even at the cost of the study to protect the subject.

### **3.9 Data presentation and analysis techniques**

After collecting data, the researcher pre-processed it (edited it) this involved identifying problems that are identified in the raw data like different results obtained by the two researchers. This involved eliminating unusable data especially where the researcher finds two or more questions providing the same data. It also involves interpreting of ambiguous answers and verifying or rejecting contradictory data from related questions.

A coding scheme is then formulated after editing the raw data by correcting any error that may influence data analysis. This involves assigning numbers or other symbols to answers or responses so that the responses can be grouped into a limited number of classes or categories. After coding the data is entered into a computer and then stored electronically. A statistical software package is chosen which is relevant to the data analysis. In this case the data was stored under SSP (Statistical simplest package). The data is then analyzed and displayed using tables, charts/graphs and percentages.

### 3.10 Operational definition of variables

The table below explains how the researcher will go about measuring the inferences he has indicated in the study.

Objective	Dependent Variable	Independent variable	Indicators	Instrument used	Scale
To establish the extent to which Kenya labour laws, workman's compensation act and health and safety at work act, influence safety and health practices at the main private hospitals in Mombasa Island.	Health and safety practice in the main private hospitals	Safety control measures	i. Warning signs and personal protective equipments ii. No of staff wearing protective clothing	Observation	Nominal
To establish the extent to which management of health safety programmes influence Health and Safety Practices at the main private hospitals in Mombasa Island.	Health and safety practice in the main private hospitals	Health and safety policies	Safety Personnel	i. Interview ii. Questionnaire	Nominal
To establish the extent to which safety committees influence health and safety practices at the main private hospitals in Mombasa Island.	Health and safety practice in the main private hospitals	Safety control measures	i. Existence of safety committees ii. Health and safety awareness meetings	Interview questionnaire	Nominal
To establish the extent to which health and safety education or awareness influence health and safety practices at the main private hospitals in Mombasa Island.	Health and safety practice in the main private hospitals	Training	Safety conscious number of training record	Questionnaire Interview Observation	Nominal
To establish the extent to which accidents influence health and safety practices at the main private hospitals in Mombasa Island.	Health and safety practice in the main private hospitals	Accidents records	Incidents and injuries	Questionnaire Interview Observation	Nominal

## CHAPTER FOUR

### DATA ANALYSIS, PRESENTATION AND INTERPRETATION

#### 4.1 Introduction

This chapter describes the data presentation and findings. The data was collected using questionnaires, observation guide, interview guide and from staff records.

Data analysis started as soon as the first questionnaires were received. The researcher set-out to establish the current health and safety practices in place, to identify the factors affecting the effectiveness of the Occupational Health and Safety practices in The private Hospitals in Mombasa Island and to come up with some recommendations towards improvement of the situation.

The researcher analyzed the collected data with the help of tables, pie charts and bar graphs. The analysis covers the following sub-topics. The distribution of employees at The private Hospitals in the Island, the level of education of staff, health and Safety programmes in place, health and safety education and training, legal requirements like protective equipment, Working environment and Management commitment and how they influence the occupational health and Safety practices in the private hospitals in Mombasa Island.

#### 4.2 Distribution of employees at the private hospitals

The researcher sought to know the distribution of employees in the private hospitals at Mombasa Island. He further grouped the staff into five cadres which included the medicals, paramedics, subordinate, technical and non technical the information which was obtained from the questionnaires was tabulated as shown below.

<i>Cadre</i>	<i>Medics</i>	<i>Pura Medics</i>	<i>Technical Staff</i>	<i>Subordinate Staff</i>	<i>Non Technical Staff</i>	<i>Total</i>
Pandya Hospital	18	54	10	21	77	180
Mombasa Hospital	22	63	12	24	89	210
Aga Khan Hospital	24	72	16	30	98	240
Total	64	189	38	75	264	630

**Table No. 4.2 Showing distribution of employees**

From the table and pie chart above, it shows that 30% of the staff in the private Hospitals are paramedics (clinical officer nurses), 12% subordinate staff, 6% technical staff (lab technicians, occupational therapist), 42% non-technical staff (drivers, administrative officers, copyist), while 10% are the medics (Doctors and the pharmacists)

**4.3 Number of respondents from the questionnaire distributed.**

From the research a certain number of questionnaires issued to the sampled population were not returned. This information was tabulated and analyzed as shown below.

Cadre of staff	Total number of staff number of staff in the hospitals			Total number of questionnaire issued			Total number of questionnaires received back			Percentage of response from the sample total
	P	A	M	P	A	M	P	A	M	
Medics	36	48	42	18	24	21	11	15	13	39/63=62%
Paramedics	54	72	63	27	36	31	16	22	19	57/94=60%
Technical	27	36	32	14	18	16	8	11	10	29/48=60%
Non-technical	18	24	21	9	12	11	6	7	7	20/32=63%
Subordinate	45	60	52	23	30	26	14	18	16	49/79=61%
Total	180	240	210	91	120	105	55	73	65	

**Table No. 4.3: Demographic characteristics of respondents**

NB – P represents Pandya Hospital, A – Aga khan Hospital and M – Mombasa Hospital

The above table illustrates that out of the sampled population of employees who were issued with questionnaire only 193 responded by returning them, a percentage of 61%. This was a good representation and the researcher was able to get information to enhance him get data, make viable recommendations based on findings.

#### 4.4 LEVEL OF EDUCATION OF RESPONDENTS

The researcher sought to establish if health, safety education, training and awareness influence the health and safety practice in the hospitals. He gathered information on the level of education of the respondents and also the levels of health, safety education, training and awareness. The data collected was as analyzed below.

LEVEL OF EDUCATION	NUMBER OF RESPONDENTS PER HOSPITAL			TOTALS	PERCENTAGE
	P	A	M	P + A + M	
University	13	16	15	44	23
Secondary	19	26	23	68	35
Diploma	14	19	17	50	26
Certificate	9	12	10	31	16
TOTAL	55	73	65	193	100

**Table No. 4.4: level of education of the staff**

From the sampled population of 316 employees only 193 responded in filling the questionnaire and were able to be interviewed by the researcher of which their response is displayed in table No. 2

The overall rating on the levels of education is that out of the 193 respondents 44 have acquired a university degree a percentage of 23%. Those that have attained secondary education (O-levels) a percentage of 35%. 50 have acquired a diploma in respective profession a percentage of 26%. The other 16% i.e. 31 respondents acquired a certificate. Therefore the findings, indicates that the respondents were able to read and understand the Occupational Health and Safety rules and regulations.

#### 4.5 HEALTH AND SAFETY EDUCATION AND TRAINING

The respondents were required to explain in the questionnaire whether they have undergone any Health and Safety training. They responded as shown in table No. 5 below.

OPINION	FREQUENCIES			TOTAL	PERCENTAGE
	PANDYA	AGA KHAN	MOMBASA HOSPITAL		
Have attended training	21	28	25	73	38
Have not attended training	34	45	40	120	62
TOTAL	55	73	65	193	100

**Table No. 4.5: attendance of Education and training on Health and safety matters.**

The overall rating on health and safety education is that 62% of the staff who responded did not undergo any training course, seminar or workshop on health and safety and that such matters are not emphasized during staff meetings. Most of the employees hence have little knowledge of the Health and Safety guideline. This information is also displayed in the bar graph No.1 in the next page.

The bar chart shows that 120 respondents out of 193 have not undergone any training, and have no education or information on Health and Safety while only 73 staff members have undergone such training especially on the job training and seminars as it was evident from their response in the questionnaires.

#### 4.6 MANAGEMENT OF HEALTH AND SAFETY PROGRAMS IN THE PRIVATE HOSPITALS AT MOMBASA ISLAND.

Management of health and safety programs in the hospitals has an influence on the Occupational health and safety practices in the hospitals. The researcher tried to find out whether there is existence of health and safety programs in place at the hospitals.

The response is as tabulated below.

OPINION	FREQUENCIES			TOTAL	PERCENTAGE
	PANDYA	AGA KHAN	MOMBASA HOSPITAL		
Exist	11	15	15	41	21
Do not exist	45	57	50	152	79
<b>TOTAL</b>	<b>56</b>	<b>72</b>	<b>65</b>	<b>193</b>	<b>100</b>

**Table No. 4.6: existence of health and Safety programme**

The above table indicate that, only 41 respondent out of 193 conceded that there is a health and safety programme in existence to guide the management on the course of action to maintain a safe and healthy working environment for its staff. 152 respondents composing of 79% of the total respondents indicated that there is no Health and Safety programme in place and do not know the standard of behavior expected of them in health and safety matters. The respondents attributed this due to lack of management commitment, lack of funds, materials and proper instruments to ensure the success of the programme. This is also aggravated by lack of education and training and inadequate facilities.

The researcher however, from the observation guide noted that no regular inspection on Hospital facilities was carried out. No records of accidents or incidents. Were kept Research on accidents is not kept as well.

#### **4.7 Legal Requirements Regarding To Health And Safety**

The researcher sought to find out whether the hospitals comply with legal requirements by for example giving out warning signs for safety and also provide safety equipments like hand gloves, protective clothing, overalls and others.

The observation was done on presence of writings and displayed instructions and warning signs on health and safety and was captured as shown below.

Opinion	Frequencies			Total	Percentage
	Pandya	Aga Khan	Mombasa Hospital		
Yes	22	29	26	77	40
No	33	44	39	116	60
<b>TOTAL</b>	<b>55</b>	<b>73</b>	<b>65</b>	<b>193</b>	<b>100</b>

**Table No. 4.7: the presence of safety instructions and warnings.**



From the table above, it is evident that the Hospital do not displayed posters and warning on safety matters as required by the Law. The overall rating on presence of writing and displayed instructions and warning signs of health and safety is 60% of the respondents said there are no such warning signs in place while 40% stated that there was presence of written and displayed instructions on safety.

The researcher, as well through the assistance of the observation guide was able to establish that the posters were only on isolated places and some were not legible enough to convey the message. This was an indication that safety matters and regulations were not given enough emphasis by the management of these private Hospitals.

#### 4.8 Working Environment and Ergonomics

The researcher sought to find out the working environment and its influence on health and safety practices in the hospitals. This was done with the aid of observation guide. The researcher visited the following Hospital facilities which included Hospital laboratories, X-ray departments, Pharmacies, Hospital kitchens, Laundries, Various wards, Theatres. He also observed the presence and use of protective equipments which included, hand gloves, Overalls, Safety foot wear (gum boots), Caps used in theatre, Face masks, Breath bag apparatus, and Safety helmets.

The general cleanliness was fairly adequate with exception of a few wards some were on renovation. The ergonomics was good the respondents were asked whether the environment affects them. Observation was done on the working environment and the analysis was shown below.

The respondents were asked to state on the questionnaires, whether the protective equipment, devices and protective clothing provided were adequate. The analysis is as below:-

OPINION	FREQUENCIES			TOTAL	PERCENTAGE
	PANDYA	AGA KHAN	MOMBASA HOSPITAL		
Not affected	23	35	35	100	52
Affected	20	50	30	93	48
TOTAL	43	85	65	193	100

Table No. 4.8: Environment and ergonomics affecting the staff

The overall rating from the findings was that 52% of the respondents stated that there were adequate protective equipment in the place of work, while 48% said that the protective equipment provided to them were not adequate. From the results it's evident that the equipment and clothing were not adequate and were required to be procured to satisfy the requirements.

The researcher observed that due to shortage of the protective devices, some of the staff attends to patients without the use of the devices to protect himself from injury or disease. The equipments are inadequate. Some respondents though provided with the protective devices do not use them, due to lack of training, negligence and poor supervision.

#### **4.9 MANAGEMENT COMMITMENT TOWARDS HEALTH AND SAFETY**

It is the duty of management of any firm to device and implement specific procedures and documents to minimize accidents, to train members in health and safety matters. They must also issue a written statement of safety policy as well as maintaining an arrangement which provide and develop measures for safety and health of employees whilst checking on the effectiveness of such measures.

From the research findings 56% of the respondent strongly refuted the management commitment of health and safety matters on the hospital and 44% agreed that the management is committed.

#### **4.10 TESTING OF HYPOTHESIS**

**In order to find the relationship between the hospitals' workers knowledge on health and safety and the different hospitals, the following Hypotheses were tested.**

##### **4.10.1: Hypothesis 1**

Ho: Hospital workers knowledge of occupational health and safety does not differ significantly among hospitals.

Hi: Hospital workers knowledge of occupational health and safety differ significantly among hospitals.

Using the data obtained about the level of education, knowledge and safety of the staff the following table was used.

Level Of Education	Actual Frequencies			Totals	Percentage
	Pandya	Aga Khan	Mombasa	P + A + M	
University	13	16	15	44	23
Secondary	19	26	23	68	35
Diploma	14	19	17	50	26
Certificate	9	12	10	31	16
<b>TOTAL</b>	<b>55</b>	<b>73</b>	<b>65</b>	<b>193</b>	<b>100</b>

#### 4.10.1.0: level of education and knowledge of occupational health and safety of the staff

The above table shows the level of education and awareness of occupational health and safety practices.

The information is arranged in a 3 x 4 table as follows.

Level Of Education	Actual Frequencies			Totals
	Pandya	Aga Khan	Mombasa	P + A + M
University	13	16	15	44
Secondary	19	26	23	68
Diploma	14	19	17	50
Certificate	9	12	10	31
<b>TOTAL</b>	<b>55</b>	<b>73</b>	<b>65</b>	<b>193</b>

#### 4.10.1.1: Frequencies of levels of education and knowledge of occupational health and safety of the staff.

On the basis of those frequencies, the expected frequencies were calculated as below:-

Level of Education	Expected Frequencies			Totals
	PANDYA	AGA KHAN	MOMBASA	P + A + M
University	$44/193 \times 55 = 13$	$44/193 \times 73 = 16$	$44/193 \times 65 = 15$	44
Secondary	$68/193 \times 55 = 19$	$68/193 \times 73 = 26$	$63/193 \times 65 = 23$	68
Diploma	$50/193 \times 55 = 14$	$50/193 \times 73 = 19$	$50/193 \times 65 = 17$	50
Certificate	$31/193 \times 55 = 9$	$31/193 \times 73 = 12$	$51/193 \times 65 = 10$	31
<b>TOTAL</b>	55	73	65	193

**4.10.1.2: Expected frequencies of levels of education and knowledge of occupational health and safety of the staff.**

The  $\chi^2$  calculated is as follows;

O	E	(O - E)	(O - E) <sup>2</sup>	$\frac{(O - E)^2}{E}$
13	13	0	0	0
19	55	-36	1296	23.564
14	14	0	0	0
9	9	0	0	0
16	16	0	0	0
26	26	3	9	0
19	19	0	0	0
12	12	0	0	0
15	15	0	0	0
23	23	0	0	0
17	17	0	0	0
10	10	0	0	0
<b>TOTAL</b>				<b>23.564</b>

**4.10.1.3: Chi Calculated on hypothesis 1**

Chi Square =  $\sum \frac{(O - E)^2}{E} = 23.564$

E

$V = \text{Number of degrees of freedom} = (r - 1)(c - 1) = 1 \times 2 = 2$  degrees of freedom

For two degrees of freedom at 5% significant the critical value for Chi Square = 5.991.

O	E	(O - E)	(O - E) <sup>2</sup>	$\frac{(O - E)^2}{E}$
11	12	-1	1	0.083
15	15	0	0	0
15	14	1	1	0.071
45	44	1	1	0.023
57	57	0	0	0
50	51	-1	1	0.020
<b>TOTAL</b>				<b>0.197</b>

**Table No. 4.10.2.2: Chi calculated 2**

$$\text{Chi Square} = \sum \frac{(O - E)^2}{E} = 0.197$$

E

Number of degrees of freedom =  $(r - 1)(c - 1) = 2 \times 1 = 2$

For two degrees of freedom at 5% significant the critical value for Chi Square = 5.991

The calculate value for  $\chi^2$  (0.197) is less than the critical value and hence our null hypothesis may be accepted at 5% level of significant. We therefore conclude there is no significant difference in the attitude of existence of health and safety programs in the private hospitals Mombasa Island.

### 4.10.3: Hypothesis testing 3

The 3<sup>rd</sup> hypothesis tested was on working environment and Ergonomics.

Ho: there is no relationship between the opinion about the environment in the different private hospitals in Mombasa Island

Hi: there is relationship between the opinion about the environment in the different private hospitals in Mombasa Island.

The data obtained from the questionnaire on the above subject was tabulated below:-

OPINION	ACTUAL FREQUENCIES			TOTAL	PERCENTAGE
	Pandya	Aga Khan	Mombasa		
Not affected	20	50	30	100	52
Affected	23	35	35	93	48
TOTAL	43	85	65	193	100

**4.10.3.0: Opinion from staff about the environment and ergonomics and whether it affects them.**

The information is arranged in 3x2 table as follows:

Attitude	Those who believe it affects	Those who do not believe it affects them	Total
Pandya	20	35	55
Aga Khan	50	23	73
Mombasa	30	35	65
Total	100	93	193

**4.10.3.1: Frequency of opinion on attitude about the environment and ergonomics**

On the basis of that the expected frequencies are as follows:

Attitude	Those who believe it affects	Those who do not believe it affects them	Total
Pandya	$55/193 \times 100 = 28$	$55/193 \times 93 = 27$	55
Aga Khan	$73/193 \times 100 = 38$	$73/193 \times 93 = 35$	73
Mombasa	$65/193 \times 100 = 34$	$65/193 \times 93 = 31$	65
Total	100	93	193

**4.10.3.2: Expected frequency of opinion on attitude about the environment and ergonomics**

Therefore the following table was derived. :

O	E	(O - E)	(O - E) <sup>2</sup>	$\frac{(O - E)^2}{E}$
20	28	-8	64	2.286
50	38	12	144	3.789
30	34	-4	16	0.471
23	27	-4	16	0.593
35	35	0	0	0
35	31	4	16	0.516
<b>TOTAL</b>				<b>7.655</b>

#### 4.10.3.2: Chi Square calculated 3

$$\text{Chi Square} = \sum \frac{(O - E)^2}{E} = 7.655$$

Number of degrees of freedom  $= (r - 1) (c - 1) = 1 \times 2 = 2$

For two degrees of freedom at 5% significant the critical value for Chi Square = 5.991

The calculate value for x is greater than the critical value and hence our hypothesis we reject the null and accept the alternative. We therefore conclude that the environment and ergonomics have effects on health and safety practices in the private hospitals Mombasa Island

#### 4.10.4: Testing Hypothesis 4.

The 4<sup>th</sup> Hypothesis was testing on whether accidents influence health and safety practices

The hypotheses were stated as below:-

Ho: Accidents do not influence health and safety practices in the private hospitals.

Hi: Accidents influence health and safety practices in the private hospitals

OPINION	NO. OF RESPONDENT			Total
	Pandya	Aga Khan	Mombasa	
Those who believe accidents influence	25	40	20	85
Those who do not believe accidents influence	30	33	45	108
TOTAL	55	73	65	193

**Table No. 4.10.4.0: Opinion about accidents.**

Based on the above data the expected frequencies were calculated as follows:

Opinion/Hospitals	Those who believe accidents influence	Those who do not believe in accidents influence	Total
Pandya	$55/193 \times 85 = 24$	$55/193 \times 108 = 31$	55
Aga Khan	$73/193 \times 85 = 32$	$73/193 \times 108 = 41$	73
Mombasa	$65/193 \times 85 = 29$	$65/193 \times 108 = 36$	65
Total	85	108	193

**Table No. 4.10.4.1: The expected frequencies about influence on accidents.**



Therefore:

O	E	(O - E)	(O - E) <sup>2</sup>	$\frac{(O - E)^2}{E}$
25	24	1	1	0.042
40	32	8	64	2.000
20	29	-1	1	0.035
30	31	1	1	0.032
33	41	-8	64	1.561
45	36	9	81	2.250
<b>TOTAL</b>				<b>5.920</b>

Table No. 4.10.4.2: Chi squared calculated 4

$$\text{Chi Square} = \sum \frac{(O - E)^2}{E} = 5.920$$

Number of degrees of freedom  $= (r - 1) (c - 1) = 1 \times 2 = 2$

The calculated value is less than critical value at 5% degrees of significant hence we reject the null hypothesis and accept the alternative. Therefore accidents influence health and safety practices in private hospitals.

## CHAPTER FIVE

### SUMMARY OF FINDINGS, DISCUSSION, CONCLUSION AND RECOMMENDATION

#### 5.1 Introduction

The research was on the evaluation of the Occupational health and safety practices at The private Hospitals in Mombasa Island. to assess their impact on health and safety to the workers well being and also to make appropriate recommendations based on findings. This chapter centers on summarizing the findings, drawing conclusions and making recommendations based on the researchers findings to qualify the significance of the study.

#### 5.2 Summary of findings and Discussion

The findings were based on the objectives set out for the study and were found to be as follows.

- i. On the objective of establishing the extent to which legal requirements regarding health and safety at work influence Occupational safety and health practices at the hospitals it was found out that the majority of the respondents conquer that Health and safety facilities like goggles, protective clothing, overalls gumboots, hand gloves are adequate to cater and protect employees while carrying out their duties. However there is need for the management to insist on using them. It was further observed that the visitors handle patients in wards without any protection
  
- ii. On the objective of establishing to extent to which management of health and safety program and safety committees influence health and safety practices at the private hospitals in Mombasa Island. There is no Health and Safety program in existence in the private Hospitals in Mombasa Island to guide the management of those hospitals in maintaining a Healthy and Safe work environment, and that majority of the respondents do not know the standard of behavior expected of them in health and safety matters

In addition it is evident from the research that the management lack clear strategies and commitment to health and safety. The health of staff and safety of the environment was not viewed on as a matter of outmost importance and the health and safety matters are neither communicated to staff. The hospitals do not have a safety

policy documents issued to all employees or a handbook which includes details of the policy.

- iii. On the objective of the establishing the extent to which working environment influence health and safety practices at the private hospitals, the various factors of ergonomics like lighting, ventilation, housekeeping etc are in normal add safe conditions. There was adequate proper lighting, ventilation and the place was free from noise.
- iv. On the objective of establishing the extent to which health and safety education or awareness influences health and safety practices in the private hospitals, it was evident from the research that all respondents were literate, thus could read and understand the health and safety rules and regulations, and were able to disseminate information on issues relating to health and safety matters. It was further established that the majority of the respondents have not undergone any training on Health and safety matters, either through seminars, courses and workshops and that matters in Health and safety are not either discussed in staff meetings. Safety training spells out the rules and provides information on potential research and how to avoid them.
- v. On the objective of establishing the extent to which accidents influence health and safety practices in private hospitals it was observed that there was No regular inspection on Hospital facilities carried out. No proper records are kept on accidents to describe the nature of accidents. This is aggravated by lack of investigation on the causes of such accidents.

### **5.3 Conclusion**

In the forgoing study the researcher has established that accidents are aggravated by unsafe acts, unsafe work conditions and human conditions. Unsafe acts include the failure of the administration to train staff on issues relating to health and safety as well as inadequate safety devices.

In addition there should be provision and maintenance of systems of work that are so far as is reasonably practicable safe and without risks to health of employees, provision of risk information, instructions, training and supervision is necessary to ensure health and safety of employees.

It should be noted that safety education and training is an important tool to reducing accidents and diseases. This is only possible if the top management is committed and adequate resources are provided to carry out the exercise.

Employees should be responsible to avoid injury to themselves or others and should cooperate with the management in meeting the statutory requirements on health and safety.

Work environment should ensure proper communication channels and working conditions since they have a direct effect on Human behaviour at work place. Reward system, skill development and motivation should be well thought of and planned.

It is important also to improve poor relations and ensure that the management is able to create team spirit that encourages the employees to work safely.

It was further noted that most accidents are caused by various forms of negligence and failure to wear protective clothing or use of devices, lack of concentration. All these amount to poor attitude towards safety. Working safely is habit forming and rapidly develops into group pride in maintaining an accident free work place. Lack of training and experience also may cause accidents

Finally unsafe acts can be reduced through proper selection and placement of employee in safe practices.

#### **5.4 Recommendations**

The researcher, through the findings suggests that it is necessary to make safety training as part of regular schedule in the private Hospitals in Mombasa Island. Continuous training on Health and Safety practices should be conducted and recommendations imparted to employees through seminars, workshops, meetings on the job training for new employees etc. such training programmes should concentrate on pointing out various hazard and risk areas and the importance of wearing protective clothing's and use of safety devices with proper supervision for reinforcement. The supervisor must try to discipline employees into observing safety routines always on a personal protection.

The management should ensure that enough protective equipment, devices and clothing are provided to employees to safeguard against hazard and ill health. The effectiveness of such devices as goggles, hand gloves, boots etc depends upon the employee's good sense and the supervisors' watchfulness. The tendency to discard the protection often occurs; if it hampers the work or if the employee. In other instances people simply forget and inevitably the lapse conceded with an accidents, hence improving safety attitudes hinges upon human relations and the supervisor ability to create team spirit that encourages employees to work safely.

- i. The management should put in place procedures for identifying and eliminating dangerous situations with adequate information on use of tools; equipment should be disseminated to all employees.
- ii. The management should encourage team spirit, delegation of decisions and designs jobs to permit exercise of responsibility for improved health and safety standards and employ a safety representative and create a safety committee.
- iii. Written rules and procedures should be spelt with consistent disciplinary system for all violators.
- iv. The management should ensure its commitment and integration of safety and health concerns in planning. Management commitment to health and safety is a crucial element.
- v. The management should do proper job placement, set standards of health and safety and be able to get feedback through appraised and recognizing their efforts. To do this is should ensure a performance based safely and health policy with dear assignments and responsibility, adequate resources together with employee involvement
- vi. The administration should ensure arrangements are made to plan, organize, control, monitor and review protective and preventive measures at work. Annual or periodic evaluation of safety and health programs, corrective action plans and verification procedures should be put in place.
- vii. The management should establish a well maintained structure of responsibilities for safety and health matters throughout the hospital premises.
- viii. The management should provide appropriate training for employees both on recruitment and when risk change.

In an nutshell the study has suggested improvement on the existing Occupational health and safety programmes in place at The Private Hospitals in Mombasa Island, hence with the recommendations, it is hoped that it will assist the management of those hospitals.

### **5.5 Suggested areas for further research**

The researcher further recommends that are risk assessments be carried out in all the private hospitals so as to identify hazards and analyze the risks attached to them. In addition a similar research be carried out in all government aided Hospitals.

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APPENDIX 2

Questionnaire

Please fill in the information in the space provided

DEPARTMENT                      SECTION                      DESIGNATION  
\_\_\_\_\_

1. PERSONAL PARTICULARS

a. NAME.....

b. GENDER:    MALE                         FEMALE  

c. AGE (Tick as appropriate)

18 – 25	
26 – 30	
31 – 35	
36 - 40	
41 – 45	
46 – 50	
51 55	

d. Date of appointment .....

e. Marital status:    Single      Married      Others  

f. Education level:    Primary (1)      Secondary (2)  

   University (3)      Others (4)  

g. If No. 4, please specify

.....

2. Briefly state the duties and responsibilities assigned to you



.....  
3. Among the tasks you handle, which one do you consider harmful and risky?  
.....

4. (a) If risky, are you provided with protective equipment / devices?

Yes  No

(b) If yes, are they adequate?

(c) If No, what suggestion can you make?  
.....

5. How would you describe your working environment? (Tick as appropriate)

Normal

Safe

Hot

Fumed

Hazardous

6. Do you suffer from any work fatigue?

Yes  No

7. Is there a Health and Safety policy / program in your institution?

Yes  No

8. a) Are there rules and regulations on health and safety practice at work place  
communicated to you?

Yes  No

b) If yes, how are they communicated to you?

Always  Occasionally  None

c) Explain how they are communicated to you.  
.....

9. a) Does the institution have health and safety committees?

Yes  No

b) If yes, who are the members?

.....

10. a) Have you attended a health and safety training course or seminar?

Yes  No

b) If yes, briefly state the contents of the training

.....

11. Is the hospital administrator committed to health and safety of the staff?

Yes  No

12. Briefly explain how health and safety matters are handled in your institution?

.....

.....

13. How many incidents have you come across your place of work?

.....

14. Are you provided with a medical cover by health organization?

Yes  No

15. What role do you play in health and safety matters?

.....

16. a) Has the administrators provided any welfare facilities for members of staff?

Yes  No

b) If yes, state which ones

.....

### APPENDIX 3

#### **Interview guide for the administrators and department heads**

1. Now that you have staff and patients, what health and safety measures have you put in place?
2. How often do you discuss health and safety issues with your staff?
3. Do you have a health and safety policy in place?
4. What procedures and programs on health and safety have you put in place?
5. Do you organize training in health and safety measures for your staff?
6. Do you have a committee dealing with health and safety of the employees?
7. What are the health benefits provided to employees?
8. Which criteria do you use to communicate health and safety matters to staff?
9. What role do you play in health and safety procedure within the institution?
10. What are some of the limitations you face in implementing the health and safety program for staff under you?
11. What suggestion do you have to improve the existing health and safety of staff?

## APPENDIX 4

### Observation Guide

The researcher intends to observe the following variables to guide carrying out the study

Variables	Remarks
1. Prohibitive precautionary measure a. health and safety notices b. Warning signs c. Propaganda campaigns like posters, safety and suggestion boxes d. Accident reports	
2. Procedures a. Protective measures in place b. X-ray procedures c. Hospital waste disposal d. Handling of patients	
3. Working environment a. Ventilation b. Sanitary conditions c. House keeping standards d. Lighting e. Cleanliness f. Floor g. Fumes	UNIVERSITY OF NAIROBI LIBRARY Box 30197 NAIROBI
4. Condition of plants, tools and equipment	

<ul style="list-style-type: none"> <li>a. Adequate</li> <li>b. Defective</li> <li>c. In built safety</li> <li>d. Types of protective equipment / Tools and clothing</li> </ul>	
<ul style="list-style-type: none"> <li>5. Welfare</li> <li>a. Canteen</li> <li>b. Security devices</li> <li>c. First aid</li> </ul>	
<ul style="list-style-type: none"> <li>6. Working conditions</li> <li>a. Shift working hours</li> <li>b. Flexible working hours</li> <li>c. Fixed working hours</li> </ul>	