The Nature of Occupational Health Services for Employees in Selected Public Health Facilities in Gauteng Province, South Africa.

A research report submitted to the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg in partial fulfilment of the requirements for the degree:

Master of Science in Nursing (Occupational Health Nursing)

by

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Declaration

I, Kim Pretorius, student Number: 754108, declare that the dissertation “The Nature of occupational health services for employees in selected public health facilities in Gauteng Province, South Africa.” is my original work and that it has not been submitted before for any degree or examination at any other institution. All sources used or quoted have been acknowledged by means of complete reference in the text and bibliography.

Signature …… Date…….

Dedication

This report is dedicated to all those who supported and encouraged me in the realisation of this Degree.

I would especially like to dedicate this work to my children: Aidan, Arryn and Ashlyn, who encouraged me and accepted many evenings and weekends without my attention so I could attend to the studies. I love you and appreciate your understanding.

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Abstract

Background: Literature suggests that, internationally and nationally, insufficient priority is given to Occupational Health and Safety (OHS) for healthcare workers in public health institutions. This is accompanied by a generalised lack of clear accountability for OHS. Anecdotal evidence on OHS in public healthcare institutions in the Republic of South Africa (RSA) suggests this is no different, with the bare minimum of services being offered in most facilities. Few studies have been completed in on this subject in RSA. If the status of Occupational Health service provision is unknown, there will continue to be a lack of prioritisation of OHS, and minimal accountability for poor performance with the continued neglect of the healthcare worker in these institutions.

Purpose and objectives: The purpose of this research study was to explore and describe the nature, range and extent of occupational health services (OHS) offered to employees in selected public health facilities in Gauteng, and to assess the extent to which the services meet the National Department of Health (NDoH) Guidelines for an Occupational Health Services in the Healthcare Setting. The overall objectives of the study were to explore and describe the nature, range and extent of OH services at the public hospitals and CHCs as regards the level of compliance with the nine recommended components of an occupational health service, as described in the NDoH Guidelines, and to explore and describe opportunities and constraints in the delivery of a comprehensive OH service as described in the NDoH Guidelines.

Research methodology: The research design utilized for this study was a cross sectional, exploratory and descriptive study, using a researcher-administered, semi-structured questionnaire, which was used as a guide for an interview process. The method of analysis chosen for the current study was Mayring's Content Analysis, which makes provision for the inclusion of quantitative and qualitative factors.

Findings: The overall outcomes of the research indicated that compliance to all nine components of the NDoH guideline was poor among all hospitals and CHCs

in the study. The constraints and opportunities were discussed, with overriding findings being problems with a lack of OHS policy and guidelines, lack of budget for OH, inadequate management of OH services, lack of education and dissemination of required knowledge, poor governance and strategic planning, lack of qualified personnel and a general disinterest in OH from the top health authority down to facility level. The hospitals were more compliant and enjoyed a wider range of services than the CHCs.

Conclusions: The information obtained from the findings show that all aspects of OHS for healthcare workers in the public health facilities in this study are neglected. The findings may be used to improve organisational policies and practices to address and improve the occupational health and safety services offered to employees in the high risk public healthcare institutions.

Key Concepts: Occupational Health, Safety, Public Hospitals, Community Health Centres, Healthcare Workers.

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Chapter 1 Orientation to the Study

1.1 Introduction

This chapter provides an orientation to the study that investigated the level of occupational health (OH) provided to healthcare workers in the public healthcare system in South Africa (SA) using a comprehensive OH framework to guide the study.

The health system in South Africa consists of public hospitals, government and local authority/municipal clinics and the private sector. Those who are members of a private medical aid scheme generally make use of the private sector, whilst people from low income groups and the unemployed use the public facilities. This study is based in the public hospitals and community health centres in a district of the Gauteng Province of South Africa.

The National Department of Health (NDoH, 2003) published a guideline booklet "Occupational Health Services for Health Care Workers in the National Health Service of South Africa" that was used as the framework for the study. It suggests nine components that should be in the OH program offered to employees in its healthcare institutions. The components are: promotion of wellness, prevention of occupational injuries and diseases, a clinical occupational hygiene consultation, consultation services, administration, research, special programs, clinical services and an Employee Assistance Program (EAP).

1.2 Background to the Study

The Constitution of the Republic of South Africa (RSA) Act 108 of 1996 as amended, underpins all laws in the country. Chapter 3 (29) states: "Every person shall have the right to an environment which is not detrimental to his or her health or well-being" (RSA, 1993). This includes the right to a safe working environment, which is necessary to prevent accidents and to prevent workers from contracting occupational diseases.

In terms of the Bill of Rights (Chapter 2 of the Constitution) No. 108 of 1996, every citizen of South Africa (SA) is guaranteed the right to an environment that will not damage, compromise or undermine his/her health or wellbeing. The state must respect, protect, promote and fulfil the rights stated in the Bill of Rights.

The first legal document that specifically spelled out workers' rights and the development of OH services in post-apartheid South Africa was the Reconstruction and Development Program (RDP). This policy framework states: "Occupational Health services must be greatly expanded and legislation to protect the health of workers must be enforced. …Workers must have a say in the application of laws, through their health and safety committees. Workers should be given check-ups for major diseases in the workplace. Penalties for violation of occupational health standards must be stricter. Laws must conform to International Labour Organization (ILO) standards and other international standards, and unions and state agencies must be empowered to monitor and enforce safety and health standards" (ANC, 1994).

In South Africa, the specific legislation that guides OH service provision is the Occupational Health and Safety Act (OHS) (No. 85 of 1993) as amended. It is concerned with the impact of the workplace on the physical, emotional and psychological health and wellbeing of employees. The Act states that employers must provide a safe working environment that is without risk to the health of employees.

The National Health Act (No. 61 of 2003) as amended is more specific to the requirements for different institutions and sets out the rights and duties of health care providers, health care workers, health establishments and users. It also makes provincial departments of health responsible for OH services. The Gauteng Provincial Department, under whose jurisdiction the Ekurhuleni Health Districts falls, has the responsibility for OH service provision in the facilities where this study was conducted.

The researcher completed her nursing training in the public sector and, once qualified, then found employment in community municipal clinics. She did not

receive any health screening or occupational health care in either of these sectors, so was interested to see if there had been changes to the level of OH care offered to employees from then to the research conducted in 2015/2016. This is the question that led to the formulation of this research study.

Research and literature suggests that some changes have occurred during the last two decades but that OH services are still inadequate and may not be compliant with legislative requirements. The NDoH guideline document for OH services, which guided this research study, advises on and discusses components that should be included in an OH program in public health facilities. Therefore, this study provides an insight for stakeholders, such as the Department of Health (DOH), Gauteng Provincial Health department, local municipalities, hospital managers etc., into the level of compliance and guide corrective action.

The precedent has been set for a quality OH service within the National Health Service (NHS) in the United Kingdom (UK). The Avon Partnership Occupational Health Service, which provides OH services to 3 hospital sites with +/- 18 000 employees in the Bristol area, was used as an example. The service is contracted to the NHS and simultaneously to external organisations for income generation. The hospitals offer a separate health and safety department, a manual handling training department, physiotherapist, psychologist, clinical nurse doing vaccinations and bloods, OH advisors, Occupational Health Medical Practitioners (OHMPs) and Consultant OHMPs in the facilities. One of the facilities is smaller, with decreased access to the services on site, but they can access the services at the larger sites.

All potential employees have to fill in a health screen form, which serves as a pre-employment screen, and have to be cleared by the department before an offer of employment is issued. All rotating Doctors and employees exposed to patients and body fluids have to provide a record of vaccination or attend the department for screening and vaccination as indicated. These employees either attend with or are given a smart card with all their relevant data and vaccinations on it. Employees are recalled annually if indicated for screening, for example, lung function tests for theatre staff, and staff are recalled every five years for blood

screening for immunity. A 24-hour needle stick hotline is available with the Consultant on call doing the screening and going to the department to issue Post Exposure Prophylaxis (PEP), as required. Training is given to new employees, on induction, regarding services offered by OH and safety.

The burden of disease in SA, including HIV/AIDS, TB, sexually transmitted infections, communicable and non-communicable diseases, places a heavy burden on the people expected to look after the health of the nation. The question needs to be asked – who is looking after the health of those expected to look after the health of the nation, and is it adequate to keep them safe and healthy in their place of employment?

1.3 Purpose of the Study

To explore and describe the nature of OH services in selected public hospitals/community health centres (CHCs) in Gauteng and to assess the extent to which the services meet the NDoH Guidelines for an Occupational Health Service in the Healthcare Setting.

1.4 Significance of the Study

The significance of and rationale behind this study is that very limited research has been done nationally and internationally as regards comprehensive OH in the public healthcare setting, with a large number of studies focusing on HIV/AIDS (Shisana, Maluleke, Chauveau and Schwabe, 2004), needle stick injuries (Lekgothoane, 2012) and Hepatitis B (Rossouw, van Rooyen, Louw and Richter, 2014). Only two studies in SA could be found where comprehensive OH services themselves are studied: Bachmann and Moodley (2002), and a joint research study between the South African Municipal Workers Union (SAMWU) and the Municipal Services Project (MSP) (MSP, 2005). However, even these did not include all services. OH incorporates aspects such as HIV/AIDS, psychological factors and Hepatitis, but is not limited to them hence the need for the current research study.

1.5 Research Problem

The nature of OH services for employees in public health care institutions in Gauteng is not well described. If the health and safety needs of employees are not met, their personal work lives may be compromised. Anecdotal evidence indicates that public hospitals and/or CHCs in South Africa are not meeting the legal requirements or best practice guidelines for OH service delivery to workers in all categories of risk and occupations within the hospital/clinic structure.

Knowledge of the quality of existing OH services is needed in order to address issues that may be compromising the health and safety of those employed in healthcare institutions, and thereby improve the quality of care in the healthcare institutions.

1.6 Research Questions

The study was guided by the following research question:

What is the nature, range and extent of compliance of OH services with the NDoH's Guidelines for Occupational Health Services in the Healthcare Setting in selected public hospitals and CHCs in Gauteng?

1.7 Research Objectives

- To explore and describe the nature, range and extent of OH services at the public hospitals and CHCs as regards the level of compliance with the nine recommended components of an occupational health service as described in the NDoH Guidelines.
- To explore and describe opportunities and constraints in the delivery of a comprehensive OH service as described in the NDoH Guidelines.

1.8 Clarification of Concepts

Occupational health (OH) - Occupational health is the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations by preventing departures from health, controlling risks and the adaptation of work to people, and people to their jobs (ILO/WHO, 1950).

Occupational safety – Safety comprises of all measures and methods utilised in a workplace to prevent and mitigate accidents, personal injuries and accidental damage. Workers must be made aware of hazards in their workplaces that may cause harm and occupational disease (Acutt and Hattingh, 2011). Safety goes hand in hand with OH in the protection of workers and is collectively known as occupational health and safety (OHS).

Public hospital - A public hospital is a hospital falling under the jurisdiction of the State.

Community health centre (CHC) - Primary care facility in the community providing comprehensive services including promotive, preventative, rehabilitative and curative care and with a 24-hour casualty and maternity service (ANC, 1994:online)

Healthcare workers – Includes the following workers: professional workers such as doctors, nurses, radiographers, physiotherapists, pharmacists etc.; technicians and administrators; other service categories such as nurse assistants, porters, cleaners, gardeners, ambulance drivers.

1.9 Summary

Chapter one presented an introduction and background to the research and provided an explanation to the rationale behind and the motivations for the study. The purpose and objectives of the study, together with the research questions, were clarified. The following chapter presents the literature review performed by the researcher and provides a frame for the study.

Chapter 2 Literature Review

2.1 Introduction

This Chapter contains two distinct review areas. Firstly, the sources of literature, including international, national and provincial policies, related to the provision of occupational health and the role of the nurse in occupational health have been reviewed to provide context to this study. Secondly, peer reviewed literature to acquire an understanding of the issues relating to the provision, or, often, the lack of provision of occupational health services.

2.2 Policy Guidelines Relating to Occupational Health

In recent times, there has been a paradigm shift from OH being purely preventative and focusing on the prevention of injury to a focus on preventing disease and the promotion of health. The shift also includes diseases not caused by the workplace, such as lifestyle diseases like diabetes and hypertension, which can have serious consequences within the workplace. The World Health Organization's (WHO's) Healthy Workplace Framework and Model (WHO, 2010) combines health protection and health promotion in a framework for action involving the physical work environment, psychosocial work environment, personal health and community involvement.

The International Labour Organization (ILO, 2014) has followed a similar route, suggesting a shift from purely focusing on the health of the worker as it pertains to his workplace, to a focus that includes his family and community, as these affect his health and, by proxy, how he functions in his workplace. The ILO program/training package - SOLVE - focuses on health promotion and well-being at work, and includes policy guidance and programs to address factors such as the prevention of violence and drug and alcohol consumption in the workplace, which contribute to accidents, injuries and ill health in the workplace. The program aims to provide guidance as regards integrating workplace health promotion into OH and Safety (OHS) policies and programs in an enterprise (ILO, 2014).

The NDoH's Guideline booklet for occupational health services for healthcare workers, which guides the research in this study, takes cognisance of this approach in that it includes factors such as Employee Assistance Programs (EAPs) and the provision of clinics for staff that offer chronic disease screening, monitoring and treatment and stress management (NDoH, 2003).

The South African Nursing Council (SANC) (2013) has developed a document detailing the role of the occupational health nurse, and justifies its position by stating the aims of occupational health which, the SANC states are: "creating a healthy and safe working environment and a functional working community; preventing work-related diseases and accidents; and promoting the working ability of individuals and work populations."

There is no reference in the SANC's statement, or that of the NDoH's Guideline, to community outreach, and neither focuses on the family, which is specified by the WHO and the ILO.

2.2.1 NDoH's Guideline Booklet for OH Services for Healthcare Workers in the National Health Service of South Africa (NDoH, 2003)

As this guide forms the basis of, and the focus for, this research study, the guidelines are given in some detail. Its content, relating to a comprehensive occupational health service, was used in the formulation of the semi-structured interview questionnaire that was used to determine the status of occupational health services in public health institutions in this study. The nine components are described in this section.

2.2.1.1 Promotion of wellness

Included in this component are elements such as employee health and medical surveillance, biological monitoring, epidemiological surveillance, immunisation programs, correct placements in jobs, rehabilitation and disability management, EAPs, counselling, HIV/AIDS in the workplace, health education and promotion, and reducing sickness absence.

2.2.1.2 Prevention of occupational injuries and disease

This component seeks to identify and monitor risks in the workplace with the aim of preventing occupational injury and disease and monitoring personal protection methods such as immunisation. Guidance is also included on first aid and disaster management in the workplace.

2.2.1.3 Occupational hygiene

There must be a program of identification and evaluation of the full spectrum of hazards with recommendations for control.

2.2.1.4 Consultation services

OH services act as consultants to persons in the workplace as regards OH matters. There should be an interactive collaboration between OH, management, unions, OH and safety committees and worker representatives.

2.2.1.5 Administration

This includes policy and procedure manuals, standing directives and protocols, risk assessment, statutory medical records such as radiation medicals, worker records such as sickness absence, information management systems and relevant research documents.

2.2.1.6 Research

Nursing and medicine, including OH, is seen as based on scientific methods and findings, and practice should be evidenced based. Identifying areas for research in OH, participating in research and implementing resulting recommendations are included as elements.

2.2.1.7 Special programs

This refers to programs such as HIV/AIDS, TB and lifestyle factors that require on-going special attention due to their contribution to mortality and morbidity rates.

2.2.1.8 Clinical services

Workers should have access to services such as primary healthcare (PHC), emergency medical care, occupational injury and disease management, and monitoring of chronic disease conditions.

2.2.1.9 Employee Assistance Programs (EAPs)

This component deals with guidance and expectations with regard to stress management in the workplace. Counselling services should be available and training on stress awareness and coping strategies should be available, and if not available then there should be a referral system.

2.3 Functions of Occupational Health Professionals

The aims and functions of an OH service are affected by health professionals who have been specifically trained to promote and protect the health of workers and their work environment and to maintain organisational health. These are enabled by providing OH services to employees and providing knowledge and advice to the employer on achieving the highest standards of OH and safety together with legal compliance within the workplace. Employers are responsible and are held liable for providing OH programs and ensuring the safety of workers. It is the responsibility of a workplace to ensure that its risk based OH service is encompassed in a policy document that determines the remit of services required in its specific workplace to ensure it is observant and compliant with legislative requirements.

According to Acutt and Hatting (2011:17), the disciplines and sciences that contribute to the science of occupational health are occupational medicine, occupational health nursing and occupational hygiene. The representatives of these disciplines work together in a multi -disciplinary capacity to cover the full remit of OHS. A brief description of each of these disciplines follows.

2.3.1 Occupational medicine

John Meyer, editor of the journal “Occupational Medicine”, reminds his readers (Meyer, 2014) of the importance of understanding how and why the workplace has

changed, as a failure to recognise the changes will mean that it is not possible to provide adequate occupational medical services. He describes how, among other changes that have taken place, groups that were previously excluded from occupational services, because they were not considered to be part of a productive workforce, are now being included. This has essentially changed the focus of occupational medicine. If this is indeed the case, Acutt and Hattingh's definition of occupational medicine (2011:24-25) is already out of date. They state that occupational medicine includes epidemiology, toxicology, statistics and emergency medicine, which is clearly true, but it is much broader than this. As far back as 1973, Schilling (1973) made the distinction between 'occupational medicine' and 'occupational hygiene'. He contends that 'occupational health' is made up of those two disciplines and says that nurses have a role in the multi-disciplinary team providing occupational health. A posting on the University of Cape Town's (UCT; s) School of Public health's website quotes Jeebhay as saying that "...occupational medicine is the branch of medicine concerned with the study, diagnosis, treatment and prevention of disease and ill-health attributable to work" (Jeebhay, undated).

In South Africa occupational medicine is viewed as a speciality; qualified medical practitioners are required to complete a two-year Diploma in Occupational Health and are required to register this additional qualification with the South African Health Professionals Council before they can practise in this capacity.

2.3.2 Occupational health nursing

An Occupational Health Nursing Practitioner (OHNP) or Occupational Health Nurse (OHN) is a person with a post-basic qualification in occupational health nursing. Once qualified, this specialist nurse registers her speciality with the South African Nursing Council (SANC). An OHNP functions independently and autonomously in the workplace in the prevention of illness and injury, reducing hazards and in the promotion of health on behalf of the employer and employee (Rogers, 1994:34-35).

The SANC (2013) states that the occupational health nurse (OHN) “focuses on the relationship between work, the work environment and the worker’s health, with the aim of improving, protecting and restoring the health of the worker.” In a more detailed list of competencies the SANC specifies, inter alia, that the OHNs should assess the health status of workers, and have a particularly important role in doing this for workers entering the workplace for the first time to determine whether they are suitable for the work to which they are allocated or not. The OHN is responsible for health promotion and prevention of ill-health, assessing, diagnosing common diseases and planning health care for individuals and groups within the workplace. Being on site most of the time, the OHN is also responsible for safety issues and the management of emergencies and injuries to employees/healthcare workers.

2.3.3 Occupational hygiene

As discussed by Acutt and Hattingh (2011:147–148), occupational hygiene is concerned with safety in the workplace/environment through workplace surveillance, measuring, identifying and quantifying hazards, and in the measurement of occupational exposure limits. Occupational hygienists must register their university qualification with the Department of Labour (DOL) before being allowed to practice.

2.4 Objectives of an Occupational Health Service

Each company/employer, according to the Occupational Health and Safety Act No. 85 of 1993 (RSA, 1993) as amended, should be responsible for the health and safety of its workers while at work, and workers have to accept responsibility for their own health and safety in the workplace by complying with those measures that the employer has in place to protect them. All reasonably practicable measures to safeguard the health, safety and well-being of workers in the workplace must be taken.

Per Rantanen (1990), as cited by Acutt and Hattingh (2011:21), the objectives of OH services should include protection, prevention, health promotion, primary

healthcare, and curative and rehabilitative principles, as specified in the ILO guidelines.

According to the ILO Occupational Health Services Recommendations 1985 (No. 171) (and accepted by the WHO), the functions that include all the elements of a comprehensive OH service are briefly: orientation to and surveillance of the workplace with its specific hazards and risks, followed by communication to those responsible for preventive and control measures including workers; assessment of risk to health; worker medical surveillance based on the risk; provision of advice on prevention and control measures for risks; first aid services and emergency preparedness; preventative and curative health services; health promotion and education. SA is a member state of the WHO and therefore subscribes to the ILO recommendations; this should be used by employers to guide their policies and procedures as regards their workplace OH service provision.

The NDoH used the ILO guidelines as regards the objectives, functions and activities of an occupational health service to formulate its Guideline booklet on occupational health services for healthcare workers.

2.4.1 Perspectives of the WHO and the ILO on Occupational Health

The WHO and the ILO work closely together in providing guidance about OHS matters in international fora. South Africa is a member state and therefore uses WHO/ILO guidelines to guide their own national policy formulation.

According to the WHO (undated), there are over 59 million workers in healthcare settings who are exposed to a multitude of hazards during their daily work, but because their work incorporates working with the sick they are seen as “immune” to the health risks in their environment, and the patients’ health status is seen as more important than their own. The flip side to this approach is that, in caring for and protecting the health of the healthcare worker, the quality of patient care is improved and health systems are improved, for example, less sickness absence and the retention of qualified, knowledgeable workers.

The World Health Organization (WHO) has published several documents, guidelines and safety procedure recommendations about the risks that are faced by workers and how to minimize the risks to which they are exposed. The WHO's (2007) present plan of action: '*Global Plan of Action on Workers' Health 2008-* 2017' is a comprehensive document that describes many aspects as pertains to worker health, which includes health promotion and protection in the workplace, improving health systems response to the health of workers and their employment conditions, and occupational hazard prevention. A common principle throughout this document is that the physical and mental health and well-being of workers should not be affected by the workplace. When countries are strategizing for and developing national policies on the health of workers the focus of the objectives should be the promotion and protection of health.

The assessment and management of health risks in the workplace should be improved by defining interventions for the prevention and control of mechanical, ergonomic, physical, chemical, biological and psychosocial risks in the work environment. Systems for surveillance of workers' health should be designed with the objective of identifying and controlling such occupational hazards accurately (WHO, 2007:5-6). These processes should be formalised in policy and procedure guidelines, with adequate dissemination to employees through measures such as training at induction, manuals that discuss OHS in general and with specific guidelines for various work units. There should also be an evaluation system in place to determine compliance with said policies and procedure guidelines.

The WHO works collaboratively with the ILO on issues pertaining to and guidance on OHS. The European Office of the WHO (2007) published a Declaration on Workers' Health in 2006; this was followed by the 'Workers' health: global plan of action' (GPA) at the World Health Assembly. Per Lethbridge (2008:5), this provides an important framework as regards international OHS policy. SA, as a member state of the WHO, is expected to take cognisance of ILO strategies and use these "guidelines" in formulation and ratification of its own national occupational health and safety policies and guidelines.

As discussed by Wilburn (2010), the purpose of the WHO's GPA, which directs the Global Framework for National Occupational Health Programs for Health Workers is to, inter alia, focus on health systems' strengthening through improving the safety and health of healthcare workers and, by proxy, patients, and by providing quality health care, thereby supporting a healthy community.

A central function of the ILO, in its advisory capacity, is to provide guidance and recommendations to national governments in the formulation and implementation of national OHS policy, through various published instruments for use by member states. Various levels of obligations are defined and member states can implement these instruments once a process of ratification has been completed. The instruments, in the form of conventions, protocols, recommendations and Codes of Practice, advise on OHS policies and service provision, labour inspections, occupational disease notification and specific hazards. A 'Global Strategy on Occupational Safety and Health' was adopted in 2003 by the ILO. It focuses on a "systems" approach to the management of OHS and building a national preventative culture as regards OHS. The ILO OHS strategy aims to create a global culture of good practice in OHS. A culture where the climate in the workplace fosters trust between management and workers so that occupational safety matters and health problems - potential or actual - can be openly, and without threat, reported and addressed (Lethbridge, 2008:3–5, 19). Without this, OHS strategies in the workplace will not be successful as there will not be buy-in from all parties as regards formulation and implementation of said strategies/programs, with both worker and industry potentially developing a culture of blame rather than prevention and resolution.

A situational analysis by the WHO, in 5 African countries in 2007 as well as a survey in 2009 on policy practices in 17 countries covering all WHO regions (including South Africa), shows considerable gaps in the implementation of policies, especially with respect to health workers' entitlements, rights and access to care. Good policies and recommendations exist at national level, but they do not always filter down to facility level because of lack of information and resources for implementation (WHO – GOHNET, 2010:7).

Moyo et al. (2015), who reviewed the occupational health and safety provision in Southern African countries, including South Africa, agree that full adoption of the many policies which should facilitate the provision of these services remains constrained, both in the private and the public sector.

2.4.2 Perspectives of Other International Organisations and Stakeholders on OHS in the Healthcare Sector

A fact sheet issued online by the European Agency for Safety and Health at Work, regarding good practice in safety and health for the healthcare sector, states that the health and welfare sector employs approximately 10% of workers in the European Union (EU), with the large majority being employed in the hospital sector and, on average, around 77% of employees are classified as female. A further finding from the European data indicates that the work-related accident rate in the healthcare sector is 34% higher than the EU average, with the high prevalence of musculoskeletal disorders second only to the construction industry. Health problems and the main risk factors in this sector were listed and included biological and chemical risk factors, radiological hazards, shift and night work, patient violence, stress and accidents at work such as falls and needle punctures. This is relevant to all employees employed in the healthcare setting and not just to those directly involved in patient care. It is well documented that these risks are prevalent in healthcare settings worldwide and hence relevant to this study.

Established in 2007, the Center for Work, Health and Wellbeing at the Harvard T.H. Chan School of Public Health is funded by the US Centers for Disease Control and Prevention's National Institute for Occupational Safety and Health (NIOSH) as part of the Total Worker Health (TWH) initiative. The TWH initiative is a new approach for NIOSH in response to a growing body of research evidence linking the work environment with health outcomes. Their traditional approach was to focus on occupational injuries and illnesses. The focus has now shifted to the identification of policies and programs that are inclusive of protection from hazards, with promotion of illness and injury prevention. This tallies with a worldwide shift of focus to promotion of wellness at work to prevent illness and

injury resulting from the workplace and should guide future practice (Harvard, 2016).

In the Victorian Auditor-General's Report of the audit done to determine occupational health and safety risk in public hospitals in Victoria, Australia, it is recognised that there is insufficient priority and accountability for OHS in public hospitals, and that hospital management and staff are not fully informed of occupational health and safety risks. There is insufficient priority given to and accountability for OHS in public hospitals. Staff safety needs to be given a higher priority by senior management, and managers within public hospitals should be held to account for the OHS performance of areas under their control. Sustained improvement in the public hospital safety culture is not likely to occur without greater priority and clear accountability (Victoria Auditor-General, 2013). Anecdotal evidence regarding OHS in public healthcare institutions in SA seems to suggest a lack of accountability and knowledge of OHS requirements, with the bare minimum of services being offered in most facilities, similar to the study findings in Victoria.

Further findings in the Victorian Auditor General's Report state that there are several indicators that together purport to suggest that public hospitals do not give priority to OHS. There is a culture of acceptance of OHS risk, with insufficient resources and information provided to employees to facilitate compliance with OHS policy and procedures and safe work practices. There is a lack of accountability in that the health department in Victoria, as manager of the health system, does not require public hospital management to provide assurance that employees are adequately protected from OHS risk (Victoria Auditor-General, 2013). The researcher has found in her experience that this is the scenario in the public and private healthcare systems in SA, although minimal research is available that reports on this; hence the need for this research study to investigate and raise awareness of the status of OHS in public health facilities.

A research study done in 14 district, regional and referral hospitals in Tanzania (N= 430), to determine the status of OHS and to identify key areas for intervention, evidenced similar findings to the Victorian Auditor-General's audit report in that

OHS was found to be inadequate in most Tanzanian hospitals, with a lack of OHS qualified personnel in all hospitals. The major source of OHS information dissemination was in the form of seminars and workshops. Recommendations for improvement were based on training and the creation of awareness (Eliakimu et al., 2008). The researcher believes there should rather be a focus on placing qualified OHS staff in hospitals, who would have sufficient knowledge and expertise to ensure policies and procedures are in place as well as the ability to oversee programs and provide training.

In a cross-sectional research study, involving two hundred respondents working across eight hospitals in Kampala, Uganda, to determine health hazards faced by healthcare workers, occupational hazards were reported to be experienced by 50.0% of respondents. Biological hazards were experienced by 39.5% and non-biological hazards by 31.5%. Exposure to these hazards was attributed to non-compliance with wearing the necessary personal protective equipment (PPE), work pressures and overtime and working across facilities. Recommendations included mitigation of hazards. Only 53.5% of health facilities provided PPE, while 97% of healthcare workers had undergone HIV screening with 91% having received a BCG vaccination against TB (Ndejjo et al., 2015).

A study conducted in public health facilities among healthcare workers (HCWs) in southern India, to determine the prevalence and perception of hazards that were work related, found that despite a high prevalence of hazards, knowledge about them was limited with health hazards failing to be recognized by more than a third of HCWs. The serious nature of occupational exposures and their implications for health and safety were not recognised either (Senthill et al., 2015). The interesting factor to determine and/or discuss here would be to ascertain if this can be attributed to the workers' non-compliance or the employer that has failed to educate its workers adequately in the form of guidelines and programs or if these exist to enforce compliance?

Every workplace should have an adequate management structure, with clear guidance for leadership functions, with various departments in the organisation working in synergy as a system to ensure efficient functioning. A study conducted

in Malaysia, measuring the perception of hospital staff nurses, employed by the Sabah State Health Department, regarding safety satisfaction and feedback on OHS management, states that effective OHS practice is ensured by competent leaders with the necessary supervisory skills. It also states that staff competency could be improved by providing training in OHS practice. To encourage the reporting of injuries, a reporting system should exist together with clear rules regarding safety (Cheah et al., 2012). These findings are relevant to all industries, not just healthcare, to improve the efficacy of the OHS aspect of a business and cannot be seen in isolation to other functions of an organisation.

OH services can be provided in-house – within the actual business unit – or outsourced to an external provider who may provide fee-for-service personnel at the business unit or workers may have to leave their own workplace and attend at the site of the external provider. In a study evaluating the OH services within the NHS in the London area, United Kingdom (UK) (N = 17), 88% of trusts claimed to provide and in-house OH service while they all provided some level of service. A trust covers an area with boundaries that includes healthcare institutions and services within the designate area. It was felt by most trusts that they could provide a comprehensive range of services, but 87% of OH managers considered themselves able to provide only a reactive service rather than a proactive one. A written policy was only available in 29% of trusts. The extent of services offered was affected by resource availability and a balance between planned services and reactive service needs, although all in-house departments felt they had the capacity to deliver a fully comprehensive range of services, such as health screening and surveillance, immunisation programs, sickness absence, ill health retirement and rehabilitation and training and education. As with previously mentioned research studies, it seems that once again lack of policy and resources to provide services is a major causative factor where insufficient OHS services exist.

A general problem found in various research documents, across the board, on international and national level, is a lack of policy documents or non-adherence when they do exist. A further problem is that in countries that do have overriding OHS legislation there is no filter down or enforcement of policy in health

institutions. Occupational health information systems are often non-existent or poor at best, and finding qualified occupational health staff seems to be a problem in many instances. Finally, a lack of knowledge on matters pertaining to OHS seems to underpin all or most problems in the public hospital system in many countries. Amukugo, Amakali and Sipa (2015) found very similar findings to the above as causes of poor occupational health in their study on the perceptions of health workers regarding OH services in the Onandjokwe hospital in Namibia. The Namibian study is relevant as it also consulted the NDoH's Guideline booklet that is used as the basis this study. Strong anecdotal evidence exists to suggest that the findings in this study will be similar to the Namibian research study findings.

To understand the state of OHS service provision in the public health sector, those departments tasked with the provision of healthcare should undertake research studies, needs analyses and audits countrywide, to determine gaps and then they can move forward with plans on how to improve services. A countrywide health sector risk assessment was conducted in healthcare institutions in Kenya, where similar results and reasons for lack of compliance with legislation were found as in other studies mentioned in this literature review. In Kenya, there was inadequate enforcement of legislation in most of the healthcare institutions, with financial and material resources for the most part unavailable. There was a lack of a comprehensive OHS program from the Ministry of Health and an insufficient hazard identification system. Minimal OHS training was available for staff. All these factors collectively led to a generalised apathy by workers and management as regards OHS (Wambilianga and Waiganjo, 2013). An OHS service should be based on legislation and hazard and risk identification and guided by policy addressing these. If any of these basic tenants of an OHS program are absent, then there can be no success for the program and/or high levels of compliance.

2.5 Quality of Occupational Health Services in South Africa

The building bricks of good OHS service delivery should be provided for in coherent national policy. Per Alli (2008) and referenced by Neema (2015), national policy is required to lead and guide organisations in the formulation of OHS policies, and there should be a plan to disseminate services and policies to

employees for implementation. Policy should lead to standardisation of services but without dissemination to those to whom they are relevant, a policy becomes a mere piece of paper.

Adams, Morar, Kolbe-Alexander and Jeebhay (2007) stated that although the provision of occupational health services is mandated in the National Health Act No 61 of 2003, as amended (RSA, 2003) - which outlines the duties, rights and responsibilities of all stakeholders in the health system and makes provision for the delivery of occupational health services as a provincial health departmental function – service delivery is not equal in all provinces. In SA this is attributed to such factors as problems with capacity to deliver and lack of financial support, and a lack of health information systems to collect and correlate data generated by provincial level OH service programs. This research study provides evidence in support of the statement of variable OH services at provincial level and evidence that healthcare facilities are still experiencing the same problems ten years later as regards compliance to a healthy and safe workplace.

The World Health Report (WHR) (2006) findings indicate that a major reason that healthcare workers leave their jobs in Africa and Asia is due to the increasing risk of illness caused by occupationally acquired disease and injuries related to occupation and the associated risk. Healthcare workers are seen to have amongst the highest rates of occupation related illness and injury of all work categories. In South Africa, with a high rate of HIV/AIDS, health workers are at the forefront of the risk of workplace exposure. Thus, it would be expected of the NDoH to provide OHS programs to mitigate prevent and/or decrease the risk of its healthcare workers from the exposures they experience in the workplace every time they report for duty. Good OHS services and programs should have a positive effect on retention and the reduction of sickness absence.

Janse van Rensburg et al. (2012), in collaboration with Professor Yassi, a health researcher at the University of British Columbia, Canada, who is helping SA to implement OH guidelines developed by the WHO, in collaboration with the University of the Free State, undertook a large-scale survey of South African healthcare workers in 3 public hospitals in SA in 2012. Preliminary results of the

survey of more than 1000 healthcare workers showed that > 68% of patient care staff had never been screened for TB, nearly 20% had not been vaccinated against Hepatitis B and 55% did not wear respiratory protection when needed, even though SA healthcare workers have a three times greater risk of contracting TB than other South Africans. Further findings of this study indicated serious problems with OHS practice in the hospitals where there was a troubling incidence of occupational injuries and a lack of OHS services, management and worker representatives. There was also evidence that national directives regarding OHS are not filtering down to healthcare institutions, with evidence also suggestive of an absence of hospital focused OHS. Their recommendations included ongoing training as regards OHS in the workplace, screening and ongoing vaccine programs that are hospital based and collaborations between various stakeholders in securing a safe work environment.

The Office of Standards Compliance in South Africa developed the National Core Standards for Health Establishments in South Africa in 2011. This sets the benchmarks for quality care against which services can be monitored. Domain 6, Operational Management, deals with employee wellness requirements/standards, and specifically requires staff health services, and welfare and healthy lifestyle initiatives to be promoted. There is also a requirement to provide effective OHS systems to protect staff from workplace hazards. (NDoH, 2011). Public health facilities in SA are audited against these standards, but detailed reports on these specific issues are not made available. Reports of the findings of the audits, which are made available, are not comprehensive adding to the problem of establishing specific compliance to OHS standards.

The Department of Labour (DOL) in SA also carries out inspections of OHS in the workplace. Inspections conducted in the public healthcare sector show gross levels of non-compliance with the requirements of the Occupational Health and Safety Act (OHSA). According to research, OHS programs add value by improving quality and productivity and minimising workplace deaths, injury or illness. (Ramutloa: 2016). According to Ramutloa (2016), for the period 2014/2015 and 2016/2017, 407 inspections were conducted across all nine provinces in SA and these showed that only 91 of the facilities complied with Section 8 of the OHSA,

which requires every employer to provide, as far as is reasonably practicable, a working environment that is safe and without risk. 316 facilities were not compliant and hence the compliance level was only 22%. In 2014/2015, Gauteng province, within which this study is based, showed only 9% compliance. Some of the worst findings were found in clinics in rural areas. A second inspection was conducted in 2016; Gauteng province had deteriorated further to a compliance rating of 0%.

Per Ruiters, Director for OH and Hygiene at the Department of Labour (as quoted by Ramutloa, 2016), some of the reasons for non-compliance include lack of risk assessments, no training at induction on risk/exposure, effect and control of hazardous biological agents, no medical surveillance and lack of PPE policy and equipment. Because of the poor performance and compliance, the healthcare sector has received instruction from the Chief Inspectorate to prepare a written policy, by April 2017, on the protection of health and safety of employees in the workplace.

Findings in the South African Health Review 2016 point to a lack of accountability, ineffective management, incompetent leadership and a lack of governance, causing a generalised crisis at all levels of the healthcare system. Health service planning is fragmented, with inadequate linkage of programs, poor co-ordination and integration between the NDoH and provincial health departments. Further causes found were a lack of enforcement of compliance to legislative requirements, and capacity constraints. These all have a bearing on OHS programs, or lack of them, within the public healthcare sector and point to possible causes for a lack of programs (Ispeli, 2016).

2.6 Conclusion

The international and national research and literature findings are all, in some form or other, suggestive of the fact that even when good policy and structure exist, government institutions are non-compliant with their own OHS legislative requirements, policies and programs. There seems to be a general apathy as regards comprehensive OHS in the public healthcare system, with fragmentation and differentiation of services and minimal reporting systems.

Legislation, Policies, Guidelines, National Standards and strategies require the health and safety of the worker to be addressed and maintained through implementation of and compliance with the above. When these are not in place, disseminated or educated to the worker then there can be serious implications for workers in all settings.

Chapter 3 Research Methodology

3.1 Introduction

This chapter describes the research methodology used in the study. The research design, population sampling, data collection, data analysis and the ethical considerations underpinning and pertaining to the study are discussed.

The conceptual phase of the research included the identification and definition of the problem statement, the research question and the purpose of the study, and a review of literature, selection and determination of the study design and the specification of the research population.

3.2 Research Design

The research design provides structure to the research and links all elements of the research in such a way that the researcher can plan for the research and determine the best way to approach it.

Research design, according to Mouton (2002), is an exposition of the way in which the researcher plans to execute the formulated research problem. The validity and quality of research findings are maintained through the methodological procedures including planning, structuring and execution of the research design.

Polit and Hungler (1999:155) refer to the research design as the blueprint for conducting a research study whereby maximum control is exercised over variables that may interfere with the validity of research findings. They further postulated in their discussion on research methodology (2004: 233), that methodology refers to the way research data is collected, organised and subsequently analysed, with Burns and Grove (2003:488) taking it a step further and including methodological limitations as a factor in their discussion.

Mouton (2002) is of the opinion that the research design is a set of guidelines/instructions that need to be followed to address the research problem.

Once the research problem is understood and the research questions generated then the chosen method designed to provide answers and insight must be explained in the form of the research design.

The research design utilised for this study was a cross-sectional, exploratory and descriptive study using a researcher-administered semi-structured questionnaire, which was used as a guide for an interview process.

3.2.1 Cross-sectional, exploratory and descriptive method

3.2.1.1 Cross-sectional study

The purpose of cross-sectional studies is often exploratory and/or descriptive. Characteristic of cross-sectional studies is that they are conducted in the present at a specific point, on one occasion and with different participants, to explore and describe that which currently exists as it occurs (Brink, 2006). The current research study explored and described that which the participants were experiencing in their workplaces at the time of the interview. Each facility was seen once hence the study met the criteria for a cross-sectional study.

3.2.1.2 Exploratory and descriptive study

Descriptive designs are often used where the aim of the research is to identify problems and justify current practice (Burns and Grove, 2011; Brink, van der Walt and van Rensburg, 2012), which is relevant to the current study; through the literature review it is understood that problems exist within public health facilities as regards OHS, hence the aim is to explore the nature of these problems and current practice. Exploratory designs aim to explore phenomena to gain insight and understanding.

Exploratory and descriptive studies involve no manipulation of variables and focus on observing and describing a situation as it occurs naturally (Polit & Beck, 2001:192). The research interviews in this study were conducted in the facilities where respondents worked and focused on exploring their perception, description and experience of OHS in their workplace. It is through engagement with participants, in an attempt to gain insight into their experiences that answers to as

many issues as possible are discovered and can be reported on (Cresswell, 2002:185).

A further aim of this type of study design, according to Mouton (2002), is to gather new data and establish “facts” as they exist for the respondents and subsequently search for patterns in the data. This guided the choice of analysis method for the current study – content analysis – where patterns in data are determined and form the basis of findings. In this study, it was unknown what the status of the OH services was, nor the compliance with NDoH Guidelines, hence this design is relevant.

3.3 Research Setting

Data are collected in certain settings or specific places, guided by the research question/s and the type of data required. This research study was conducted in the natural setting which was the respondent’s workplace. A natural setting refers to an environment that is not controlled in any form and where the real-life situation is researched. In the natural setting the environment is not modified or manipulated in any way (Brink, 2012). The research was conducted in public hospitals and Community Health Centres (CHC) with an attached Maternity and Obstetric Unit (MOU) in the Ekurhuleni Region B area of Gauteng, South Africa. If there was an office space or clinic area allocated to OHS in the facility, an attempt was made to conduct the research in that space to provide the researcher with the opportunity to observe the facilities on offer and also to observe the participants in their everyday work space.

The Ekurhuleni Metropolitan Municipality (EMM), the fourth largest municipality in South Africa, was officially formed on 5 December 2000. EMM has an overall population of 3 178 470 (Frith: online). As of 2012, Ekurhuleni Region B, the second largest area, had 690 000 residents with the population forecast for 2020 to be 784 267 (Ekurhuleni: online).

Figure 3.1: Ekurhuleni Metropolitan Municipality all regions

3.4 The Sampling Process

In general terms sampling refers to a process of selection. In research, sampling has as its aim the representative selection of population elements. These elements have common characteristics that the researcher wants to study (Mouton, 2002).

3.4.1 Population

According to Polit and Beck (2001), population is the entire group of persons who interest the researcher. The target population is the group about whom the researcher would like to make generalisations, and the accessible population is that group that conforms to the designated criteria.

The population of interest for this study is people employed to provide occupational health services in public health care facilities. The target population are those employed in these facilities in Ekurhuleni Region B.

The demographics of the participants in this research study such as age, sex, marital status and so forth are not relevant here as they do not affect or determine outcomes. The only demographics that are relevant, as pertains to this study, are the qualification level and job title of the participants as this directly affects their level of knowledge and ability to function as an occupational health practitioner.

3.4.2 Sample

A total sample of all fifteen public hospitals and CHC's in Ekuhuleni Region B, Gauteng, was included in the study. Polit and Beck (2003) describe a representative sample as being where the key characteristics closely resemble those from which the sample comes. The fifteen facilities comprise eight public hospitals and seven Community Health Clinics (CHCs).

In this study, the eligibility and inclusion criterion for participants pertained to one person employed in the facilities whose remit it was to look after the OH of employees. If there was more than one person available, then the person who had the most responsibility as regards the occupational health of staff or whose job title included the term "occupational health" was selected. This criterion allowed the demarcation/identification of the person as the best candidate for interview to exclude bias and subjective "choosing" of a participant.

3.4.3 Sampling Method

The sampling method used in this study was a census or total sample of public hospitals and CHCs in Ekurhuleni Region B.

According to Mouton (2002), a census is a count or the inclusion of all relevant elements in a population. This method was chosen for the study because it was expected that each facility would have a person employed at the facility who had the remit and knowledge, on some level, to address the OHS of employees and

provide insight to the researcher as to the status of OHS and compliance with legislation and guidelines at the facility. The inclusion of all fifteen facilities, ranging from employing 57 people to larger facilities employing more than 1800 people, aimed to provide a complete holistic picture of OHS services in the public health setting.

3.4.4 Problems encountered with the sampling process

Difficulties were experienced in trying to determine who the individual was that met the criterion for inclusion in the study; firstly, since their job title often did not include the words OH and/or Safety, and secondly, that other employees in the hospital were often not aware of who was employed in this capacity.

3.5 Data Collection

The data in this study was collected between November 2015 and February 2016 via a researcher administered semi-structured questionnaire and an interview.

3.5.1 Data collection instruments and techniques

Data collection instruments collectively refer, inter alia, to instruments such as structured interview schedules and questionnaires that are used to generate information.

The purpose of the research study was to explore and describe the nature of OH services in selected public hospitals/CHCs in Gauteng, and to assess the extent to which the services meet the NDoH Guidelines for Occupational Health Services in the Healthcare Setting. The data collection instrument was two pronged in this research study. Firstly, as there was no instrument found to utilise for this study, the researcher developed a semi-structured researcher administered questionnaire based on the NDoH guidelines to guide the interviews of participants and determine compliance to specific factors. (See Annexure 4.) Secondly, the researcher as the research instrument, engaged with participants in an interview process, the content of which was digitally recorded.

3.5.2 Questionnaire

Questionnaires are a method utilised to collect data from several people who are asked a set of standardised questions and the data is collected in the same way for all participants. The unit of analysis in the questionnaire process is the participant (Bring, van der Walt, van Rensburg, 2012).

The researcher's decision to utilise a semi-structured questionnaire consisting of closed and open questions had a dual function. The closed questions had as their aim to illustrate the specific components of the facility's OHS program on set components as stated in the NDoH guideline booklet. These answers were then used to guide further questioning by the researcher to solicit rich description. Secondly, open-ended questions were used to explore the participant's own experience related to OHS in the facility. This dualistic approach had as its aim to provide a description of the actual components of the program, which were then further explored through dialogue in an interview process.

3.5.2.1 Development of the semi-structured questionnaire

Through the review of literature pertaining to the study, the researcher decided to use the NDoH's Guideline booklet on OH services for employees in public health facilities on which to base the study. No existing research instrument was found that included and measured compliance to all components as stated in the guideline, therefore the researcher devised a semi-structured questionnaire. The questionnaire content was categorised according to the components of an OHS program as advised by the NDoH. Questions included under the various categories were deductively formulated from the content of the guideline. This questionnaire aimed to provide specific answers about OHS program compliance, and to serve as a guideline for further questioning in the form of an interview. No attempt was made to weigh the scores of questions as all questions were deemed equally relevant and important.

The questionnaire consisted of two sections (Annexure 4):

Section A, consisting of closed-ended questions and tick boxes, requiring “yes”, “no”, and “don’t know” answers, was completed by the participant and served as background data to guide the questions asked by the researcher. The results of the closed-ended questions in section A were tabulated for each facility to provide an overview of services. Closed-ended questions are limited to the answer choices provided by the researcher, but they facilitate an easier process of analysis than open-ended questions. The questions were simple and short to facilitate ease of understanding and were posed in an unambiguous way. No double-barrelled questions were asked i.e. one question requiring more than one answer. (Brink, van der Walt, van Rensburg, 2012:155-156).

Section B contained open-ended questions. There were no preconceived answers for open-ended questions, as the researcher was aiming to explore the life world and experiences of each participant, according to their own reality as individuals in their workplace. The researcher asked questions regarding answers provided by participants and used prompts to encourage the participants to provide sufficient answers to gain rich data, clarification of phenomena and a better understanding of participant experience. The interviews were digitally taped to ensure no information was lost and for ensuring accuracy and reliability of data.

According to Brink, van der Walt and van Rensburg (2012) open-ended questions are appropriate for exploratory studies as they are not based on pre-conceived answers and provide an opportunity to gain rich, descriptive data. They do, however, by their diverse nature make it more difficult to code and analyse. Closed-ended questions on the other hand limit answers to options provided by the researcher. The current study utilizes both types to gain specific answers relating to compliance and program content on the one hand and a more in-depth understanding of participant experience on the other.

3.5.2.2 Reliability of the questionnaire

The degree of accuracy or consistency with which an instrument measures the phenomena it is designed to measure is referred to as reliability. If the results of a study are reliable it means that the same results will be generated if the study is

replicated by another researcher (Polit and Hungler, 1997). The questionnaire was thus pre-tested.

3.5.2.3 Pre-testing of questionnaire

The questionnaire was pre-tested on two peers in the field of occupational health, not included in the study, employed in a hospital/clinic setting, to determine content relevance, thereby enhancing reliability of the questionnaire as the research tool, correct understanding of questions and length of time to complete the interview. Both individuals were provided with the NDoH's guideline booklet prior to the pre-test session, to facilitate their understanding of expectations as regards OH in public health facilities. Both reviewers understood all questions and felt they were relevant to and an accurate representation of the content of the NDoH guidelines. No adjustments were made to the questionnaire. The interview length varied between half an hour to 45 minutes. The two pre-test interviews allowed the researcher to check the content and face validity of the instrument.

Content validity involves an assessment of the instrument's ability to represent all the components of the variables being measured. This type of validity is usually utilised in the development of interview schedules and questionnaires. The instrument that is developed to be utilised in a study is given to a person with similar characteristics to the participants to pre-test the instrument to determine clarity and whether the instrument measures the essential aspects of variables it is intended to measure. Face validity is simply the determination of whether the instrument appears to measure what it is designed to measure (Brink, van der Walt and van Rensburg, 2012).

3.5.3 Interview

An interview is a conversation between two or more people where questions are asked by the interviewer in the process of collecting data and exploring the ideas, beliefs, viewpoints, behaviours and opinions of those being interviewed. Interviews are an appropriate method of exploring phenomena when little is known about a subject and where insight is required from participants. (Gill, Stewart, Treasure and Chadwick, 2008). Little is known about OHS services in public health facilities

in South Africa, with only two relevant studies being found and they were more than ten years old.

There are fundamentally three types of research interviews, namely unstructured, structured and semi-structured. A structured questionnaire - Section A of the questionnaire - was combined with a semi-structured interview method in Section B of the questionnaire in this study, as the aim was to explore defined concepts/categories in the interview questionnaire and encourage elaboration by participants. A key approach of semi-structured interviews is that there is a partial pre-planning of the questions which facilitates replication of the interview by other researchers, but it still allows for spontaneous questions and elaboration specifically directed to the phenomena in the study. The structured closed questions in Section A of the questionnaire standardised the questions to allow a measure of generalisation of results. (Woods, 2011). The interview was conducted in a face-to-face manner as the researcher wanted to gain insight into participants' emotions/reaction to questions and make field notes.

The questionnaire was researcher administered rather than just self-administered as it was envisioned during questionnaire formulation that participants may not understand concepts and the researcher may need to explain the questions.

3.5.4 Digital recording

Digital recording of the complete interview was conducted to facilitate verbatim transcription and accuracy of data.

3.5.5 Research process in data collection

The researcher followed the following steps with each interview:

- An appointment was made with each participant at a time which suited him/her. It was requested that a room be arranged for the interview that was quiet and conducive to conversation and ensured privacy.

- Upon arrival, the researcher identified herself and, once in the room, requested permission to arrange chairs to enhance face-to face interviewing and close the door.
- The purpose of the study was explained again and the participant was given time to ask any questions.
- The researcher thanked the participant for her participation and willingness to be part of the study.
- The recording instrument was prepared and explained to the participant. The researcher re-iterated that all information on it remained confidential and would only be accessed by the researcher and would be deleted after two years.
- If permission documents had not been signed, then they were given to the participant to read and sign.
- The participant was informed of the confidentiality of data and that it would be kept in the researcher's safe with no other people being able to access it. The participant was informed that he/she could withdraw at any time without implications for him/her. If he/she was uncomfortable answering any questions, then the researcher would continue onto the next question. Participants were assured that their names or other identifying criteria would not appear anywhere in the research report or in any published articles.
- The questionnaire was given to the participant and it was explained that the interview was to be semi-structured and that probing questions would be determined by the information given by the participant. In this study, the researcher first explained that the interview would be digitally recorded and that the researcher would then transcribe the data verbatim and analyse this.
- The participant was given time to complete the tick boxes in Section A. The researcher answered any questions and clarified concepts.
- The participant was informed that the interview was about to commence and that recording was starting.
- Questions answered as "no" generally did not require enquiry unless answers further into the questionnaire contradicted the "no" answer, then

the researcher asked for clarification and/or explanation and answers were written by the researcher on the questionnaire as notes. “Yes” answers generated further exploration; for example, “You state ’yes’ you have an EAP program, can you tell me who administers this, is it in house or outsourced and what it consists of?” An attempt was made by the researcher to ask the same questions of all respondents as regards their yes and no answers, to enhance objectivity.

- The researcher then worked through the completed questionnaire starting at question one and systematically discussing answers up to the last question.
- Field notes were written by the researcher on the questionnaire next to the relevant questions. Field notes refer to notes created during the process of qualitative fieldwork to record behaviours, extra notes and features of observation to promote and contribute to enhanced meaning and understanding of the phenomena under study (Schwandt, 2015).
- The open-ended questions were then asked. Participants were encouraged to engage in dialogue with the researcher by using techniques such as nodding and making sounds that showed interest. Where explanation was not clear or sufficient the researcher made use of probes to explore further. According to Brink, van der Walt and van Rensburg (2012) and Polit and Hungler (1997), probes are ‘...prompting questions that encourage the respondent to elaborate on the topic’ and can be used to create a sense of rapport in that the participant feels that the researcher is interested in her answers and experiences. The researcher also made use of clarification and summarising to ensure that there was no misunderstanding of what was being said, for example,” you said……, is this correct?”
- The researcher observed the non-verbal body language of participants during dialogue and made observation notes on the questionnaire, for example, “participant is frowning and moving a lot in her chair and raising her voice”. Feelings were then clarified at the end of the interview such as, “I noted that when you answered question… you seemed angry/frustrated because you were frowning…is this correct and if not what were you feeling?” According to Nieuwenhuis (2014), “Observation is the systematic

process of recording the behavioural patterns of people, objects and occurrences without necessarily questioning or communicating them."

- At the end of the interview the researcher provided time for the participant to ask questions and ended the session thanking the participant for her part in the research.
- The participants were requested to provide their e-mail address on the questionnaire should they be interested in receiving a copy of the research report.

3.6 Data Analysis

Data analysis refers to the synthesis and organisation of the research data (Polit and Beck, 2012). The process of analysis involves breaking up data into various themes and patterns, with the aim of fostering an understanding of possible relationships between elements of the data that illustrate trends or patterns and establish themes. Once these have been established then a process of interpreting the data follows. In this study, data analysis occurred after the completion of data collection and transcription of interviews (Mouton, 2002).

The method of analysis chosen for this study was Mayring's Content Analysis, which makes provision for the inclusion of quantitative and qualitative factors such as in the current study; hence the data analysis will occur within the scope of his "methodology". This is not viewed as a new methodology. It focuses on joining different steps of analysis with their differing logic, and provided this leads to a solution/answer to the research question, the methodology is seen as adequate. This "methodology" aims to overcome the problematic dichotomisation of a qualitative versus quantitative approach by integrating and connecting for example, a quantitative aspect of a research study with information from subsequent data collection in qualitative interviews. This is the process that was followed in the current research study. This method of data analysis used the assignment of text as a qualitative step and working through data analysing frequencies of categories/responses as a quantitative step (Mayring, 2014). The focus was on the construction of categories and did not include a thematic analysis of content. In this study, the components of the NDoH guideline form the

categories of analysis from Section A of the questionnaire, and the open questions from Section B are categorised according to the question content. An example to illustrate this is: Question 1 – “what is your background and understanding of OH...” – “background was taken as a category and “understanding” as a second category. Subsequently the answers from each participant formed sub-categories.

Content analysis of narrative, non-numeric data involves a process of integrating, synthesising and reduction of such data into themes and categories through a coding process (Brink, van der Walt, van Rensburg, 2012).

The researcher had no system for pre-coding therefore a method of identifying and labelling or coding data needed to be developed for the research study; this is called content analysis. Coding involves the transformation of raw data into representations for analysis. The aim of content analysis is to make sense of data and to highlight features and findings through the identification of patterns and trends in data; generation of possible explanations for patterns and determination if similar patterns occur in other settings/situations (Vaismoradi, Turunen and Bondas, 2013).

The analysis process in the current research study was broken down into five phases:

3.6.1 Phase One - Transcription of interviews

Transcription involves a transformation of the spoken word in recordings to a written form of text (Davidson, 2009). The transcription process used in this research was a pure verbatim protocol where transcription was done word for word, including utterances and idiosyncratic speech elements like “uum”. Dialectical formulations, fillers and articulation were kept as per the conversation (Mayring, 2014 and Davidson, 2009).

Transcripts of recorded interviews were typed verbatim to exclude researcher bias and ensured integrity throughout the process. Bias can affect quantitative as well as qualitative studies by producing errors and distortion that influence the quality of evidence (Brink, 2012).

The analysis of text was not done as a whole, but in segments, in accordance with the segmentation categories in the interview guideline and their relevance to answering the research questions. The researcher transcribed all interviews herself to get a “sense of the whole” and immersed herself in a critical analysis process to facilitate a tentative formulation of category content. The core text formed the basis of the analysis, and the field notes made on the interview guideline, for each participant, during interview were added to the end of each interview transcript.

3.6.2 Phase Two - Peer review

One person who was involved in the pre-testing of the instrument was asked to choose three random interview recordings and review them to determine if verbatim translation occurred. The person was requested to listen to the recording while following on the printed transcription documents to check for accuracy and reliability of transcription. She found that the transcripts were correct and transcribed verbatim.

3.6.3 Phase Three - Data analysis of Section A

Raw data from Section A was entered into an Excel spread sheet consisting of each category of the questionnaire with individual questions contained therein entered into rows. Each row was further broken down into a row for hospitals and a row for clinics to facilitate comparison. The vertical columns consisted of numerical data for yes/no/don’t know answers for each institution, from which percentages were calculated to represent the findings.

3.6.4 Phase 4 - Analysis of Section A

The data was analysed by means of descriptive statistics. Descriptive statistics simply describe what the immediate data shows with no inferring of meaning to it. This was illustrated in the form of tables for each section/sub section of the questionnaire, question by question for each facility. A second table was designed to compare findings in clinics and hospitals for each section. See Tables 1 – 18 Chapter Four. The statistical presentation of data was not, per se, to present a

specific technique of statistical data analysis and reporting, but rather to provide a framework by means of tables to obtain an overall view of findings.

The mutually exclusive categories in the current study are the nine components in the NDoH's guideline. The categories include: promotion of wellness, prevention of occupational injuries and disease, occupational hygiene, consultation services, administration, research, Special Programs, clinical service and Employee Assistance Program. The questions formulated for these categories were derived from their content.

3.6.5 Phase 5 – Analysis of Section B

Content analysis as a method of analysis involves the categorisation and classification of communication content, in this instance specifically pertaining to interviews, with its aim being to provide trustworthy and reliable inferences (Mayring, 2014). According to Benoit (2012), "Content analysis involves the application of mutually exclusive categories to text units, and is often accompanied by quantitative analysis".

In structured techniques, the categories are usually determined in advance and in less structured techniques the participant responses are assessed by the researcher who then decides upon categories and appropriateness to categories (Woods, 2011). In this study, the researcher used a structured categorisation technique for analysis of Section A and a less structured one for Section B.

According to Mayring (2014), content analysis has interpretation as its base with the researcher reflectively interpreting meanings, using his competencies and pre-knowledge in the categorisation of text. In addition, a category system plays an important role in enabling a comparability of findings and an evaluation of analysis reliability.

The researcher analysed the data and formed categories in an inductive way in that categories were not formed based on a theoretical viewpoint, but rather categories were derived directly from summarising the material itself based on answering the research questions (Mayring, 2014). Categories can be formed

through direct expression of actual text or derived through analysis of text (Hsieh and Shannon, 2005). The researcher makes a continued examination and constant comparison of data to form categories (Hashemnezhad, 2015).

The researcher read each interview and highlighted text, line by line, that was relevant to the question posed in the questionnaire and that contained OHS terminology. Relevance to answering the research question was also factored in. This process, according to Benoit (2012), is referred to as “unitising”, where segments of text of interest to the analysis are systematically distinguished and then followed by justification of that choice. The researcher manually categorised the interview content by entering summarised highlighted content onto large flip charts. If a category, for example, “Gauteng’s OHS policy of 2008”, was given in reply to question 1 multiple times a number was placed next to each answer starting at one in order to register its frequency of occurrence and add weight to its meaning in analysis and reporting of findings. The researcher used her knowledge of OHS and components of the questionnaire to guide the choice of inclusion of words and portions of text as possible answers to research questions.

The researcher found that nearly all the participants answered the questions posed with short answers since they did not have much knowledge pertaining to OHS. This lack of knowledge also lead to participants trying to fill the “gaps” with talking about matters irrelevant to the question posed.

One page per institution was used to enable the researcher to visualise the “whole” picture and analyse fit of data into categories. Similar findings were linked with lines between charts and differences circled. Notes were made per institution as regards researcher observations, for example, “appeared angry”. Field notes were added in different colour to the main text. Any numerical answers were entered onto their facility relevant sheet in red and circled to facilitate ease of reporting and comparison of facilities.

3.6.6 Peer debriefing/review

To ensure continuity in the analysis procedure, the same person who engaged in the peer review of the correct transcription of interviews, was also requested to review the data analysis method and provide input and suggestions. The person reviewed the process for two hospitals and two CHCs as a partial inter-coder agreement test (Mayring, 2014:114). This was facilitated to enhance reliability of the categorisation and findings by intra and inter-coder reliability/agreement. She reviewed the researcher's choice of categorisation methods without input from the researcher. She viewed transcripts and the researcher's categorisation, made her own notes and conclusions and then the researcher and debriefer compared choices. Some small changes were made until the researcher and the reviewer agreed on analysis method and categories.

3.7 Rigour in qualitative research

Rigour refers to the researcher's attempt at limitation of bias through a thorough understanding of "self" in an attempt to participate objectively without preconceived ideas and judgements about the phenomena being researched. It also refers to the relevance, openness and thoroughness in the collection and analysis of data (Brink, van der Walt and van Rensburg, 2012). Data collection and analysis methods must be explained thoroughly to facilitate replication by other researchers. These methods were explained thoroughly in this chapter of the research report.

An important aspect of determining rigour is the credibility of the study. This refers to the confidence "...in the truth of the data and the interpretation thereof (Brink, van der Walt and van Rensburg, 2012:172). In the current study, this was achieved through persistent observation by a process of analysis and re-analysis during transcription and the categorisation and summary processes. Pre-testing of the instrument and peer debriefing about all stages in the research also served to provide credibility in the research methodology and design.

According to Cresswell (2009) in Brink, van der Walt and van Rensburg (2012), reliability is concerned with consistency and the stability of participants' accounts, and concurrently the researcher's ability to accurately collect and record information. To achieve reliability in the current research study, the researcher administered the questionnaire personally to ensure participants understood questions and meaning of OHS terminology so data could be deemed "correct" and representative of the participants' reality. To limit subjectivity the researcher answered queries in a factual way with no opinion being given. Pre-testing of the questionnaire, peer review of transcription and analysis methods were all included in the study to enhance accuracy and consistency.

Trustworthiness is a way of ensuring data quality or rigour (Brink, 2012). The trustworthiness of this research study's instrument was established by pre-testing of the instrument. In addition, a peer review was facilitated with one Registered nurse working in the field of Occupational Health, not included in the study, of procedures and processes the transcription process, data analysis method and categorisation method to determine their acceptability, repeatability and trustworthiness (Brink, van der Walt and van Rensburg, 2012).

The peer review served a further purpose regarding confirmability of accurate categorisation, content of categories and content analysis to ensure accuracy of analysis and subsequent findings with the aim of excluding researcher bias. "Confirmability guarantees that the findings, conclusions and recommendations are supported by the data and that there is internal agreement between the investigator's interpretation and the actual evidence" (Brink, van der Walt and van Rensburg, 2012).

The researcher used a total sample of public health facilities to ensure reliability and accurate representation of phenomena which improves the ability to generalize/transfer findings to the wider population (Brink, 2012). As the study is confined to one district the findings in themselves may not be transferable but the description of the context and research methods will facilitate this process for other researchers. To this end, the researcher attempted to enhance the possible

transferability by providing a rich description of the research process (Foster, 2004:230).

An audit trail was accomplished by utilising the same reviewer for the pre-testing of the research instrument, the reviewing of interview transcription, and the categorisation of data as she could then gain insight into the research process and its progression from one stage to the next. Confirmability alludes to the degree with which results can be confirmed by others, hence the use of one reviewer to enhance confirmability of process and findings (Trochim, 2006). A description of the research path, a description of the research design, data collection methods and the management thereof, analysis and reporting of data was given to provide a clear audit trail. An audit trail is also provided for in this study through the records available for verification: the questionnaires completed by the participants, the digitally recorded interviews, the transcripts of interviews with field notes, the categorisation process and analysis procedures.

3.8 Ethical Considerations

According to Brink (2012), research should exclude any exploitation or harm of participants through the fostering of ethical principles executed in a manner that fosters ethical research. The following ethical factors were considered in this study:

3.8.1 Approval for the study

Approval to conduct the study was obtained from the University of the Witwatersrand Post Graduate Department; the Human Research Ethics Committee (HREC – medical) Protocol number: M150436 (Annexure 8) and subsequently from the Provincial Protocol Review Committee for the Gauteng Department of Health Ref: GP2015RP 46 547 (Annexure 6), under whose jurisdiction the healthcare facilities in the study fall. Telephonic and written consent was obtained from the management of each facility in the study after providing relevant study information and permission documents. (Annexure 7.)

3.8.2 Informed consent

Consent from participants, after explanation of the study and the objectives thereof, was gained verbally via telephone and then in person at the facility on the day of the interview. If the participants had access to e-mail the explanation of the study, the research proposal and consent documents were forwarded prior to the date of the interview. The participants were requested to read the Research Study Information document (Annexure 3) and then requested to sign written consent to participate in the study (Annexure 2) and consent to digitally record interviews (Annexure 1). It was explained to participants that they were not obligated to participate and that it was their right to refuse to answer any questions or withdraw from the study at any time.

3.8.3 Autonomy

Autonomy refers to the implication "…. that an individual has the right to decide whether to participate in a study, without the risk of penalty or prejudicial treatment" (Brink, 2012:35).

Autonomy of participants was considered at all times and coercion was excluded by explaining that participation was voluntary and there would be no penalty or repercussions to declining consent, refusal to answer questions or withdrawing from the study at any time.

3.8.4 Confidentiality and anonymity

Polit and Beck (2006) and Brink, van der Walt and van Rensburg (2012) describe confidentiality as the protection of the individual participants' identities from being divulged and identified according to information provided to the researcher.

Confidentiality and anonymity of the participants was assured with the following criteria:

- All interviews were conducted in a private room at the facilities with the door closed. This had the dual effect of also ensuring no violation of privacy

occurred. The private rooms were arranged telephonically prior to the interview after a verbal consent for the study was obtained.

- Protection of the facility and participants' identity is ensured by coding of the facilities in the study, where the researcher is the only one with knowledge of the coding system. The participants are referred to by the code of their respective facility and never by their given names. The guideline does not require a name but rather a job title which is never mentioned in the research report. Personal e-mail addresses appear on the research interview guide only for participants that requested copies of the research report but these documents are kept by the researcher in a safe with no access except by herself.
- Raw data is only accessible to the researcher and shared with her research supervisor only. Thereafter the data will be stored in a personal safe with no access allowed to other entities.

3.8.5 Justice

Brink, van der Walt and van Rensburg (2012) describe the ethical principle of justice as the fair selection of participants based on eligibility relating directly to the research question and their meeting of the inclusion criteria for the study and not because they are seen to be readily available and easily manipulated. The participants in this study were chosen because they were identified as the person most responsible for OHS in each facility.

3.8.6 Transparency

Transparency was maintained by the researcher by explaining the objectives of the research, the type and method of data collection and the potential benefits of the research findings. This was done in a spirit of openness and honesty with no deviation/distortion from the "truth" in an attempt to persuade individuals to participate.

3.9 Conclusion

A description of the research design, population sampling, data collection, data analysis and the ethical considerations underpinning and pertaining to the study were discussed in this chapter.

The research design utilised for this study was a cross-sectional, exploratory and descriptive study using a researcher administered semi-structured questionnaire, which was used as a guide for an interview process. These aspects were discussed in detail and their relevancy to the current study illustrated, together with detailing of data analysis measures.

The rigour of the study was discussed and lastly the ethical considerations pertaining to the study were outlined.

Chapter 4 Data Analysis and Discussion of Research Findings

4.1 Introduction

In this chapter the analysis of data is described, followed by a summary of the findings and results. The findings relate to the research question that underpins and guides this study. Data was analysed to determine, explore and describe the nature and range of occupational health (OH) services in selected public health facilities in an area in Gauteng, South Africa, with regard to their content and compliance to the NDoH's guidelines for OH services for healthcare workers in public healthcare facilities.

4.2 Data Analysis

Data was obtained from 15 institutions (n=15) via a researcher-administered semi-structured interview questionnaire, which was then used to guide a follow-on interview. (See Annexure 9 for an example of a completed interview.) The interviews were held at the facilities where the participants were employed. One person responsible for the OH function in each facility was interviewed. The questionnaire was divided into Section A, which consisted of closed-questions, and Section B, which consisted of open-ended questions. The interviews were digitally recorded and transcribed verbatim. Field notes were written on the questionnaires and "yes" answers were clarified as required as part of the interview recording for transcription. The transcribed interview content together with the answers from Section A, was analysed, according to Mayring's process of Content Analysis, where the quantitative aspect of the questionnaire was connected with subsequent data collected and summarised from qualitative interviews.

4.2.1 Demographics

Demographics such as age, sex etc. was neither required nor relevant to this study. However, to enhance discussion, a table of job category demographics are

included to provide an overview of the job categories of employees participating in the study and to illustrate their qualification level. A comparison between hospitals and CHCs will also be included.

Table 4.1: Job Title and Qualification Level per Institution

INSTITUTION	JOB TITLE	QUALIFICATION LEVEL
H1	Employee Wellness Co-ordinator (EWP)	Enrolled Nurse – no OH qualification
H2	Quality Assurance Manager	Registered Nurse – no OH qualification
H3	Environmental Health Practitioner	Four year Diploma in Environmental Health - no nursing qualification
H4	Occupational Health and Safety (OHS) Manager	Registered Nurse with a BTech Degree in OH
H5	OHS Co-ordinator	Registered Nurse – no OH qualification
H6	OHS Co-ordinator	Registered Nurse – OH certificate
H7	Occupational Health Nurse (OHN)	Registered Nurse – no OH qualification
H8	Occupational Health Nurse Practitioner (OHNP)	Registered Nurse – BTech Degree in OH
C1	Assistant Director	Registered Nurse – no OH qualification
C2	Acting Clinic Manager	Registered Nurse - no OH qualification
C3	Operations Manager	Registered Nurse – no OH qualification
C4	Operations Manager	Registered Nurse – no OH qualification
C5	Operations Manager	Registered Nurse – no OH qualification
C6	Acting Operations Manager	Registered Nurse – no OH qualification
C7	Operations Manager	Registered Nurse – no OH qualification

Table 4.2: OH, Qualification Comparison between Hospitals and CHCs

INSTITUTION	QUALIFICATION IN OH	NO QUALIFICATION IN OH
HOSPITALS (n = 8)	37.5%	62.5%
CHCs (n = 7)	0%	100%

Table 4.3: Comparison between Hospital and CHCs - Qualification of Participants

INSTITUTION	REGISTERED NURSE	OTHER JOB CATEGORY
HOSPITALS (n = 8)	75%	25%
CHCs (n = 7)	100%	0%

This demographic data linking qualification level to the actual service offered in the facility and finding a possible link between those institutions that function well or not so well in terms of OH services, and the level of qualification and, by proxy, level of knowledge on matters pertaining to OHS, will be discussed in Chapter 5. A brief overview of the demographic data follows.

4.2.1.1 Demographic profile

The South African Nursing Council (SANC) (2013) views occupational health nursing (OHN) as a specialist field, where health and safety programs and services are delivered to worker populations in the place of employment. This requires qualified Registered nurses to complete post basic studies in occupational health nursing. OHNs have an in-depth knowledge of workplace risk and focus on preventing illness and injury from these risks. Their remit focuses on assessing and managing and treating illness where required, focusing on programs to prevent occupational illness and injury, managing disability, consultation with employer and employees and providing worker education and training. This background serves to highlight the importance of acquiring the knowledge and skill required to function as a specialist in this varied field.

However, the data from Table 4.1 - Table 4.3 illustrate that this is not the reality in many of the facilities in the study.

Table 4.3 shows that 100% (n=7) of participants in the study, in the position of looking after the OH of employees in the CHCs are Registered Nurses, and in the hospitals, it is 75% (n=6). Of the remaining 25% (n=2), one is an Enrolled Nurse and the other has no nursing qualification and is an Environmental Health Officer. This is problematic in that both these participants will not be able to engage in medical examinations, make decisions pertaining to employee health and illness or prescribe medicine, all of which form an integral part of OH nursing.

Table 4.2 illustrates that none of the employees in the CHCs has a qualification in OH, whereas only 37.5% (n=3) of participants in the hospitals have a post graduate qualification in OHN. 62.5% (n=5) of participants from hospitals have no OH qualification. This will be discussed further in Chapter 5 in a discussion of whether or not the services in the facilities were influenced by the level of qualification of the person offering the OH service.

4.2.2 Semi-structured Questionnaire - Section A Data Analysis

Raw data from Section A was entered into an Excel spread sheet consisting of each category of the questionnaire, with individual questions contained therein, entered into rows. Each row was further broken down into a row for hospitals and a row for clinics to facilitate comparison. The percentages of “yes”, “no” and “Don’t know” answers were calculated. These were then used to construct tables to show results/findings. The statistical presentation of data was not, per se, to present a specific technique of statistical data analysis and reporting, but rather to provide a framework by means of tables to obtain an overall view of findings and to guide the interview discussion.

The data was analysed by means of descriptive statistics. Descriptive statistics simply describe what the data shows without inferring any meaning to it. This was firstly, illustrated in the form of tables for each section/sub-section of the

questionnaire, question by question for each facility. A second table was designed to compare findings in clinics and hospitals for each section.

The tables that follow are named according to their section component in the questionnaire. The first table that was generated pertained to questions asked relating to general components, according the NDoH guideline, which a facility should have in place for OHS.

The answers were coded as:

- Y = Yes
- N = No
- DK = Don't Know

4.2.2.1 Section A: 1. General Occupational Health and Safety

Table 4.4: General OHS - Comparison between Hospitals and CHCs

Question	H1	H2	H3	H4	H5	H6	H7	H8	C1	C2	C3	C4	C5	C6	C7
Does the facility have an OHS Policy?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Is there and OHS Department?	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	N	N
Is there and OH Service Policy?	Y	N	Y	Y	Y	Y	N	Y	Y	N	N	N	DK	DK	Y
Is there an OH service plan?	N	N	Y	Y	Y	Y	Y	Y	Y	Y	N	N	DK	DK	N
Is there a co-ordinator for OH services?	N	N	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N	N
Is there an OHN (Occupational Health Nurse)?	N	N	N	N	Y	Y	N	Y	N	N	Y	Y	N	Y	N
Is there and OHMP (Occupational Health Medical Practitioner)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Table 4.5: General OHS - Comparison between Hospitals and CHCs

QUESTION	HOSPITALS (n=8)			CHCs (n=7)		
	YES	NO	DK	YES	NO	DK
Does the facility have an OHS Policy?	100%	0%	0%	100%	0%	0%
Is there and OHS Department?	100%	0%	0%	14%	86%	0%
Is there and OH Service Policy?	75%	25%	0%	28.5%	43%	28.5%
Is there an OH service plan?	75%	25%	0%	28.5%	43%	28.5%
Is there a co-ordinator for OH services?	75%	25%	0%	57%	43%	0%
Is there an OHN (Occupational Health Nurse)?	37.5%	62.5%	0%	43%	57%	0%
Is there and OHMP (Occupational Health Medical Practitioner)	0%	100%	0%	0%	100%	0%

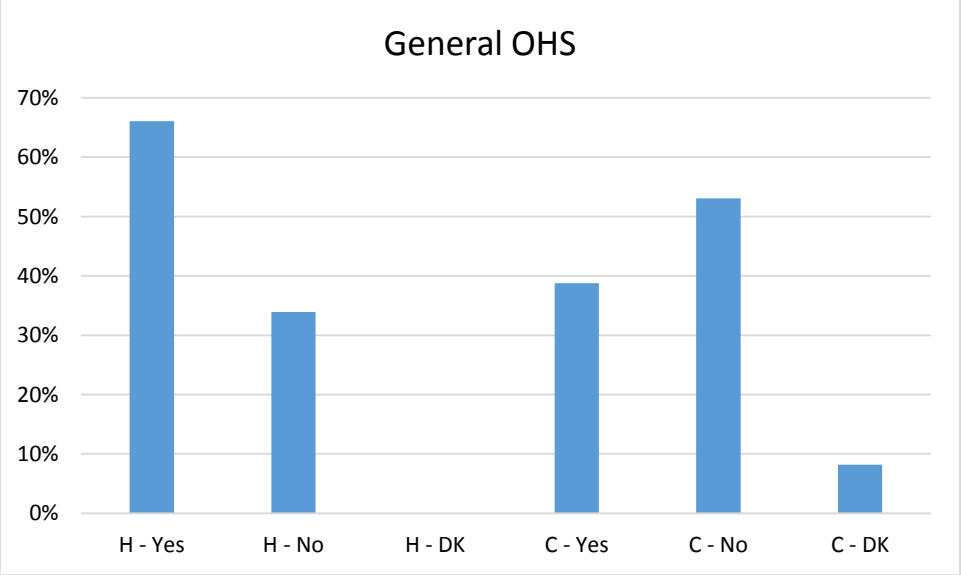

Figure 4.1: General OHS - Comparison between Hospitals and CHCs

4.2.2.1.1 Summary of findings

All hospitals and CHCs had an OHS Policy. They all had the Gauteng Department of Health's 2008 Policy. This Policy makes provision for TB, HIV/AIDS, Needle prick injuries and Hepatitis B programs (DOH, 2008). As we understand from the literature reviewed for this study, OH cannot be limited solely to these factors but it is frequently the case that it is. Participants were aware there was a Policy but often did not know what its contents were, or if they did their knowledge was very limited. Only one participant from the CHCs could provide a detailed explanation of the contents of the Policy. This Policy does not make provision for OH programs such as EAP, medical surveillance, risk management, health promotion and clinic programs as discussed in the NDoHs' guideline booklet.

One hundred percent (100%) (n=15) of hospitals had an OH department, while 14% (n=1) of CHCs had one, and 86% (n=6) of CHCs had no OHS department. The view of the hospitals as providing an OHS department gives a false picture, as only in a few (n=3) could it be said that OH services were partially to mostly compliant with guidelines. The other hospitals had partial services, and often even these services were limited. One hospital had a "clinic" that had been in existence for two years, but had only tables and chairs in it with a blood pressure monitor that was borrowed from a unit in the hospital. 14% (n=1) of CHCs indicated they had an OH department, but this referred to registered nurses (n=2) whose additional duties included an OH function. This OH function included TB monitoring of staff, reporting of injuries and illness and first aid duties. They also understood the OH in their workplace to be referring to the fact that they could access a Doctor when he was on site.

75% (n=6) of hospitals had an OH Service Policy and a Service Plan but only one could produce the Policy and Plan. 25% (n=2) of hospitals did not have a policy or plan. Only 28.5% (n=2) of CHCs verbalised that they had a policy and a plan but once again only one could provide evidence. 43% (n=3) of CHCs had no OH Service Policy or Service Plan, with 28.5% (n=2) not being aware if there were such documents or not. Policy and Service Plans serve to standardise expectations of service level and inform practice and can serve as a measure against which services can be measured for compliance. The Policy and

Procedure manual is a legal document and management instrument, which reflects the framework for implementation of the health services' objectives and describes the scope and nature of departmental responsibilities (Acutt and Hattingh, 2011).

In hospitals 25% (n=2) of OH departments had no OH co-ordinator whereas in CHCs 43% (n=3) did not. 57% (n=4) of CHCs and 75% (n=6) of hospitals said they had an OH co-ordinator. The results for the CHCs of 57% (n=4) having an OH co-ordinator seems to provide a conflicting picture when only 14% (n=1) have an OH department but, according to participants, their co-ordination is not done at clinic level but rather from Germiston (District) Central Office for all areas in Ekurhuleni Region B. The question is then raised that if all the clinics and the hospitals fall under the remit of this central office why all services are not equal, with all evidencing the same results as regards function and services. This will be discussed in further detail in Chapter 5. According to the NDoH (2003) guidelines the OH Program Co-ordinator "….post holder must exercise initiative and look for ways to develop the effectiveness of the OH services." The competencies expected of this person include a qualification in OH with relevant experience and knowledge of appropriate legislation.

OHNs were found in three of the eight hospitals (37.5%). The CHCs results showed 43% (n=3) had an OHN and 57% (n=4) did not. The results for the CHCs do not illustrate the reality as the discussion of Table 1 already shows – there are no qualified OHNs in the clinics, but the participants responded "yes" when there was a person in the clinic with extra duties pertaining to OH. The researcher did not intervene, to exclude her having any effect on the answers to closed questions. However, clarification was gained from participants during the interview process and entered as field notes.

None of the facilities in the study had an OHMP in the OH department. One of the hospitals that had a high level of compliance with NDoH guidelines for an OH service had as its Chief Executive Officer (CEO) a qualified OHMP, but he was not actively engaged in the OH services in this capacity. He did provide guidance and funding as regards the OH expectations and services at this hospital.

4.2.2.2 Section A: 2. Occupational Health Service Activities

As previously detailed, the NDoH guideline states that a comprehensive OH service should include promotion of wellness, prevention of occupational injuries and diseases, a clinical service, an occupational hygiene program, consultation services, administration – information management systems, research, special programs and an EAP. The findings for these components will now be illustrated and discussed.

4.2.2.2.1 Promotion of Wellness

Promotion of Wellness is broken down into three sub-categories: workplace health promotion, employee medical surveillance and sickness absence monitoring.

Table 4.6: Promotion of Wellness

Sub-sections	Question	H1	H2	H3	H4	H5	H6	H7	H8	C1	C2	C3	C4	C5	C6	C7
Workplace Health Promotion	Is there a health promotion program?	Y	Y	Y	Y	Y	Y	N	Y	N	N	N	N	Y	Y	Y
	Is there a health promotion policy?	Y	Y	DK	DK	Y	DK	N	Y	N	N	N	N	DK	DK	Y
Employee Medical Surveillance	Is there a medical surveillance plan?	N	N	Y	Y	Y	Y	N	Y	N	N	N	N	N	N	N
	Are baselines established?	N	N	DK	Y	Y	Y	N	N	N	N	N	N	N	N	N
	Is there a rehab program for return to work after injury/long term sickness absence?	N	N	Y	N	N	N	N	Y	N	N	N	N	N	Y	Y
Sickness absence Monitoring	Is there a sickness absence policy?	Y	Y	Y	Y	Y	DK	Y	Y	N	Y	Y	Y	Y	Y	Y
	Are sickness absence trends monitored?	DK	Y	Y	Y	Y	DK	Y	Y	Y	Y	Y	Y	Y	Y	Y

Table 4.7: Promotion of Wellness - Comparison between hospitals and CHCs

QUESTION	HOSPITALS (n=8)			CHCs (n=7)		
	YES	NO	DK	YES	NO	DK
Workplace Health Promotion						
Is there a health promotion program?	87.5%	12.5%	0%	43%	57%	0%
Is there a health promotion policy?	50%	12.5%	37.5%	14%	57%	29%
Employee Medical Surveillance						
Is there a medical surveillance plan?	62.5%	37.5%	0%	0%	100%	0%
Are baselines established?	37.5%	50%	12.5%	0%	100%	0%
Is there a rehabilitation program for return to work after injury/long term sickness absence?	25%	75%	0%	29%	71%	0%
Sickness Absence Monitoring						
Is there a sickness absence policy?	87.5%	0%	12.5%	85%	15%	0%
Are sickness absence trends monitored?	75%	25%	0%	100%	0%	0%

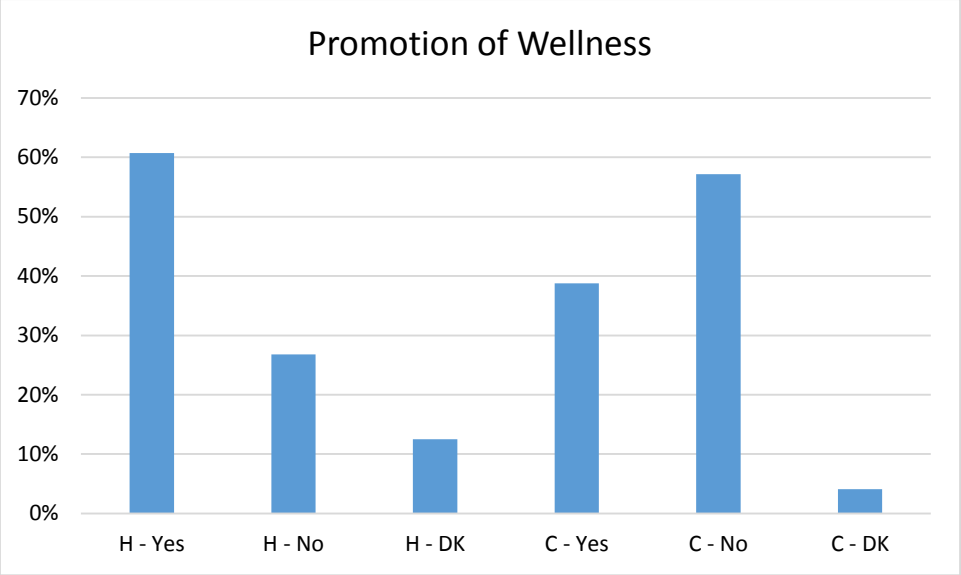

Figure 4.2: Promotion of Wellness - Comparison between Hospitals and CHCs

4.2.2.2.1.1 Summary of Findings: Workplace Health Promotion

Policy should prescribe and describe program content to ensure standardisation. 87.5% (n=7) of hospitals had health promotion programs but only 50% (n=4) had a health promotion policy. 12.5% (n=1) had neither a health promotion program nor a health promotion policy. 37.5% (n=3) did not know if there was a health promotion policy. 43% (n=3) of CHCs had a health promotion program but only 14% (n=1) had a health promotion policy. 57% (n=4) of CHCs had neither a health promotion program nor a policy, with 29% (n=2) saying they did not know if there was a policy. There is a big divide between hospitals, where seven out of eight hospitals had a health promotion program, and CHCs, where only three out of seven had this service.

As all “yes” answers elicited further questioning from the researcher, the following was found:

- Participants from all facilities verbalized that their health promotion program followed the WHOs Monthly Health Calendar. Only one hospital out of the fifteen facilities provided a monthly health promotion program.

- All facilities had a health presentation in some form for World AIDS Day on 1st December.
- All participants belonged to a private medical aid scheme called GEMS. Four of the fifteen facilities in the study said that GEMS medical aid scheme came to their facilities annually to do health promotion. This included blood pressure and cholesterol checks, blood glucose monitoring, HIV counselling and testing.
- Five of the eight hospitals had an employee wellness co-ordinator who provided health promotion and education. The CHCs had no wellness co-ordinators.
- Two of the CHCs received their health promotion from the person allocated the additional OH duties. The health promotion focused on infection control, hand washing and the importance of TB sputum checks twice a year, and how to prevent occupational disease through these measures. They had no one to attend the CHCs to do health checks, as "we can check ourselves or go to the Doctor with our medical aid".
- One hospital had peer educators whom the wellness co-ordinator trained, and then they gave monthly talks in the canteen and at meetings in the health education allocated time slot for the month. At this same facility, the employees had access to a gym.

According to the NDoH guideline (2003), the promotion of wellness will enable the organisation to conduct employee medical and/or health surveillance and encourage personal responsibility for health. The guideline gives the following as examples of what activities are often called for: screening programs to detect the need for lifestyle changes, substance abuse program, smoking cessation, healthy eating programs, stress recognition and management program and general health and safety issues. They further state that an OH service plays a key role in developing and implementing program to inform, educate and advise workers on health issues at work.

As per Acutt and Hattingh (2011:297-298), the program should be planned and not be seen as add-ons in a haphazard and non-sequential way. The employer

plays a big role in the success of such program in that they should provide all the necessities, such as funding and personnel, for the planning and implementation of the programs. Such programs should include all aspects of health education, primary health care (PHC), provision of recreational facilities and EAPs.

4.2.2.2.1.2 Summary of Findings: Employee Medical Surveillance

62.5% (n=5) of hospitals had a medical surveillance plan, compared to the CHCs who had none. Three of the four hospitals that had a medical surveillance plan/program are the same hospitals where there were Registered nurses with an OH qualification. They will be aware of the need for such a plan and one can tentatively come to the conclusion that this may be the reason these facilities have a medical surveillance program. The one other hospital that had a surveillance plan but no OH qualified nurse had a plan because of a previous OH nurse that was employed there. The four hospitals that had a surveillance plan all indicated that it was still under development and that they had started with medical surveillance for new employees and the aim was to include existing employees as time allowed. No deadlines were set by any facility.

A medical surveillance program is a legal requirement according to the Occupational Health and Safety Act No 85 of 1993 (OHSA), as amended (RSA, 1993), where individuals are exposed to health hazards in the workplace. A qualified occupational health practitioner performs periodic health examinations and special tests as part of the medical surveillance function (Acutt and Hattingh, 2011). As hospitals and CHCs are a high-risk environment - as previously discussed in Chapter Two– it can be seen from the results in the tables above that twelve of the fifteen facilities are not meeting legal requirements and three are partially meeting them.

The NDoH guideline (2003) includes medical/health surveillance, including biological monitoring where necessary, as part of the promotion of wellness and prevention of injury and disease. It further states that “all employees should be subject to health surveillance, which may include examinations for pre-placement, transfer, periodic, or on leaving the organisation” (NDoH, 2003:14). The main purposes of this are:

- To establish baselines of candidate health against which to measure future changes.
- To identify possible deterioration in health status possibly caused by work processes and environment.
- To determine suitability for the requirements of the job as regards a candidate's mental and physical status (NDoH, 2003).

A medical surveillance plan should be based on findings of a hazard identification risk assessment (HIRA), together with a health risk assessment (HRA) and an occupational risk exposure profile (OREP). An OREP refers to job specific risk. Only one of the hospitals had a medical surveillance plan based on an HIRA, HRA and OREP. The NDoH guideline (2003) states that it is the duty of the OH practitioner to develop a monitoring program for implementing health surveillance on all employees in accordance with the OREP.

Baseline medical examinations are also known as pre-placement medicals, and should be completed before a candidate is placed in a job as all future assessments will be measured against these findings to determine deviations and/or deterioration (Acutt and Hattingh, 2011). 37% (n=3) of hospitals established baselines with 50% (n=4) indicating they did not and 12.5% (n=1) did not know if baselines were established. CHCs had no medical surveillance and no establishment of baselines in 100% (n=7) of the facilities.

Twenty five percent (n=2) of hospitals and 29% (n=2) of CHCs had a rehabilitation program for return to work after injury or long term sickness absence. There was no rehabilitation program in 75% (n=6) of hospitals and 71% of CHCs. The OH nurse liaises with the employee and the employee's medical practitioner to determine mental status and work capabilities and fitness to return to work. Most people need support, especially in the early stages of any rehabilitative process, to foster the best outcomes (Acutt and Hattingh, 2011). In the two hospitals that had a rehabilitation program the remit included those injured on duty or those that had acquired an occupational disease. In one, they were referred to an orthopaedic Doctor for assessment for referral to physiotherapists or occupational therapists. One CHC indicated that there is an opportunity for a phased return to

work and that if there is a need then an employee would be referred to the OH program in Germiston Central Office.

4.2.2.2.1.3 Summary of Findings: Sickness Absence Monitoring

The findings as regards sickness absence are similar for hospitals and CHCs. 87.5% (n= 7) of hospitals and 85% (n= 6) of CHCs had a sickness absence policy. 12.5% (n=2) of hospitals did not know if they had a policy and 15% (n=1) of CHCs had no policy. Sickness absence trends were monitored in 75% (n=6) of hospitals and 100% of CHCs. In all the facilities where the trends were monitored it was done by the Human Resources (HR) Department.

"Sickness has been defined as 'absence from work' which the employee attributes to sickness or injury and the employer accepts as such" (NDoH, 2003:15). There must be clear policies relating to sickness absence. There must be a good record system and communication between management, HR and the OH services departments. A well-managed OH service assists in reducing absenteeism and excessive sickness absence. Trends should be identified, monitored and discussed with management and labour representatives to eliminate and address unwarranted absences, and also to find ways to support individuals and families needing support (NDoH, 2003). The findings of the current research study indicate that the participants in the OH role had no input or involvement with sickness absence monitoring.

4.2.2.2.2 Prevention of Occupational Injuries and Diseases

The prevention of occupational diseases and injuries is divided into 3 categories, namely: assessing hazardous exposures in the workplace, comprehensive prevention program and the management of occupational injuries and diseases.

Table 4.8: Prevention of Occupational Injuries and Disease

Sub-sections	Question	H 1	H 2	H 3	H 4	H 5	H 6	H 7	H 8	C 1	C 2	C 3	C 4	C 5	C 6	C 7
Assessing hazardous exposures in the WP (workplace)	Do you have Health and Safety (H&S) Representatives?	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y	Y	N	DK
	Do you have a H&S Committee?	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	N	N
	Is there a system for risk assessment of the WP?	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	N
Comprehensive Prevention Program	Is there a risk-based assessment of all employees?	Y	N	Y	Y	N	Y	N	Y	N	N	N	N	N	N	N
	Is there an in-service training of employees on hazards/risk in the WP?	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	N	N
	Is there an immunisation program?	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	N	N	Y
Management of Occupational Injuries and Disease	Is there an incident/accident reporting system?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Is there a program for occupational / injury management?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
	Are injuries / suspected occupational diseases reported to the Compensation Commissioner?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Table 4.9: Prevention of Occupational Injuries and Disease - A comparison between hospitals and CHCs

QUESTION	HOSPITALS (n=8)			CHCs (n=7)		
	YES	NO	DK	YES	NO	DK
Assessing Hazardous Exposures in the workplace						
Do you have health and safety representatives?	100%	0%	0%	43%	43%	14%
Do you have a health and safety committee?	100%	0%	0%	28.5%	71.5%	0%
Is there a system for risk assessment of the workplace?	100%	0%	0%	28.5%	71.5%	0%
Comprehensive Prevention Program						
Is there a risk-based assessment of all employees?	62.5%	37.5%	0%	0%	100%	0%
Is there in-service training of employees as regards hazards and risks in the workplace?	100%	0%	0%	14%	86%	0%
Is there an immunisation program?	100%	0%	0%	57%	43%	0%
Management of Occupational Injuries and Disease						
Is there an incident/accident reporting system?	100%	0%	0%	100%	0%	0%
Is there a program for occupational disease/injury management?	100%	0%	0%	86%	14%	0%
Are injuries/suspected occupational diseases reported to the Compensation Commissioner?	100%	0%	0%	100%	0%	0%

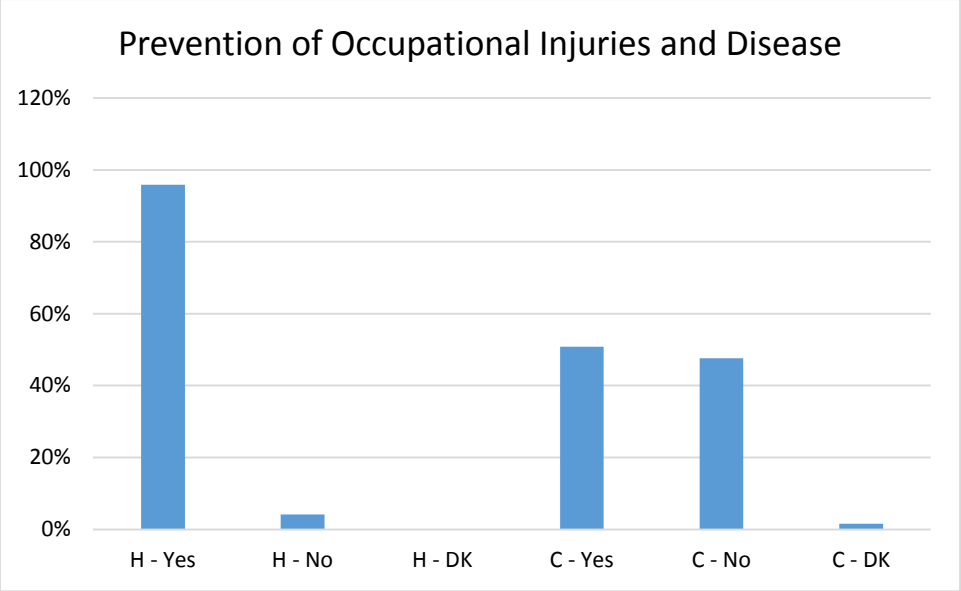

Figure 4.3: Promotion of Occupational Injuries and Disease - Comparison between Hospitals and CHCs

4.2.2.2.2.1 Summary of Findings: Assessing Hazardous Exposures in the Workplace

One hundred percent (n=8) of hospitals had safety representatives and a health and safety (H&S) committee, whereas only 43% (n=3) of CHCs had safety representatives and 28.5% (n=2) have an H&S committee. In the CHCs 43% (n=3) had no safety representatives, 14% (n=1) did not know if there were safety representatives and 71.5% (n=5) had no committee. 100% (n=15) of hospitals had a system for risk assessment of the workplace, whereas only 28.5% (n= 2) of CHCs did. 71.5% of CHCs had no risk assessment system.

The OHSA makes provision for employee representation, participation and consultation, through structures provided for in the Act, in the form of safety representatives and safety committees. The OHSA requires the employer to appoint, in writing for a specified period of time, a health and safety representative in the workplace where there are 20 or more employees. These representatives should be full time employees who have a thorough knowledge of their workplace (RSA, 1993).

As regards the findings, all the hospitals were compliant with the requirements of the OHSA as all the safety representatives were appointed in writing, whereas the CHCs had only one facility where the safety representative was appointed in writing and had received training for this role. Two other CHCs had a safety representative but they had no training nor had they been appointed in writing. Not only are the employees in the CHCs being neglected regarding their health and safety in the CHCs, but they are not compliant with the requirements of the Law in this respect either.

Where two or more health and safety representatives have been appointed in a workplace, the OHSA obligates the employer to establish a health and safety committee. This committee is required to meet at least every three months (RSA, 1993).

Only one CHC health and safety representative met with her CHC manager monthly to discuss inspections done in the CHC whereas the hospitals were 100% compliant with requirements according to the OHSA as they all reported meeting at least every three months, with two reporting meeting every two months and one every month.

4.2.2.2.2.2 Summary of Findings: Comprehensive Prevention Program

The overall process of risk assessment includes the identification of hazards and risk factors in the workplace that may cause harm, an analysis and evaluation of the identified risk associated with that hazard, and the determination of acceptable and appropriate ways to eliminate the hazard or control and mitigate the risk where it cannot be eliminated (CCOHS, 2017).

There is no system of risk assessment for employees in CHCs, with hospitals reporting that 62.5% (n=5) of their facilities have a risk based assessment of all employees and 37.5% (n=3) reporting there is no risk assessment of employees.

According to the South African Society of Occupational Medicines' (SASOM, 2011) Guideline 28: Medical Surveillance for Health-Care Workers (HCW), HCW can possibly be exposed to several hazards and their exposure depends on the

nature of their work and the work environment. In order to determine the exposures and the required medical surveillance programs, a hazard identification risk assessment (HIRA), to include all possible hazard exposures, must be done, and specific Occupational Risk Exposure Profiles (OREP) for all HCW job categories must be completed.

According to Acutt and Hattingh (2011, 257), “A risk assessment is performed by an occupational health team that includes a risk manager, an occupational health medical and nursing practitioner, an occupational hygienist, a safety officer and employees and their representatives in the area that needs to be assessed”.

Although 62.5% (n=5) of hospitals said they had a risk based assessment of all employees, on further enquiry this was not the actual picture. Three out of the five hospitals that responded that they had a risk based assessment of employees was actually referring to a general risk assessment of the workplace as regards ventilation, lighting, ablutions and environmental risks. In four of the hospitals the risk was assessed by an Environmental Health Officer, with a further one hospital verbalizing their risk was assessed every two years by the “Department of Health Risk Directorate doing issue based risk assessments”. As none of the other facilities indicated this type of risk assessment, the participant was requested to explain this process but was unable to do so, which makes this “yes” response questionable. At three of the hospitals the Registered Nurse/OHN was involved with the risk assessments, with only one site having a comprehensive process including a HIRA, OREPs and a medical surveillance plan. At one hospital the OHN was doing risk assessments but was “…told to stop as it was environmental’s job not mine” – there is no medical surveillance plan nor OREPs as a result. The risk manager was involved in the process, at two of the eight facilities. It seems as if there is not awareness in the public health facilities of the risk assessment and hazard identification process and a generalised confusion as regards the delineation of the various role players function.

One hundred percent (n=8) of hospitals indicated they offered in-service training of employees as regards hazards and risks in the workplace. 14% (n=1) of CHCs gave in-service training as regards hazards and risks, while 86% (n=6) did not.

Once again, the hospitals seem to have full compliance with the education of employees as regards hazards and risks in their workplace, but once again on further questioning, this is not as it seemed.

Seven of the eight hospitals provided training on hazards such as needle prick injuries, TB, HIV and blood borne pathogens at induction of new employees. Two hospitals provided training on hazardous chemicals to the cleaners. The remaining hospital gave reactive training after an incident had occurred. Two hospitals gave on the job training as they witnessed hazards and one gave monthly lectures, but attendance was not compulsory. At one hospital the induction training was based on the HIRA and made job specific, so general risks and hazards were discussed at induction, but in-service training was given on a risk per job category basis in the actual departments to which they pertained. This occurred in the hospital where there was a trained OHN.

The risk and hazard training in the 14% (n=1) of CHCs that verbalized that this occurred, was in the form of the manager providing talks when she returned from training or received information from the District Office. One of the nurses in the OH role in the CHCs also provided education on TB and needle prick prevention. 86% (n=6) of CHCs received no training on hazards and risk in their work environment.

The NDoH guideline (2003) states that employers in the Public Health Sector have a duty of care to provide an immunisation program for employees to protect them from infectious diseases in their workplace. It states that the sound features of any immunisation program should be:

- An approved Immunisation Policy to ensure uniformity of practice.
- Risk assessment of all relevant jobs to identify actions and preventative immunisations required.
- Qualified OH practitioners/health care providers must manage the program.

A typical immunisation program may consist of the following, dependant on the risk identified:

- Heaf test to determine TB immunity levels with BCG vaccination if indicated.
- Hepatitis B immunity screening and vaccination where indicated.
- Immunity identification against rubella and varicella.
- Immunisations (mainly laboratory workers) for Hepatitis A and typhoid (NDoH, 2003).

As per the document “Vaccination for healthcare workers,” the Victoria, Australia, Government (2014), states that the vaccine program for healthcare workers should be risk-based and can include the following:

- Pertussis (dTpa) with a booster every 10 years, especially for those in paediatrics, maternity and neonatal units.
- Measles/Mumps/Rubella (MMR) – a blood test prior to vaccine to test for immunity can be done.
- Chickenpox (Varicella) vaccination can be given to those who have no history of having had chickenpox. Alternatively, a serological screen can be done to determine immunity before vaccination.
- Hepatitis B is essential for all staff who have contact with blood and body fluids. A post-vaccination serological test is essential after the completion of the course of three vaccines to determine immunity.
- Hepatitis A, especially for employees who have patient contact and also includes laundry workers.
- Poliomyelitis, especially for laboratory staff who may handle this infectious agent.
- Tuberculosis for all staff who have patient contact.
- Influenza vaccine annually for those in direct care of patients.
- Meningococcal disease for those in direct care of patients and especially laboratory workers (Victorian government, 2014).

All the hospitals (n=8) indicated that they had an immunisation program. 57% (n=4) of CHCs indicated they had a vaccine program, while 43% (n=3) had none. On further questioning, the remit and content of the programs were very limited. The three CHCs who had no program all verbalized that they were expected to

use their medical aid and go to their GP or go to a pharmacy with a clinic and pay for vaccinations. The four remaining CHCs received Hepatitis B vaccination with three also receiving ‘flu vaccines. The fourth was informed that ‘flu vaccine was only for patients. One CHC provided Tetanus vaccination for gardeners if they were injured. No bloods were taken to determine immunity to Hepatitis B after the completion of the course of vaccination. No immunity test for TB was done.

All the hospitals had a program for Hepatitis B vaccination, but this was dependent on whether or not budget was available. More often than not the infection control subsidised the vaccine program. Three hospitals offered ‘flu vaccine to staff every year. One had no ‘flu vaccination while in another it was only offered to staff with chronic health problems. Two hospitals could only have ‘flu vaccinations if there was a budget for it, or alternatively if there was some left over from infection control’s supply for patients. At three hospitals screening for immunity to Hep B was done after completion of the full course of vaccine. No screening for TB immunity was done. The findings illustrate that the hospitals and CHCs in the research study are falling far short of the NDoHs’ guidelines, and also those recommended by the Victorian Government.

The findings illustrate that in these facilities employees are not being adequately protected from infectious agents that have the potential to cause serious illness and even death. The Centers for Disease Control and Prevention (CDC, 2016), in their discussion (online) on the Public Health Law Program in the United States of America, look at the Vaccination Laws that pertain to healthcare facilities, and the documents have as common requirements: the assessment of healthcare worker vaccination status, offering vaccines to healthcare workers and ensuring vaccination has been administered for all vaccine-preventable disease. In some facilities the requirements are being established by mandates in state statutes and regulations – is this the way forward for enforcing vaccine preventable diseases in healthcare workers in South Africa?

4.2.2.2.2.3 Summary of Findings: Management of Occupational Injuries and Disease

The Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 as amended, defines an accident as: “an event that arises out of and in the course of an employee’s employment and which results in personal injury” (RSA, 1993). An incident refers to an undesired and unplanned event that adversely affects completion of a task (OSHA, 2014). “Near misses” should also be reported – these refer to incidents where no personal injury or damage to property occurred but where it could easily have occurred, for example, worn down insulation on wiring (OSHA, 2014). These should be reported to the health and safety reps who should ensure action is taken.

One hundred percent of hospitals and CHCs indicated that there was an accident/incident reporting system. For all facilities this was in the form of reporting documents that were completed and submitted. In the hospitals these were handed in to the risk or Safety Departments and/or Environmental Health Practitioners. They were discussed at the health and safety committee meetings. In the CHCs the reporting documents were sent to the District Office and there was no further discussion or feedback unless they were of a serious nature that involved time lost from work.

One hundred percent of hospitals (n=8) indicated that they had a management system for occupational injury and disease management, whereas 86% (n=6) of CHCs said they did with 14% (n=1) saying they did not. There does not seem to be standardisation of a management system for the management of occupational injury and disease, as when questioned the majority of participants could not explain what happens to employees once a case has been reported and felt it was the function of management or the Human Resources department. In the three hospitals where there were OHNPs employed it was managed by them and employees were recalled for monitoring and assessment. The CHCs all reported that it was managed by the District Central Office, but they were only aware of TB being managed in this way and they were unsure about how injuries were to be handled – most (n=5) verbalised that they thought they would have to use their medical aid and attend the hospital or their GP.

All facilities (n=15) indicated that serious work related injuries and suspected occupational diseases were reported to the Compensation Commissioner. As previously stated, in the hospitals this was mainly through HR or management of the facility and in the CHCs the clinic manager would get the documents from the GP or hospital and send them to the District Office in Germiston.

The NDoH (2003) states in its guideline that the OH service should take total responsibility for the management of all occupationally related disease and injuries, in compliance with legislation and specifically the Compensation for Injuries and Diseases Act.

4.2.2.2.3 Clinical Service

The NDoH guideline (2003) includes, under the clinical service aspect, as part of a holistic OH service – emergency medical care, management of occupational injuries and diseases, primary health care and a process of continuing health care through the monitoring of chronic conditions.

Table 4.10: Clinical service

Question	H1	H2	H3	H4	H5	H6	H7	H8	C1	C2	C3	C4	C5	C6	C7
Is there a clinic service for all employees?	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N
If there is a clinic does it cover:															
Primary Health Care (PHC)?	Y	N	N	Y	Y	Y	N	N	N	N	N	N	N	N	N
Emergency medical care?	Y	Y	N	Y	Y	Y	Y	N	N	N	N	N	N	N	N
Chronic services?	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N
Management of OH disease?	Y	N	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N

Table 4.11: Clinical Services - A comparison between hospitals and CHCs

QUESTION	HOSPITALS (n=8)			CHCs (n=7)		
	YES	**NO**	**DK**	**YES**	**NO**	**DK**
Is there a clinic service for all employees?	100%	0%	0%	0%	100%	0%
If there is a clinic does it cover:						
Primary Health Care (PHC)?	50%	50%	0%	0%	100%	0%
Emergency medical care?	75%	25%	0%	0%	100%	0%
Chronic services?	87.5%	12.5%	0%	0%	100%	0%
Management of OH disease?	75%	25%	0%	0%	100%	0%

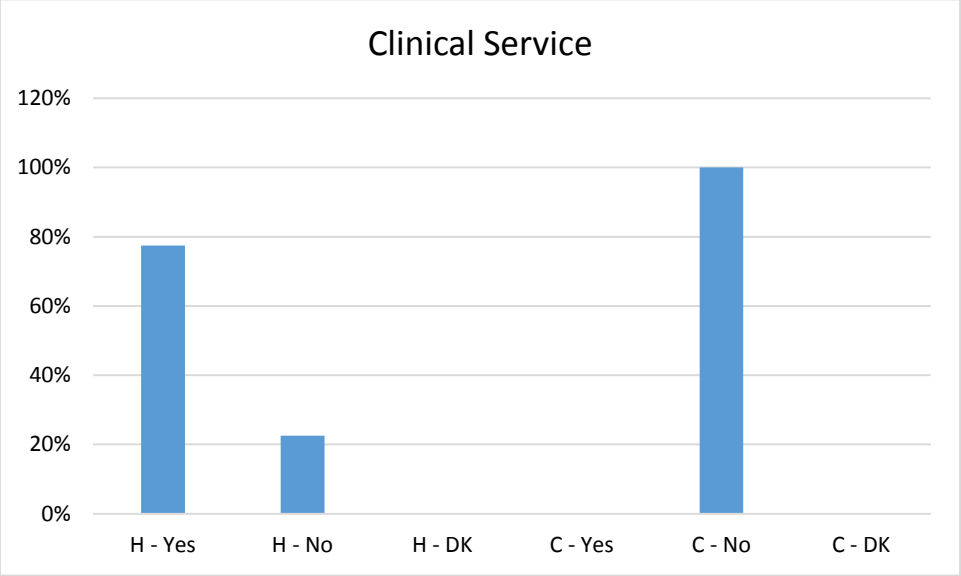

Figure 4.4: Clinical Service - Comparison between Hospitals and CHCs

4.2.2.2.3.1 Summary of findings: Clinical Services

Mosby's Medical Dictionary (2009) defines primary health care as "a basic level of health care that includes programs directed at the promotion of health, early diagnosis of disease or disability and prevention of disease". Primary health care services in SA include but are not limited to: immunisation, women's reproductive

health, management of communicable diseases, HIV/AIDS, TB, Trauma and emergency, mental health, chronic disease management, substance abuse and child and maternal health.

None (n=7) of the CHCs had onsite clinic facilities or services for employees. In all CHCs staff were allowed to access the Doctor when he/she was onsite and if there was time between patients. However, all participants from the CHCs verbalized that they had a medical aid and were expected to use it if they were ill to consult a private medical sector Doctor. Employees in these CHCs offer daily PHC services to patients from the community, and four out of the seven CHC research participants verbalised that it was unfair that the communities had this free service which they were expected to administer, yet they, themselves, had no access to such services. They also felt that time was lost and shortages of staff were experienced when staff members had to leave the premises to attend their Doctor for chronic or illness conditions that could receive treatment in the CHCs. Furthermore, an occupationally acquired disease such as TB is not treated at the workplace although it is reported from there.

The hospital employees fared much better with 100% (n=8) of participants indicating they had a clinic service for employees. 50% (n=4) of participants had access to PHC while 50% (n=4) did not. Two of the eight hospitals (25%) verbalized that they had no emergency service for staff, while 75% (n=6) indicated they did. Services for assessment and treatment of chronic disease was available in 87.5% (n=7) of the hospitals, with one participant indicating no chronic services were available at the facility where she was employed. 75% (n=6) of participants felt that there was a service to manage occupational disease at the hospital and 25% (n=2) felt there was no service.

Two (25%) hospitals had no access to emergency care and were not able to access either the Outpatients' department (OPD) or casualty. The other six (75%) hospitals allowed staff to attend casualty for emergencies. One hospital had no chronic service for its employees and employees had to access their own Doctor, while the rest were seen either in the department of Family medicine or in casualty. Four (50%) of the hospitals had a clinic where staff could attend for the

majority of clinic services. Five (62.5%) of the hospitals offered PHC services where the staff were seen by the OHNP or Registered Nurse who then referred them to the Doctor in Family medicine, OPD or casualty for a prescription and they got their medication from pharmacy. A participant from one of the larger hospitals with a OH clinic verbalized that she had a PHC qualification so could prescribe medicine, but she had minimal equipment in the clinic and no lock up cupboard to store the medicine, so staff had to "go through a long process of having to see the family medicine Doctor and wait at pharmacy for medicines".

The main problem seems to be the lack of standardisation of clinic services for staff in all public health facilities, with each facility participating in their own way, with the means available to them, and even when the means seem available there is a tedious process involved in meeting the health needs of employees. The employees in CHCs are worse off in that they have a "standardisation" of services – NO services. With reference to the literature review in this study, the researcher once again asks – who is looking after the health of those expected to look after the health of the nation?

4.2.2.2.4 Occupational Hygiene

The South African Institute of Occupational Hygiene's President (Badenhorst, website – undated) states that the principles of occupational hygiene involve:

- An anticipation and identification of factors in the workplace that could harm employees.
- Evaluation of exposure trends and quantification of the degree, frequency and patterns of exposure and the calculation of occupational exposure limits.
- Control mechanisms for exposure and risk.

As previously stated in the literature review, an occupational hygienist has to register his qualification with the DOL. He/she engages in all the duties as stated in the principles above in completing an environmental/occupational hygiene survey for a site, which is site specific and cannot be generalised to the same industry on another site. This is required to be done every two years. A report of

all findings and recommendations is provided on which the OHMP and OHNP consult to compile an HIRA, HRA and a medical surveillance plan for the workplace.

Table 4.12: Occupational Hygiene

Question	H1	H2	H3	H4	H5	H6	H7	H8	C1	C2	C3	C4	C5	C6	C7
Has an Environmental/ Occupational Hygiene Survey been done?	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y	N	Y	N	DK
Is there an HIRA (Hazard Identification Risk Assessment)?	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	N	Y	N	N
Is there an HRA (Health Risk Assessment)?	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	N	N
Are regular “walkthrough” inspections done?	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y	N	Y	N	N
Are MSDSs (Material Safety Data Sheets) for all materials/chemicals used onsite available and accessible to all employees?	DK	N	Y	Y	N	Y	N	Y	N	N	Y	N	N	N	N

Table 4.13: Occupational Hygiene - A comparison between hospitals and CHCs

QUESTION	HOSPITALS (n=8)			CHCS (n=7)		
	YES	NO	DK	YES	NO	DK
Has an Environmental/ Occupational Hygiene Survey been done	100%	0%	0%	29%	57%	14%
Is there an HIRA (Hazard Identification Risk Assessment)?	100%	0%	0%	29%	71%	0%
Is there an HRA (Health Risk Assessment)?	100%	0%	0%	15%	85%	0%
Are regular "walkthrough" inspections done?	100%	0%	0%	29%	71%	0%
Are MSDSs (Material Safety Data Sheets) for all materials/chemicals used onsite available and accessible to all employees?	50%	37.5%	12.5%	14%	86%	0%

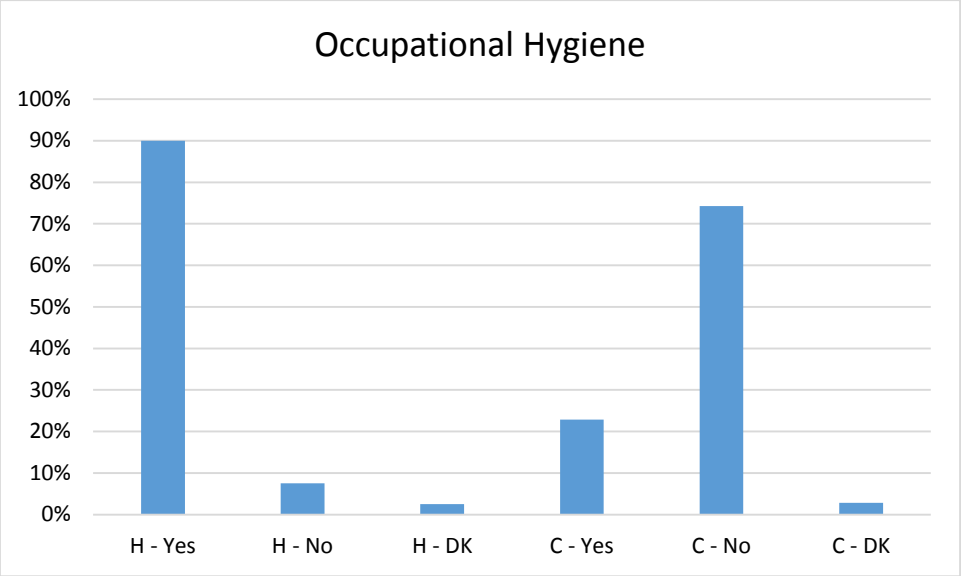

Figure 4.5: Occupational Hygiene - Comparison between Hospitals and CHCs

4.2.2.2.4.1 Summary of Findings: Occupational Hygiene

One hundred percent of hospitals (n=8) indicated that a Hygiene Survey had been completed for the facility, while only 29% (n=2) of CHCs responded “yes”. 57% of the CHCs had no completed Hygiene Survey, while 14% indicated they were not aware of what a hygiene survey was, neither were they aware if one had been completed or not. Without the identification and quantification of risk, contained in a Hygiene Survey, the HIRA and HRA are non-compliant nor completely relevant to a specific workplace, as one cannot generalise about risk and their effect on health if no measurements are available to rate that risk. Upon further questioning, none of the hospitals could provide evidence of the Hygiene Survey in the OH department, and those that were engaged in a medical surveillance program did not base this on the results of the Hygiene Survey. In the hospitals the Hygiene Surveys had either been completed by an Environmental Officer from the District Office or one employed at the facility. All had been done within the last two years. When questioned about the contents of the Survey there was a generalised confusion about what had been measured, with answers differing at all sites. Some answers included: “lighting, electrics and ventilation”, “ventilation, sharps and water”, “air, chemicals and TB” – to name but a few. None of the participants (n=15) named the full spectrum of risk to include: (Acutt and Hattingh, 2011:152-153).

- Biological - bacterial, viral or fungal.
- Chemical - dust, fumes, smoke, mists, vapours and gases.
- Physical – Ergonomics, illumination, noise, pressure, radiation, temperature extremes and ventilation.
- Mechanical – vibration and biomechanical injuries.
- Psychological - stress, shift work, violence in the workplace.

The HIRA and the HRA are the follow-on to the Hygiene Survey and 100% (n=8) of hospitals verbalised that they had completed an HIRA and an HRA. When asked to provide evidence of these, 100% verbalised that it could be obtained from the Environmental Department. This is not ideal as it is supposed to be available in the OH department for guiding practice as regards medical surveillance; also when site walkthroughs are completed this should provide the

point of reference. 71% (n=5) of CHCs did not have an HIRA while 85% (n=7) had no HRA. One of the CHCs (n=7) had an HRA while 29% (n=2) had an HIRA. Two of the CHCs indicated that an Environmental Practitioner had come to the premises to complete an HIRA, but they were “not sure” what was measured. Two CHCs with a Registered Nurse in an OH role felt that the HRA involved checking the fullness of sharps containers to determine if they were a hazard and taking sputum for TB screening. They also checked the ventilation – subjective checking, not with any measurement instruments. The HIRA identifies and measures hazard and risk and the HRA determines the health impact or potential outcomes of exposure as regards acute and chronic effects on health.

“Walkthrough” inspections of the workplace should occur on a regular basis, ideally monthly, not just when risk assessments are being done. These walkthrough inspections should include the health and safety reps who are familiar with the areas being inspected, the OHNP, management, risk manager (if there is one), environmental officer (if there is one) and in the healthcare setting the infection control nurse. There should be standardised checklists for each section and action plans should be compiled with timeframes for any factors needing attention. These should be discussed at the health and safety committee meetings.

The hospitals reported that walkthroughs were done at 100% (n=8) of facilities while only 29% (n=2) of CHCs had walkthrough inspections. At 71% (n=5) of CHCs no walkthrough inspections were done. The CHC walkthrough inspections were done by the Registered nurses in an OH role in the two facilities, but only included checking if anything was broken and the sharps containers. At both CHCs there was no fixed inspection time but was reported as “not regularly”. The findings were reported to the facility manager.

One hospital reported that the health and safety representatives did daily inspections according to a checklist and then handed them into OH at the end of the month. Two hospitals reported that weekly checks were done by the OHN and discussed at the health and safety committee meetings. Three hospitals did monthly walkthrough inspections that included the OHNP, infection control,

environmental health and the facility manager with one also including a person responsible for quality assurance. One hospital reported that irregular inspections were done by the OH nurse.

Material Safety Data Sheets are documents that provide product literature regarding a chemical product's potential hazards, including health, fire, reactivity and environmental. It further contains information on the safe usage, storage, handling and emergency procedures and medical treatment if exposure occurs (CCOHS, 2017). There should be a file available at each facility, which is easily accessible to all staff, which contains all the MSDSs for each chemical product in use at the facility.

50% (n=4) of participants from the hospitals indicated they had MSDSs, 37.5% (n=3) did not and 12.5% (n=1) did not know if they had them or not. Three hospitals indicated that the cleaning department had a file with one of these also including the laundry and another including the stores department. Two said "no, but we check the bottle". One indicated they had a file with some in the OH department, but it was very difficult to get them from the companies.

One of the CHCs indicated having MSDSs but this was for a few cleaning products and 86% (n=6) had no MSDSs.

4.2.2.2.5 Consultation Services

The OHNP and the OHMP possess specialist knowledge and expertise pertaining to all matters of occupational health, and therefore should act in a consultative capacity in engaging with management and the other members of the OH team to advise on legislative requirements and all other matters of OH. The workers and management, on the other hand, are experts regarding their workplace and therefore there should be a symbiotic relationship between the whole OH team and the management in attaining the highest standard of OHS to protect the workforce. The NDoH guideline includes, under consultation services, participation in emergency/disaster planning, co-ordination of first aid training, including responsibility for first aid boxes. Employers should ensure that trained first aiders should receive written appointments, and first aid equipment should be provided

and controlled by first-aid trained personnel. There should be a consultation with entities outside the workplace that also affect the health of the workforce/workplace (NDoH, 2003:14 & 20).

Table 4.14: Consultation Services

Question	H 1	H 2	H 3	H 4	H 5	H 6	H 7	H 8	C 1	C 2	C 3	C 4	C 5	C 6	C 7
Is there a formalised consultation program between the OHMP, OHN, management, unions and the employee representatives?	Y	N	N	Y	N	Y	N	Y	N	N	N	N	N	N	N
Are there first aiders onsite?	Y	N	Y	Y	Y	N	Y	Y	N	N	N	N	N	N	N
Are there first aid boxes onsite?	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y	Y	N	Y
Is there a referral/feedback system from/to hospital/outside providers?	Y	Y	DK	Y	N	N	N	Y	N	Y	Y	Y	N	Y	Y

Table 4.15: Consultation Services - A comparison between hospitals and CHCs

QUESTION	HOSPITALS (n=8)			CHCs (n=7)		
	YES	NO	DK	YES	NO	DK
Is there a formalised consultation program between the OHMP, OHN, management, unions and the employee representatives?	50%	50%	0%	0%	100%	0%
Are there first aiders onsite?	75%	25%	0%	0%	100%	0%
Are there first aid boxes onsite?	100%	0%	0%	57%	43%	0%
Is there a referral/feedback system from/to hospital/outside providers?	50%	37.5%	12.5%	71%	29%	0%

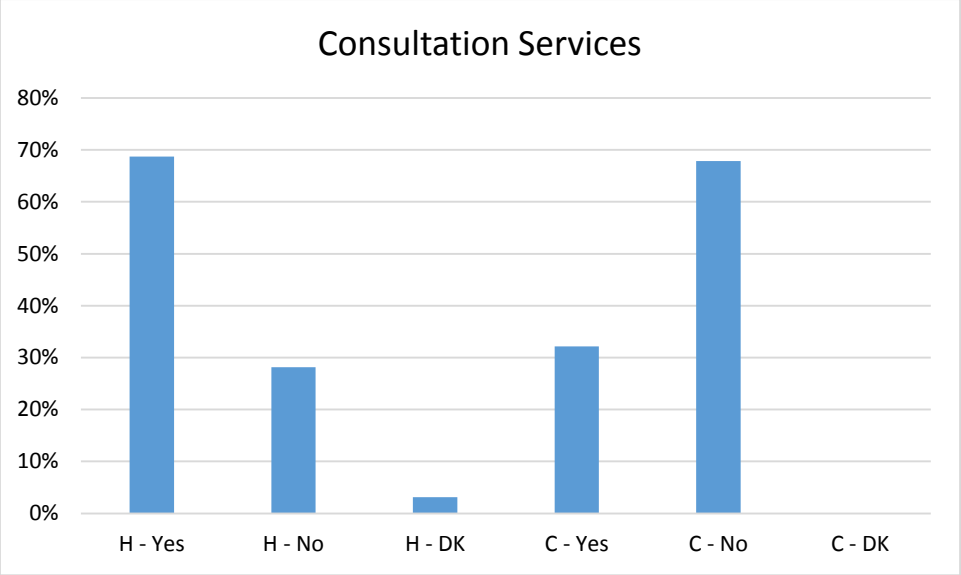

Figure 4.6: Consultation Services - Comparison between Hospitals and CHCs

4.2.2.2.5.1 Summary of findings: Consultation Services

Participants from the CHCs all (n=7) indicated that there was no formalised consultation program as there was neither OHMP nor an OHNP, and unions did not factor onsite. 50% (n=4) of hospitals had a formalised consultation program, while 50% (n=4) did not. There was consultation between various stakeholders at the hospitals, with safety representatives playing an important role.

There were no trained first aiders at the CHCs and 57% (n=4) indicated there were first aid boxes. 43% (n=3) indicated there were no first aid boxes and all felt this was not seen as necessary, with one participant's comments summing the situation: "…we are seen to be in a health facility, so it is one aspect that is really ignored because they believe that if we can give first aid to the people or the patients then they believe we can also give it to ourselves." Hospitals reported that 75% (n=6) had first aiders onsite, with 100% (n=8) having first aid boxes. Two (25%) of the hospitals had no first aiders, with three hospitals indicating the first aiders were not sufficient for the number of personnel. The OHS Act (1993) states that there must be one first aider appointed for every 50 employees in a high risk environment. This means that the CHCs should have at least one first aider, but they are not compliant. Participants from the hospitals indicated that where there

were insufficient trained first aiders the reasons varied, but the one common to all of them was that there was no or insufficient budget for first aid training.

Four of the seven CHCs had first aid boxes which were stocked with stock from the clinic and the Registered nurses administered first aid. Only one of the eight hospitals had first aid boxes in the wards, with one using the emergency trolley for first aid. The rest of the seven hospitals had first aid boxes in various departments such as cleaning and support services.

50% (n=4) of hospital participants indicated they had a referral system to outside providers but only one indicated they received feedback. 12.5% (n=1) did not know if there was a system for referral and feedback while 37.5% (n=3) said there was no system. All were referred to their own Doctor for illness. Of the 71% (n=5) of CHCs that indicated they had a referral/feedback system, one had access to two psychologists and a social worker. As with the hospitals, employees were referred to their own Doctors.

4.2.2.2.6 Administration

According to the NDoH guideline (2003:14), the administration component of an OH program encompasses: the development and maintenance of an information management system to include statutory records and reports according to relevant legislation, policy and procedure manual, medical directives and protocols and personal records such as risk assessments, environmental and sickness absenteeism.

Table 4.16: Administration

Question	H1	H2	H3	H4	H5	H6	H7	H8	C1	C2	C3	C4	C5	C6	C7
Is there a Policy and Procedure manual for OH and safety?	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y	Y	Y	N
Is there an OH information management system?	N	N	DK	Y	Y	Y	N	Y	N	N	N	Y	Y	N	N
Are OH records kept for the following:															
Environmental?	Y	N	Y	Y	DK	Y	N	Y	N	N	N	Y	Y	N	N
Sickness absence statistics?	DK	Y	Y	Y	Y	Y	Y	N	N	Y	N	Y	Y	Y	N
Medicine control?	Y	N	DK	Y	DK	Y	N	N	N	Y	N	N	N	N	N
Research?	N	N	N	N	DK	N	N	N	N	N	N	N	N	N	N
Statutory records and reports (e.g. Radiation)?	Y	N	Y	Y	DK	N	N	Y	N	N	N	Y	Y	Y	N
Are health records created for all new employees?	Y	N	Y	Y	Y	Y	N	Y	N	N	N	N	N	N	N
Audit of OH services:															
Are the facilities audited?	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N	Y
Is there a set internal audit tool?	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	DK	Y	Y	Y
Are there OH department standards?	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N
Are there KPIs (Key Performance Indicators)?	Y	Y	N	N	N	N	N	Y	N	N	N	N	N	N	N
Are there set targets?	Y	Y	N	N	N	N	N	Y	N	N	N	N	N	N	N
If audited, do you receive feedback?	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y	N	Y	N	Y

Table 4.17: Administration - A comparison between hospitals and CHCs

QUESTION	HOSPITALS (n=8)			CHCs (n=7)		
	YES	NO	DK	YES	NO	DK
Is there a Policy and Procedure manual for OH and safety?	100%	0%	0%	57%	43%	0%
Is there an OH information management system?	50%	37.5%	12.5%	29%	71%	0%
Are OH records kept for the following:						
Environmental?	62.5%	25%	12.5%	29%	71%	0%
Sickness absence statistics?	75%	12.5%	12.5%	57%	43%	0%
Medicine control?	37.5%	37.5%	25%	14%	86%	0%
Research?	0%	87.5%	12.5%	0%	100%	0%
Statutory records and reports (e.g. Radiation)?	50%	37.5%	12.5%	43%	57%	0%
Are health records created for all new employees?	75%	25%	0%	0%	100%	0%
Audit of OH services:						
Are the facilities audited?	100%	0%	0%	71%	29%	0%
Is there a set internal audit tool?	100%	0%	0%	71%	14.5%	14.5%
Are there OH department standards?	100%	0%	0%	0%	100%	0%
Are there KPIs (Key Performance Indicators)?	37.5%	62.5%	0%	0%	100%	0%
Are there set targets?	37.5%	62.5%	0%	0%	100%	0%
If audited, do you receive feedback?	100%	0%	0%	43%	57%	0%

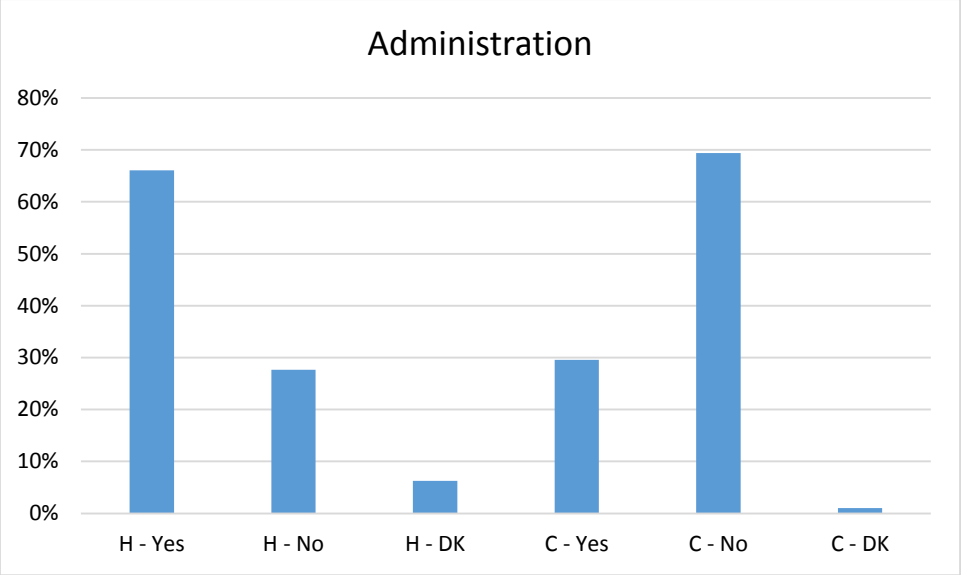

Figure 4.7: Administration - Comparison between Hospitals and CHCs

4.2.2.2.6.1 Summary of findings: Administration

One hundred percent of hospitals (n=8) indicated that they had a Policy and Procedure Manual for OHS, while only 57% (n=4) of CHCs had one. 43% (n=3) of CHCs had none. When questioned about the contents of the documents, two hospitals indicated that they used the "*National Policy Manual"* that contains information on risk assessment, risk and medical surveillance. The rest of the hospitals and CHCs collectively were vague and lacked knowledge of the name and contents of the Policy Manual, but all (n=13) indicated there was information on TB, needle prick injuries, accidents and incidents and risk. The *Occupational Health and Safety Policy for the National Department of Health* states as its purpose: "….. to establish minimum standards and requirements of occupational health and safety of the National Department of Health to reduce risk by: -

- Identifying hazards and possible risks causing incidents and accidents,
- Setting standards of practice, procedures and accountability,
- Measuring performance against standards,
- Evaluating compliance with standards,
- Correcting deficiencies, deviations, and set standards of procedures to be followed,

- Creating and maintaining a healthy and safe work environment" (NDoH, 2006:3).

It further discusses the duties and health and safety obligations of the NDoH towards its employees to include risk assessment and identification of hazards of the workplace, training of all employees regarding hazards related to their work, the designation of health and safety reps and their function and health and safety committees and their function (NDoH, 2006).

According to the NDoH (2003:28-29) guideline, personnel health records are vitally important as the chronology of their health status and any treatment administered should be able to be accessed for immediate reference. Employee OHS records must be kept in a secure and confidential manner in locked cabinets, separate to other files. If records are stored electronically then there must be back-up records and the security of electronically stored files must be ensured by secure passwords. Only OH unit personnel should be able to access medical records. OH records remain the property of the employer and have to be kept for 30-40 years and should be clearly marked in order to prevent them being prematurely destroyed.

37.5% (n=3) of hospitals had no OH information management system, while 50% (n=4) indicated they did and one did not know if there was a system. On the other hand, the CHCs indicated that 71% (n=5) had no such system, with 29% (n=2) saying they had a system. H2 were creating records but this was stopped by the unions onsite. H5 was the most compliant and had health information files kept in a lockable fire-proof cabinet, which could only be accessed by the OHN and the wellness practitioner, who was also a Registered nurse, but these files contained mostly tests, medication and immunisation records. Not all staff had files. H8 had records for IODs, medical surveillance, chronic monitoring, medication and tests, and files were created for all new employees within forty days of commencing duties. However, there was one file for everybody – there are more than1800 employees at this facility and this therefore raises the question of how comprehensive these records are. H6 verbalised that people were employed but never referred to the OH department, so there were no records as sickness

certificates were submitted to HR. C4 and C5 had personnel health files but they contained only TB sputum results, any immunisation and sick leave or Doctor's notes. These files were kept in the manager's offices which were often not locked. No medical surveillance was done at the CHCs, hence the lack of any comprehensive health information management system.

Environmental records were kept by 62.5% (n=5) of hospitals and these were kept by the environmental department in all five facilities. 12.5% (n=1) did not know if environmental records were kept and 25% indicated no environmental records were kept in their hospitals. In the CHCs, 29% (n=2) of participants said environmental records were kept in the form of inspection feedback, while 71% (n=5) said no environmental records were kept.

According to the NDoH guidelines, facility management should monitor and manage all sickness absence to identify trends and possible causative factors, and engage in strict record keeping. The manager can refer the employee to OH for assessment.

Sickness absence statistics were kept by 75% (n=6) of hospitals, and 12.5% (n=1) said no records were kept, while 12.5% (n=1) did now know if they were kept. The sickness absence, in the six hospitals that responded in the affirmative, was done by the HR department with no feedback given to the OH department. The CHCs indicated that in 43% (n=3) no sickness absence statistics were done, while 57% (n=4) said they did record sickness absence statistics. The sickness absence records were kept in a management file and reported to Germiston Central Office.

Record keeping on the control of medicine for staff was done by 14% (n=1) of CHCs, while no records were kept by 86% (n=6). This was in keeping with the fact that CHC employees were, for the most part, expected to consult with their own GP or private medical facilities. 37.5% (n=3) of hospitals indicated that they did not engage in keeping records on medicine, and the same number – 37.5% (n=3) - reported that they did. As none of the OH departments in the hospitals issued medication to staff, the records are reliant on employees reporting back to the OH department with feedback after consultation in either family medicine or casualty,

which did not always occur. This is not, therefore, an issue of compliance as regards reporting as it is not compulsory, but rather an issue of not being able to keep accurate records regarding the total health of employees. The OH department is thus unable to accurately determine if sickness is caused by the workplace or if staff are fit to work within their area or job requirements. This could lead to serious repercussions when staff only attend for work related illness in the advanced stages, or when staff engage in long term sickness absence, which could have been addressed early in the illness or injury stage by being aware that staff are under treatment.

No research has been done in the last five years by 100% (n=7) of CHCs, while in the hospitals 87.5% (n=7) reported that no research had been done, with one participant indicating she did not know if any had been done. The NDoH guideline (2003) states that OH services should be involved in relevant research to evaluate efficacy of research and determine trends, and to implement research recommendations for best practice.

Statutory records and reports were kept by four (50%) hospital OH departments and three CHCs (37%). The records they indicated they kept were TB and records of radiological exposure (hospitals only), and any other notifiable infectious disease. Only one hospital OH department kept radiological records, while the others were kept in the radiological department as this was an inspection requirement.

100% of CHCs indicated that no health records were compiled for new staff whereas 75% (n=6) of hospitals created them. Health record in this study refers to an OH file with a pre-employment/pre-placement medical surveillance completed in and by the OH department. 25% of hospitals did not create health records for new employees. A medical history was taken by the six hospitals, but a physical medical examination was done by only three. No medical surveillance, such as full biological screening, was done with tests such as spirometry or audiology also not being done. The main explanation behind this was a lack of equipment, lack of risk assessment per job category, no HRA to indicate what testing needed to be done

and a lack of staff trained to do testing - "There's no equipment or budget for it so why bother with doing the training?"

According to the NDoH guideline (2003), the process of auditing is the monitoring of performance against predetermined standards and can ensure that resources are being used to maximum effect.

Hospitals indicated that 100% (n=8) were audited, while 71% (n=5) of CHCs also indicated they were audited, and 29% had no audit. Feedback was provided to six (75%) hospitals from various audits. Two hospitals were audited by the Gauteng Department of Health; two were audited by the DOL (this only audited risk assessment documents and electrical compliance) of which one failed on both points; Ekurhuleni Environmental Department audited four hospitals – two were for environmental factors such as ventilation and lighting, one was for the food standards in the kitchen and the fourth was for disaster and emergency management. Germiston Central Office audited two hospitals as regards environmental factors. Three hospitals were audited according to compliance with National core standards (NCS), with one OH department achieving a 96% compliance rating. Another hospital audited for NCS compliance passed, with percentage unknown, but that is the hospital OH department that indicated that there was no equipment and minimal immunisation due to budget constraints. No feedback was given to the participant.

Audits were done in 71% of CHCs (n=5), while two (29%) were never audited. Three of the five hospitals were audited by the Germiston Central District office, who audited if needle pricks had occurred, any incidents and incidences of TB. Ekurhuleni environmental officers audited two CHCs for environmental factors such as waste handling and sharps container disposal and storage. One CHC had a NCS audit but did not receive feedback.

100% (n=8) of hospitals indicated they had an internal audit tool but this differed from site to site, and in five of the eight hospitals it was a health and safety representative checklist, which was not standardised across all sites. The

remaining three hospitals had their own checklist that had been devised for OH inspections, but included environmental, infection control, quality and OH factors.

In the CHCs, one participant did not know if there was an internal audit tool while another never engaged in audit activity. The remaining five CHCs (71%) used an audit tool from the Germiston District Office, with one also using an Ekurhuleni document. The tool from the District Office included monitoring for needle prick injuries, incidents, TB, environmental factors such as ventilation, lighting, infection control and sharps disposal.

Standards are an expression of performance requirements, expectations and thresholds in writing relevant to specific measures that will be used to determine performance (OPM online website, undated). Key Performance Indicators (KPIs) are quantifiable measures that aid in gauging the efficacy of business unit functions and processes important to achieving organisational goals. They are linked to a unit's strategic goals and help mangers to assess if they are on target (Reh, 2017). KPIs are the measures by which a unit will determine its performance as related to its set standards.

100% of hospitals indicated that they had OH department standards, but only 37.5% (n=3) had measurable KPIs and 37.5% (n=3) had targets. 62.5% (n=5) indicated that they had no KPIs or targets by which to measure their standards. The CHCs had no OH standards, KPIs or targets so no OH performance measurement. One hospital had a file with standards, KPIs and target that she could show me, and the others couldn't provide evidence of standards. On hospital participant verbalized that the standards, KPIs and some targets were not formalised but were "...written in my diary".

4.2.2.2.7 Research

Research and the study of existing research, in order to deliver evidence-based high quality practice, are of paramount importance. It also aids in decreasing variations in practice. The OHNP should engage on a regular basis in reading research records, reports and literature to guide his/her practice. By gathering statistical evidence within the workplace, the OHNP can generate epidemiological

studies to present to the workplace employees and management (Acutt and Hattingh, 2011). These can be used to maintain successful practice and modify practice which is not working or insufficient. It can also determine the need for specific OHS focus.

Table 4.18: Research

Question	H 1	H 2	H 3	H 4	H 5	H 6	H 7	H 8	C 1	C 2	C 3	C 4	C 5	C 6	C 7
Have there been any research projects in the last 5 years as regards OH?	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Table 4.19: Research - A comparison between hospitals and CHCs

QUESTION	HOSPITALS (n=8)			CHCs (n=7)		
	YES	NO	DK	YES	NO	DK
Have there been any research projects in the last 5 years as regards OH?	0%	100%	0%	0%	100%	0%

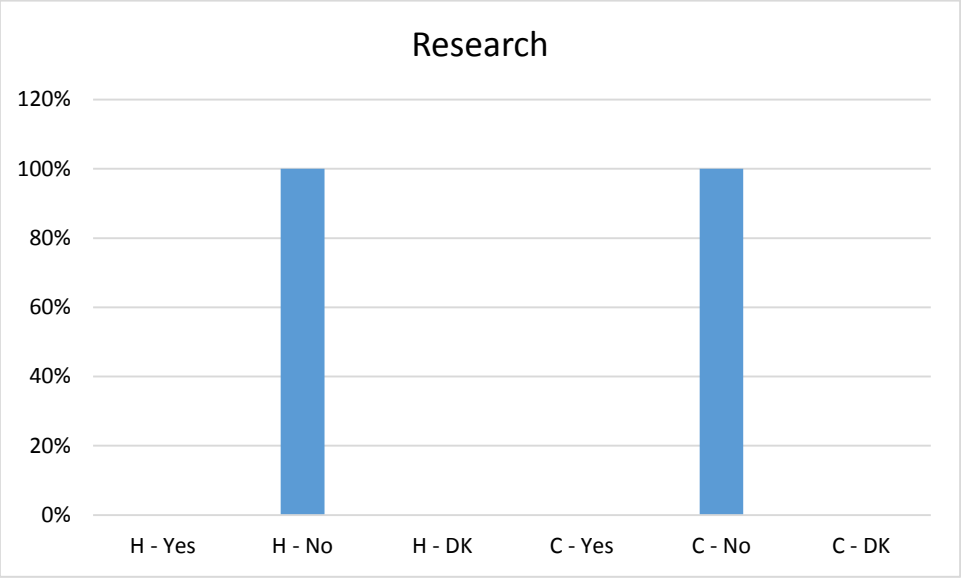

Figure 4.8: Research - Comparison between Hospitals and CHCs

4.2.2.2.7.1 Summary of Findings: Research

One hundred percent of CHCs and hospitals indicated that no research on OH has been done in the OH facilities. No epidemiological studies had been done either.

4.2.2.2.8 Special Programs

Table 4.20: Special Programs

Question	**H1**	**H2**	**H3**	**H4**	**H5**	**H6**	**H7**	**H8**	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**
Are there special health program offered to employees? :															
HIV/AIDS	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
Tuberculosis	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Chronic Disease Management	Y	N	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y
Employee Assistance Program (EAP)															
Is there an EAP?	Y	Y	DK	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
Is there a policy on employee health?	Y	Y	DK	Y	N	Y	Y	Y	DK	N	Y	N	Y	Y	N
Is stress potentially caused by the workplace addressed?	Y	DK	N	Y	Y	N	Y	Y	Y	Y	Y	Y	N	Y	Y
Is stress included in the risk assessment for each employee?	N	N	N	Y	N	N	N	N	N	N	DK	N	N	DK	Y
Is there a training program for stress awareness and coping strategies?	Y	DK	N	Y	N	N	Y	Y	Y	Y	N	N	Y	N	Y

Table 4.21: Special Programs - A comparison between hospitals and CHCs

QUESTION	HOSPITALS (n=8)			CHCs (n=7)		
	YES	NO	DK	YES	NO	DK
Are there special health programs offered to employees? :						
HIV/AIDS	100%	0%	0%	86%	14%	0%
Tuberculosis	100%	0%	0%	100%	0%	0%
Chronic Disease Management	87.5%	12.5%	0%	71%	29%	0%
Employee Assistance Program (EAP)						
Is there an EAP?	87.5%	0%	12.5%	86%	14%	0%
Is there a policy on employee health?	75%	12.5%	12.5%	43%	43%	14%
Is stress potentially caused by the workplace addressed?	62.5%	25%	12.5%	86%	14%	0%
Is stress included in the risk assessment for each employee?	12.5%	87.5%	0%	14%	57%	29%
Is there a training program for stress awareness and coping strategies?	50%	37.5%	12.5%	57%	43%	0%

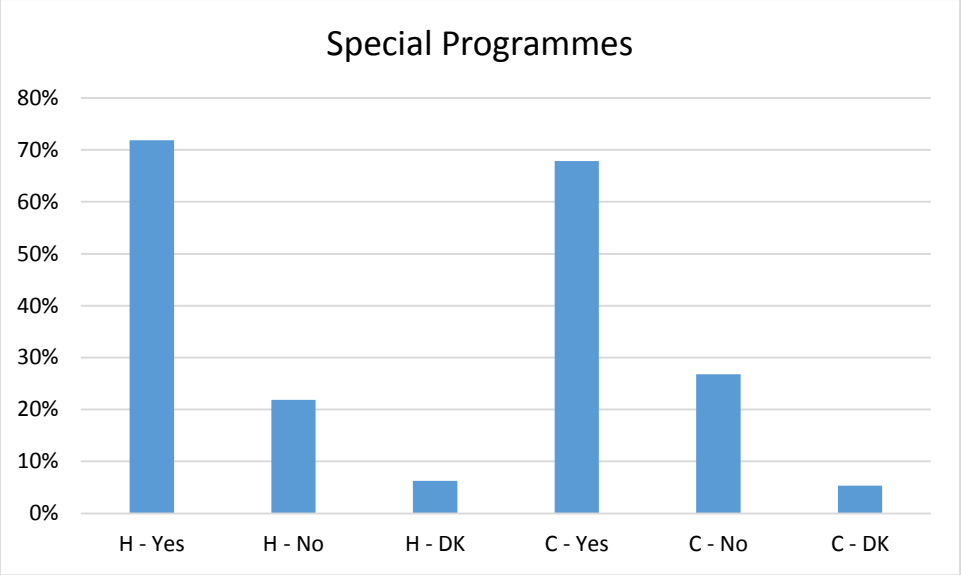

Figure 4.9: Special Programs - Comparison between Hospitals and CHCs

4.2.2.2.8.1 Summary of Findings: Special Programs

Special health programs in the workplace, as part of a broader workplace health promotion program, should focus on primary, secondary and tertiary prevention of non-occupational as well as occupational disease. Primary prevention aims, through the process of risk reduction, to prevent the occurrence of a disease and/or injury; secondary prevention is aimed at early identification and treatment; tertiary prevention aims to slow disease progression and reduce consequences of the disease. Apart from early detection and prevention of disease, such as diabetes and hypertension, tertiary prevention should also be included in these programs by regular monitoring. HIV/AIDS prevention and management is also a very important component of workplace health promotion. Other health problems that could be included in workplace wellness programs include stress, substance abuse, depression and musculoskeletal disorders. Workplace policies can reduce harmful exposures and can support health promoting programs (Grainger, 2011). Providing these special programs in the workplace reduces employees taking days off from work to attend to their chronic conditions, and also could reduce sickness absence through early intervention strategies.

100% of hospitals had programs for HIV/AIDS and TB, while 86.5% (n=7) had chronic disease programs with 12.5% (n=) indicating they had no program for

chronic diseases. The CHCs indicated that 86% (n=6) had an HIV/AIDS program for employees while 100% (n=7) offered programs for TB, with 71% (n=5) offering programs for chronic diseases. All CHC employees were able to receive TB treatment at their workplace if they felt comfortable with accessing it there. 14% (n=1) of CHCs had no HIV/AIDS program and 29% (n=2) had no chronic service program for employees. Four (57%) of the CHCs reported that GEMS medical aid came to their site, at least annually, to offer HIV testing and counselling; blood pressure, cholesterol and glucose testing and various health talks. Six of the seven CHCs indicated they were expected to access their own Doctor for chronic condition monitoring and treatment. Four hospitals (50%) also made use of the GEMS service. One hospital (12.5%), referred its employees to the local government clinic for chronic services and HIV treatment, after they were seen in casualty.

The NDoH guideline discusses the fact that the health care environment has many challenges, such as workload and the work environment, which can be an enormous stressor to those employed there. The OH services should develop proactive and reactive programs to deal with stress related problems. Stress related issues should be included in the risk assessment, and recommendations for remedial action should be adopted to minimise stressors. Furthermore, training on stress awareness and coping strategies should be available to all personnel, and a referral system should be in place where such skills were not available (NDoH, 2003).

87.5% (n=7) of hospitals indicated that they had an EAP, while 86% (n=6) of CHCs did. One hospital and one CHC did not have an EAP. H4 and H5 indicated that they used PROCURE as part of their EAP to which they referred employees with psychological problems. H2 referred psychological problems to ICAS. One (14%) CHC also referred to ICAS should staff need psychological and financial counselling. Four hospitals had a psychologist onsite who saw employees, with two hospitals using the social worker for employee wellness. 12.5% (n=1) of hospitals did not know of an EAP program for employees, while 14% (n=1) of participants from the CHCs had no EAP access. Four (57%) of the six CHCs that

indicated that they had an EAP referred their employees to the Germiston Central Office.

75% (n=6) of hospital participants knew of a Policy for employee wellness/health, with one (12.5%) responding that they were not aware of a policy and another (12.5%) said there was no policy. Of the CHC participants, 43% (n=3) indicated they had a policy on employee wellness, with the same number (n=3) indicating they had no policy. One CHC participant (14%) did not know if there was a policy on employee health.

Participants at 62.5% (n=5) of hospitals, felt that stress potentially caused by the workplace was addressed, while 25% (n=2) did not and 12.5% (n=1) did not know if it was addressed or not. The CHC participants indicated that 86% (n=6) felt that stress was addressed, while 14% (n=1) did not. In 87.5% (n=7) of hospitals stress was not included in the risk assessment for each employee, while 12.5% (n=1) said it was included. 14% (n=1) of CHC participants said stress was included in risk assessments for employees, while 29% (n=2) did not know, and 57% (n=4) said stress was not included.

Fifty percent (n=4) of hospitals felt there was a training program for stress awareness and coping strategies, while 37.5% (n=3) felt there was not and 12.5% (n=1) did not know. In three of the four hospitals that replied in the affirmative, the training was done by the social worker at least annually with one offering quarterly training. PROCURE went to the hospital annually to provide talks on stress and resilience at two of the hospitals. In all (n=8) the hospitals unit management identified stress in employees working there and referred them to either the wellness co-ordinator or the OHN. Fifty seven percent (n=4) of CHC participants indicated there was a training program for stress awareness and coping strategies, while 43% (n=3) did not. The CHCs indicated that training on stress was offered at the District Offices but only one or two people at a time could access the training and then they were expected to give feedback to the clinic staff, which all participants at the CHCs indicated was not ideal. One participant from the CHCs verbalised, “We don’t even get debriefing to maybe cope with our own stress or work related stress.”

The illustration of data via tables, analysis and the summary of findings pertaining to Section A of the semi-structured is concluded.

4.2.3 Semi-structured Questionnaire - Section B Narrative Analysis

As previously discussed in Chapter 3, content analysis of narrative, non-numeric data involves a process of integrating, synthesising and reduction of such data into themes and categories through a coding process (Brink, van der Walt, van Rensburg, 2012). The method of analysis chosen for the current study was Mayring's Content Analysis, which makes provision for the inclusion of quantitative and qualitative factors.

The open questions from Section B were categorised according to each question and response content. The focus was on the construction of categories and did not include a thematic analysis of content. The major categories were derived from the question itself, such as; Question 1 – "what is your background and understanding of OH..." – "background" was taken as a category and "understanding" as a second category. Subsequently, the answers from each participant formed sub-categories. Through the process of unitising, segments of text of interest to the analysis were systematically distinguished by highlighting them in differing colours, with similar answers being the same colour as each other, which was then followed by a process of categorisation. A summary of findings based on information in the categories relating to the research question followed. The process of inferencing – drawing of conclusions from the research – follows in chapter 5.

The results of categorisation and summary of narrative content are illustrated in the tables below.

4.2.3.1 Section B: Question 1 - "Please tell me about your background and understanding of occupational health."

Table 4.22: Categorisation for Question 1

Category	Sub-category	Categorization rule
Background	Formal training in OH.	Any training relating to OH included.
	Reason for appointment in OH post.	Organisational reason for appointment.
Understanding		Personal understanding of OH.

Table 4.23: Summary of Results - Question 1

Category/sub-category	Hospitals (n=8)	Clinics (n=7)
Background	Six participants are Registered Nurses. Three of the six have an additional qualification in OH. One participant was an Enrolled nurse tasked with wellness. One was an Environmental Officer tasked with the OH function.	All participants are qualified Registered Nurses with no additional qualification in OH.

Category/sub-category	Hospitals (n=8)	Clinics (n=7)
Reason for appointment	Two participants responded to advertised posts and were offered the posts. One participant was placed in the position as he/she had a qualification and worked on the mines and in TB hospitals. Two participants verbalised: “no-one else was willing to do the job.” One participant, whose experience is in medical wards, with no formal OH qualification, was given a directive from the CEO to be the OH nurse. One participant responded – “I was delegated to OH as I was an HIV/AIDS activist.”	All participants (n=7) indicated that as they were clinic managers the responsibility for any OH fell on their shoulders.
Understanding	The three hospitals where the staff has additional OH qualifications gave comprehensive answers that included risk management, accident and illness management, vaccinations, counselling, wellness and health education and safety committees. The hospital where an Environmental Officer runs the OH indicated that she had “not much knowledge on the health/nursing side, but if you are doing environmental health then you must do OH.” One participant, who was not a Registered nurse, indicated, “My duties are wellness and in my role I’m assisted by infection control and OPD.” One participant mentioned the OHS Act and that she was supposed to work according to that but could not provide detail.	Three of the seven CHC participants could not provide an answer. Three of the CHC participants felt it had to do with wellness of employees. “No OH structure or system of OH for staff and there’s nobody onsite that has that knowledge.” “Must be safe from hazards, disease and injury.” “Should be screening for TB and pre-employment medicals and IODs – should be in a Policy.” “Needle pricks and staff injuries.”

4.2.3.2 Section B: Question 2 - "Please tell me about aspects of the occupational health program at this health care institution that you believe are working well?"

Table 4.24: Categorisation for Question 2

Category	Sub-category	Categorisation rule
OH Program: Aspects working well	Immunisation Needle pricks IOD Risk management/ prevention of occupational injury and disease OH consultation Special Programs – promotion of wellness General	Inclusion of any aspect relating to the components of the NDoH guideline for an OH service: Promotion of wellness, prevention of occupational injury and disease, occupational hygiene (risk), OH consultation process, administration e.g. policies and procedures, research, special programs – HIV/AIDS, TB, chronic services, EAP and clinic services – PHC.
OH program: Factors contributing to aspects working well		As above.

Table 4.25: Summary of Results - Question 2

Category	Sub-category	Hospitals (n=8)	Clinics (n=7)
OH program: aspects working well	Immunisation	Four participants (H1, H4, H5, H6) felt their immunisation program was functioning well – offering Hepatitis B and influenza vaccination. One did bloods for immunity.	
	Needle pricks	Four participants (H1, H5, H6, H7) reported that they felt their needle prick training and reporting of needle prick injuries was working well.	
	IOD	Two participants reported that their IOD reporting (H1, H7) and follow up system worked well. These were the same participants that reported their needle prick training and injury reporting was working well. Hospital H7 indicated that it worked well because protocols were in place, and staff were aware of them.	C2 reported their IOD reporting worked well.
	Risk management/ prevention of occupational injury and disease	One hospital (H8) indicated that he/she engaged in risk assessments on all the wards and provided education to staff on risk. This promoted early intervention in illness. Family medicine supported him/her, by promptly seeing any cases. He/she also gave monthly OHS training on all the units. One hospital (H5) indicated their PPE program was running well, with sufficient supplies, and the OHN gave regular education to staff on the importance of wearing PPE. Three participants (H4, H5, H8) participated in monthly site walkthroughs while one of them did daily inspections. One participant (H4) indicated that the OHS committee met monthly to discuss the safety representative's inspection reports. Two felt their medical screening/surveillance (H4, H5,) programs worked well with baseline medicals being done on all new employees.	C5 felt infection control was good in the CHC. C2 felt that accident and incident reporting, needle prick management and PEP packs post-exposure worked well.

Category	Sub-category	Hospitals (n=8)	Clinics (n=7)
	OH consultation	H3 and H5 indicated that they received support from management who engaged in discussion as regards OH needs and programs in the facilities. One facility reported they engaged with HR and management monthly to discuss OHS (H5).	
	Special Programs – promotion of wellness	Health promotion – H1 went out to see employees at home if they were off for long-term sickness. Six participants (H2, H3, H4, H5, H7, H8) reported they had wellness programs to address TB, HIV/AIDS and health education e.g. diabetes, hypertension. H8 had a Registered nurse that ran programs for HIV/AIDS, TB and STIs in collaboration with the social worker who ran the EAP, debriefing and drugs and alcohol counselling. Two hospitals (H3, H5) had a wellness co-ordinator.	C7 indicated that the counselling service for staff worked well onsite with a Doctor available for medical review
	General	"At the moment, I wouldn't say anything is really working (H2)". H4 reported that all programs "were working well, but not 100% due to key performance issues.	C3 and C6 reported "nothing is working well" C1 reported "None" were working well.
OH program: factors contributing to aspects working well		Answers given included: "- Qualified OHNPs who have knowledge" - Management support - Sufficient range of staff -"Education is given to employees" - "Procedures in place"	C2 and C5 indicated that it was due to good management that the programs ran well C7 felt it was because onsite services for staff were available.

4.2.3.3 Section B: Question 3 - "Please tell me about any problems you encounter that make it difficult to offer a comprehensive OH service in this health care institution."

Table 4.26: Categorisation for Question 3

Category	Sub-category	Categorisation rule
Problems causing difficulty in offering a comprehensive OH service	Policies Budget Equipment Staffing Facilities General	Inclusion of any aspect causing difficulty, which could have a bearing on comprehensive services, relating to the components of the NDoH guideline for an OH service.
Steps taken to resolve identified problems		Inclusion of any steps taken to resolve problems identified in the first category of this table relating to the components of the NDoH guideline for an OH service.
Opinion on what should be done to resolve problems	Policies Budget Equipment Staffing Facilities General	Inclusion of factors relating to the components of the NDoH guideline for an OH service that referred to resolving of problems.

Table 4.27: Summary of Results - Question 3

Category	Sub-category	Hospitals (n=8)	Clinics (n=7)
Problems causing difficulty in offering a comprehensive OH service	Policies	No Policies to act as guidance and educate about OHS – reported by two hospital participants (H2, H7).	Two facilities (C6, C7) raised concerns that there were no OHS policies.
	Budget	"No OH budget from Central Health" (H8). H8 – "They can give all the departments a budget but for occupational health and safety they do not allocate a budget." H4 – "No budget for OH…we have to rely on other departments' budgets. We were told by Province that there is no budget next year either." H5 – "Sometimes we will have a problem whereby the government does not have budget so the hospital will have to reduce our budget.	
	Equipment	H5 – no PPE – poor audit results as regards PPE. H4 – "no equipment like scales and fridges."	C5 – "… lack of resources."

Category	Sub-category	Hospitals (n=8)	Clinics (n=7)
	Staffing	Four facilities (H1, H2, H3, and H4) reported that no qualified OHN/ OHMP onsite was a problem. H1 - “No co-ordinator for wellness services.” H6 – “HR not sending new employees for pre-employment.”	C3, C5, C7 - No qualified OHN C6 – “…no OHN or OH Doctor to face issues directly.” A lack of trained personnel and resources was reported by two CHCs (C3, C6).
	Facilities	No wellness centre providing all services onsite – reported by two facilities (H7, H8). No equipment reported as a problem by three hospitals (H4, H5, and H7). Outdated facilities (H4).	
	General	No organisational structure for OH – two hospitals reported this. (H4, H5) “There is a Policy but staff do not report injuries timeously.” (H5) H1 – “I think managers think those programs are nice to have… They report, we have this and that but on a practical basis there’s nothing…we end up doing jobs we are not supposed to.”	

Category	Sub-category	Hospitals (n=8)	Clinics (n=7)
	Services	Not able to provide PHC (H8). No money to offer services.(H5)	C1 – No EAP and no OH service. "We are not aware that we must have these services – it needs to be done but the message has not come from the top down." C2 – "...we are not taken good care of…must go to our own Doctor to do medical." C2 – "… there's no stress relief management… no debriefing... we carry the patients baggage." One facility (C6) in which there were employees falling under Gauteng Health and those falling under EMM reported that there was no integration between the two, with fragmentation of services for staff.
	OH consultation	H5 – "management don't come to meetings" and "reps do not attend scheduled meetings."	
Steps taken to resolve identified problems		H4 – "What I can say is nothing is being done. I submitted a request and a letter to management …. they say they are doing something about it but it's going on a year now." H3 – "... through the OHS committee…learned a lot like evacuation drills and health promotion through posters."	C1 – "I'm attending a management course…includes OHS." C1 - "management are looking at establishing an EAP."

Category	Sub-category	Hospitals (n=8)	Clinics (n=7)
Opinion on what should be done to resolve problems		H1 – "need more staff for different programs – Co-ordinators for PHC, OH, EAP and HIV/AIDS/TB, COID clerk" – "That will show our staff are well taken care of." H2 – "External providers for ergonomics, fire drills…The physio is overwhelmed with patients…she did provide training but I haven't seen her for a while". "Must have OHS personnel. Appoint an OHN, OHMP, social worker and a psychologist. H2 – the DOH should update policies that have to be followed. H4 – "Occupational Health is not recognised… we don't have an org structure. It will be nice if the Department (of Health) can recognise occupational health and take the OHS of members (employees) into consideration…. it's a high-risk environment and they need the services." H8 – "…OHMP allocated full-time…Maybe they can take the occupational health and safety seriously and show they are caring about the employees because without the employees this ship is sunk."	C1 - "Management are coming back from meetings and sharing info…..we are saying we need people involved in these services in the facilities. ... we need to have occupational health because we are demoralised, demotivated…a lot of challenges." C1 – "we need services closer to our staff members….District are dealing with many facilities so it takes time to come to us….bookings must be faster." C1 – In-service training on Policy and EAP. "… we don't know because we are not told." C2 - "Qualified OHN to train us." C2 - "More emotional support" C3 – "…need a specific occupational health person to do medical surveillance…not fragments services…here and there…" C4 – "… a staff wellness clinic… all newly employed staff should have medical surveillance…to feel supported." C6 – "DOH should give information to employees. Trained occupational health staff needed. … provide immunisations."

The answers from Section B, question 4 were included into the above table under the categories of relevance.

4.3 Summary

In this chapter the data analysis methods, results and findings and a summary pertaining to this was presented. The findings of this study were found to be consistent with findings related to OH in health care facilities nationally and internationally. Data findings were illustrated in the form of tables followed by a written summary of findings relating to presented data. In the following chapter the main findings and the summary thereof will be discussed, together with conclusions derived from findings. The limitations of the findings of this study will be given and recommendations for nursing education, nursing research and practice, policy and for the institutions who manage the facilities in the study will be presented.

Chapter 5 Summary, Discussion of Findings, Recommendations, Limitations, and Conclusion

5.1 Introduction

This chapter presents a summary of the main findings and a discussion thereof, the recommendations, limitations of the research, and a conclusion. The analysed data from Chapter 4 was presented in tabular, graphical and written form. The summary of findings was completed in Chapter 4, thus, in this chapter a brief discussion of the findings follows.

5.2 Summary of Study and Main Findings

The nature of OH services for employees in public health care institutions in Gauteng is not well described. Anecdotal evidence, which prompted the researcher to embark on this study, indicated that public hospitals and/or CHCs in South Africa are not meeting the legal requirements or best practice guidelines for OH service delivery to workers, in all categories of risk and occupations within the hospital/clinic structure.

The purpose and objective of this study was to explore and describe the nature of OH services in selected public hospitals/community health centres (CHCs) in a selected region in Gauteng, and to assess the extent to which the services meet the nine recommended components of an OH service, as described in the NDoH Guidelines for an Occupational Health Service in the Healthcare Setting. In addition, the objective was to simultaneously explore and describe opportunities and constraints in the delivery of a comprehensive OH service.

The study was guided by the research question: What is the nature, range and extent of compliance of OH services with the NDoH's Guidelines for Occupational Health Services in the Healthcare Setting in selected public hospitals and CHCs in Gauteng?

The research was conducted in public hospitals and Community Health Centres (CHC) with an attached Maternity and Obstetrics Unit (MOU) in the Ekurhuleni Region B area of Gauteng, South Africa. A total sample of all fifteen public hospitals and CHCs was included in the study. The eligibility and inclusion criteria for the research sample pertained to one person employed in each facility whose remit it was to look after the OH of employees.

The research design utilized for this study was a cross sectional, exploratory and descriptive study, using a researcher-administered, semi-structured questionnaire, which was used as a guide for an interview process. The data collection instrument was therefore two pronged in this research study. Firstly, the researcher developed a semi-structured, researcher-administered questionnaire, based on the NDoH guidelines to guide the interviews of participants and determine compliance to specific factors (NDoH, 2003). Secondly, the researcher as the research instrument, engaged with participants in an interview process, the content of which was digitally recorded and subsequently transcribed verbatim.

The method of analysis chosen for the current study was Mayring's Content Analysis (2014), which makes provision for the inclusion of quantitative and qualitative factors. The semi-structured questionnaire was divided into two sections. Section A. contained closed questions from which answers were analysed via descriptive statistics, and Section B. consisting of open questions which guided the interview process. The narrative transcription was analysed through a process of categorisation of content, according to Mayring's methodology. The focus was on the construction of categories and did not include a thematic analysis of content. The major categories were derived from the questions themselves.

Overall, the findings from all components included in this study, illustrate that the hospitals fared better as regards OH services offered to staff than the CHC's and that in the hospitals where there are qualified OH staff, services are more compliant to OH requirements, with a wider range of services being offered. A main reason for this is the lack of specialist knowledge about OHS in general, in that there is a general lack of awareness of what OH entails; thereby leading to a

lack of knowledge about what services they should be receiving from their employer and/or offering to their employees.

5.3 Discussion of Findings

The sections that follow under 5.3 were condensed from the eleven headings found in the NDoH Guideline booklet (NDoH, 2003) according to which the questionnaire was formulated and condensed into four headings for comprehensive discussion purposes namely: Policy and procedure, Programs for staff members, Management of OH services and Education and awareness.

5.3.1 Education and awareness

Participants from the CHCs all indicated that there was no formalised consultation program, as there was neither OHMP nor an OHNP, and unions did not factor onsite. There was consultation between various stakeholders at the majority of hospitals, with safety representatives playing a significant role. Lack of qualified OH staff played a key role in the non-compliance with the consultation process requirements.

The NDoH guideline (2003) states that OH services should be involved in relevant research, to evaluate efficacy of research and determine trends, and to implement research recommendations for best practice. Both CHCs and hospitals are non-compliant as no research has been done by the OH departments in the last 5 years. All rely on directives from the DOH for evidence of new or changing practices.

There was a serious lack of insight into the components of an OH program, especially in the CHCs, which fits in with the findings of the research thus far, where CHCs are neglected in all nine components of the NDoH service guidelines. Only three hospitals could give a fairly comprehensive discourse of the components of an OH program. The finger should be pointed at the NDoH and Provincial health authorities for not having standardised systems and policies in place to educate staff on OH in their workplaces. There is no education of facility managers on the requirements for appointing OH qualified staff. Management are

not coming to the table and including budgeting for vaccine programs in their strategic and financial plans. In agreement with the findings of research conducted in three Free State hospitals by Janse van Rensburg et al., (2016), which was discussed in the literature review, there is a culture in public hospitals of accepting OHS risk, with little being done to address this.

As discussed in the literature review each company/employer, according to the Occupational Health and Safety Act No. 85 of 1993, (RSA, 1993) as amended, should be responsible for the health and safety of its workers while at work. All reasonably practicable measures to safeguard the health, safety and well-being of workers in the workplace must be taken. An overview of all findings is that the employer, of those employed in the public health facilities in the study, is not meeting legal requirements to safeguard the health, safety and well-being of workers in the workplace, nor is there compliance with most of the requirements in the NDoH's Guideline.

5.3.2 Policy and procedure

All hospital and CHC participants were aware of the Gauteng Department of Health's 2008 Policy. This Policy makes provision for TB, HIV/AIDS, Needle prick injuries and Hepatitis B programs. (DOH, 2008). As we understand from the literature reviewed for this study, OH cannot be limited to solely these factors, but it is frequently the case that it is. Participants were aware there was a Policy but often did not know what its contents were, or if they did, their knowledge was very limited. This Policy does not make provision for OH programs such as EAP, medical surveillance, risk management, health promotion and clinic programs as discussed in the NDoH's guideline booklet. Of vital importance to the findings in this research study, was the finding that not one of the participants was aware of the NDoH's guideline booklet, even though it has been in circulation since 2003.

Well-developed policies and procedures include the following benefits for the workplace: employees know or are aware of what standards of performance are expected; there are set guidelines and rules for expected behaviour and standards; there is a set framework for decision making delegation and there are means of communication of expectation (Power, 2012). A policy is only as good as

its application, implementation, monitoring and adaptation. The problem, as evidenced by the findings in this study, suggests that even though policy exists it is limited in its scope, and it has not been communicated adequately to facilities, nor has the importance of awareness of its application been communicated.

Only two facilities out of the fifteen had an OH policy and service plan. Policy and Service plans serve to standardise expectations of service level and inform practice, and can serve as a benchmark against which services can be measured for compliance. The Policy and Procedure manual is a legal document and management instrument that reflects the framework for implementation of the health services' objectives, and describes the scope and nature of departmental responsibilities (Acutt and Hattingh, 2011). The lack of policy and service plans could be an explanation for the lack of standardised practice, poor service levels and a generalised lack of knowledge pertaining to OHS in the majority of the facilities included in this study.

The NDoH Guideline states that there must be clear policies relating to sickness absence with which the majority of facilities were compliant. There must be a good record system and communication between management, HR and the OH services departments. Trends should be identified, monitored and discussed with management and labour representatives. The findings of the current research study indicate that the participants in the OH role had no input or involvement with sickness absence monitoring, and were not aware how records were kept or what tends showed as no feedback was given, so were non-compliant with guidelines.

5.3.3 Programs for staff members

Perhaps the most distressing finding of the study was how little is done for the staff members in both the hospitals and the CHCs in terms of their occupational health. Apart from there being legal requirements to protect the health of all workers, employers have a moral obligation to do so too. When one considers that the staff members are themselves employed to care for the health needs of their patients, it is incomprehensible that their health needs do not seem to be a priority with the managers of the health care services.

The NDoH (2003) Guideline gives the following as examples of what activities are often called for as regards health promotion in the workplace: screening programs to detect the need for lifestyle changes, substance abuse programs, smoking cessation, healthy eating programs, stress recognition and management programs and general health and safety issues. In the majority of facilities these programs were not available, thus they are not compliant with guidelines. Health promotion measures mentioned were: TB education, infection control, HIV/AIDS education and testing, and GEMS medical aid attending the site in four facilities annually to do health screening.

From the findings, it was shown that the hospitals had better health promotion services for employees than the CHCs. The CHCs enjoyed minimal access to any form of health promotion measures. The hospitals that had a health promotion policy, had formulated their own policy and there was no standard policy available to all facilities, thus the difference in the scope of health promotion.

No medical surveillance, such as full biological screening, was done, with tests such as spirometry or audiology also not being done. The main explanation behind this was a lack of equipment, lack of risk assessment per job category, no HRA to indicate what testing needed to be done and a lack of staff trained to do testing. Lack of budget and equipment seems to be a common theme for non-compliance.

No aspects of medical surveillance were compliant in any of the facilities. The hospitals evidenced a small level of compliance regarding requirements pertaining to medical surveillance, but in the majority that had such a program, it mainly covered new and not existing staff. There was no recall system for planned annual medical surveillance, nor were exit medicals completed on all staff. No facilities engaged in screening/testing for spirometry or audiometry, with biological monitoring being reduced to TB sputum screening and rarely Hep B immunity testing. The OHSA No. 85 of 1993 (RSA, 1993) as amended, states that medical surveillance is a legal requirement, whenever an individual is exposed to health risks at work. So, not only are the employers of the CHCs and hospitals in the

study not compliant with NDoHs Guidelines as regards OH in these facilities, but they are not legally compliant either.

Only four of the fifteen facilities in the study offer support and rehabilitation program for those returning to work after long term illness/injury, hence there was a general dearth of support and compliance with NDoH Guidelines, across the board, for the majority of the facilities in this study. A planned, well executed return to work process has been found to have substantial positive benefits for employees' rehabilitation and well-being and plays a significant role in the prevention of relapses and retaining people in the workplace. Failure to offer these programs and support has been shown to be linked to poorer health outcomes and relapses, with employees experiencing feelings of poor self-esteem, social exclusion and poor mental health effects. It is important that managers are involved in the return to work process, through support and practical workplace adjustments. The OH department plays a vital role in assessing the health and capabilities of the employee and his/her ability to return to his/her former job; and the OH department should work with management to facilitate this process (CIPD, 2010).

Only one site had a comprehensive process including, an HIRA, HRA, OREPs and a medical surveillance plan. It seems as if there is no awareness in the public health facilities of the risk assessment and hazard identification process, and a generalised confusion as regards the delineation of the function of the various role players. This illustrates a dire level of non-compliance with guidelines and the requirements of the OHSA, with employees at serious risk in their workplaces due to the fact that their risk is not assessed, addressed nor sufficient programs put in place to protect them. At only one hospital the induction training was based on the HIRA and made job specific, so general risks and hazards were discussed at induction, but in-service training was also given on a risk per job category basis in the actual departments to which they pertained. The rest of the facilities were non-compliant.

Without the identification and quantification of risk contained in a Hygiene Survey the HIRA and HRA are non-compliant, nor completely relevant to a specific

workplace, as one cannot generalise about risk and their effect on health if no measurements are available to rate that risk. The results in this section of the research may not be accurate, as there was a generalised confusion about the hygiene survey, HIRA and HRA, with no one site giving the same answers as another. It is unknown whether or not there is a policy or procedure manual for this process and its requirements. Once again, the lack of standardisation of expected process to be followed plays a significant role in non-compliance.

All facilities were non-compliant as regards providing MSDSs for all chemicals and hazardous substances onsite. Legislation requires that control measures are in place for all hazardous exposures. The MSDS explain control and safety measures and treatment in case of exposure. If these are not available, then there is negligence on the part of the employer, as was found in all facilities.

The NDoH's guideline (2003) states that employers in the Public Health Sector have a duty of care as regards providing an immunisation program for employees to protect them from infectious diseases in their workplace.

The remit and content of the immunisation programs in all facilities was very limited. The findings illustrate that the hospitals and CHCs are falling far short of the NDoHs' guidelines. The findings illustrate that in these facilities employees are not being adequately protected from infectious agents that have the potential to cause serious illness and even death. The main contributing factors seem to be a lack of budget allocation for immunisation programs, in conjunction with a lack of policy or procedure, guideline provision and a general lack of knowledge as to employee rights to be protected. All participants showed a lack of knowledge on what the immunisation programs in the healthcare environment should include.

There does not seem to be standardisation of a management system as regards occupational injury and disease, as when questioned the majority of participants could not explain what happens to employees once a case has been reported, and felt it was the function of management, the Human Resources department or the District Office. The compensation process for injury on duty and occupational diseases is mandated in the Compensation for Occupational Injuries and Diseases

Act No. 130 of 1993 as amended, with procedures and requirements explained. Non-compliance is a serious offence. All facilities indicated that serious work related injuries and suspected occupational diseases were reported to the Compensation Commissioner, which is the only aspect discussed thus far where all participants were found to be legally compliant. The NDoH (2003) states in its guideline that the OH service should take total responsibility for the management of all occupationally related disease and injuries, in compliance with legislation, and specifically the Compensation for Injuries and Diseases Act. The majority of facilities are non-compliant.

A main finding was the lack of standardisation of clinic services for staff in all public health facilities, with each facility participating in their own way with the means available to them, and even when the means seem available there is a tedious process involved in meeting the health needs of employees. The employees in CHCs are worse off in that they have a “standardisation” of services – but that standardisation consists of no services at any of them. Referring to the literature review in this study, the researcher once again asks – who is looking after the health of those expected to look after the health of the nation?

Partial compliance to NDoH guidelines as regarding access to/provision of an EAP, and the management of stress in the workplace, was found in both CHCs and hospitals.

5.3.4 Management of the Occupational Health Service

A lack of OH qualified staff was a significant finding in this study, as no facility in the study had the services of an OHMP and only three had a qualified OHNP. Three hospitals had an OHNP while the CHCs had none, and no hospital or CHC had an OHMP. These are specialist roles that lead and guide the OH function and services, and provide expert knowledge in the attainment of compliant OH services in the workplace. This lack of qualified OH personnel could be a major contributing factor in the non-compliance and lack of services in the facilities in the study.

The compliance as regards the fulfilment of the job requirements of the OH co-ordinator, in both the CHCs and hospitals, appears to be poor, as OH is frequently barely functional, and services are unequal in almost all CHCs and hospitals. Once again, results evidence poor compliance with the NDoH Guideline and thus could be ascribed to the fact that there is insufficient leadership and management of the co-ordination of services. As regards the CHCs, the co-ordination of OH services is seen to be the responsibility and remit of the District Offices, but a serious lack of any OH services, or the co-ordination thereof, seems prevalent.

All the hospitals were compliant with the requirements of the OHSA as all the safety representatives were appointed in writing, whereas the CHCs had only one facility where the safety representative was appointed in writing. Not only are the employees in the CHCs being neglected as regards their health and safety, but they are not compliant with the requirements of the Law in this respect either. The poor compliance from the CHCs could possibly be attributed to the lack of general knowledge of the legal requirements of the OHSA.

There was a general lack of compliance to the requirements of the OHSA regarding first aiders and first aid boxes, with hospitals more compliant yet again. The underlying consensus among all facilities seemed to be that treatment is available in the facilities, so first aiders and boxes are not important, and that budget was not available for training or supplies. A lack of knowledge regarding the OHSA resulted in staff being unaware of requirements regarding first aiders and first aid box provision.

According to the NDoHs (2003: 28-29) guideline, personnel health records are vitally important as the chronology of their health status, and any treatment administered should be able to be accessed for immediate reference. There was a serious lack of responsibility, especially among CHCs, regarding health files and records for staff and security protocols for storing information. No facility had the means for electronic storage of health information. There should be 100% compliance regarding the keeping of statutory health records, but this was incomplete or non-existent at all sites, which indicates a serious problem of non-compliance.

All public health facilities are supposed to be audited according to the National Core Standards yet only three hospitals and one clinic had been audited. All the facilities in the study fall under the jurisdiction of the National Department of Health yet there are such vast differences in what the facilities are audited on and who the facilities are audited by, with some never being audited. It seems as if stakeholders in the audit process do not engage with each other in a planning process, and audit by various entities seems to be partial and fragmented. There is overlapping and repetition of audits. There should be a centralization of public health facility audits, with all audits feeding into one system for one report. There is no set tool for all facilities, neither is there a feedback system to the Provincial health authority – if there is then the employees in the facilities are not aware of this.

Quality is measured according to the achieving of targets and KPIs for set standards, yet the findings in this research indicate that these standards are not the same across all facilities, with most, if there are any, being formulated by managers and/or by the OHN at the hospitals. The CHCs had no OH standards, KPIs or targets, with less than half of hospitals having KPIs and/or targets. This could be an explanation for the poor quality of OH services in the public health facilities, as there is nothing or minimal resources by which to measure performance. There, once again, seemed to be a lack of knowledge regarding this aspect of quality service delivery.

As regards special programs, such as HIV/AIDS/TB, again the CHCs are found to have less access to services than the hospitals, but this can, in a measure be attributed to the fact that the hospitals have a casualty and more medical doctors that are available to staff.

5.3.5 Constraints and opportunities

Hospital participants indicated that factors that contributed to the aspects working well included: qualified OHNPs with knowledge, supportive management, sufficient range of staff, employee education and procedures in place. From the discussion of findings so far, it can be ascertained that all these factors are required, but very few facilities can say they experience them.

The CHCs did not give much input into why programs were working well, as realistically they are not. What they did indicate, however, is that aspects working well are due to good management and the availability of onsite services for staff. This is ironic as findings evidence a severe lack of OH services for employees in CHCs.

A further aim of the research was to explore and describe the opportunities and constraints in the delivery of a comprehensive OH service.

Opportunities

- The majority of participants seem eager to improve the health of those employees whose health they have been tasked with protecting and improving in the workplace, hence the will is there, the employer must provide the means.
- Policy, guidelines and recommendations do exist at National level, but it seems that they are not disseminated down to facilities, and employees are not made aware of them and their requirements and guidance. If this could be addressed then OH services would be aware of expectations and take steps to implement them, causing positive improvements in levels of service and compliance.
- The infrastructure is available at all sites to provide OH clinics.

Constraints

- Although policy and guidelines pertaining to OH exist, it is neither efficiently disseminated nor effectively communicated to those expected to implement them.
- There is a lack of directives from National, Provincial and local health authorities to inform on OHS expectations and required service levels.
- There seems to be insufficient priority and accountability for OHS at all levels of management in the public health system. These findings are similar to those found in the Victoria Auditor General's Report (2013) which also found that staff were not fully informed of OHS risk.

- All facilities indicated that the lack of an OH specific budget was a major cause of the lack of services and the limited capacity for delivery.
- Poor governance of OH services was evidenced in a lack of transparency, fairness, accountability, leadership.
- A serious dearth in knowledge pertaining to OH was found, together with insufficient training and information provided for staff and management.
- There is an overall poor quality of OH in most facilities, with a lack of standards to guide practice.
- There are no reporting requirements as regards OH in the public health facilities in the study, resulting in a generalised lack of accountability.
- There is lack of qualified OHNPs and OHMPs with specialised OHS knowledge in almost all the facilities.
- There appears to be minimal involvement by management in the OH services, with poor leadership resulting in a generalised disinterest and poor service delivery.
- Resources are often not available for staff to comply with OHS policy and procedures when they do exist.
- There is no National coordinator for OH in the public health system, and so unequal services are available in a fragmented way to facilities falling under the remit of one health authority. This illustrates an aspect of poor governance.
- There is no adequate, formalised system of risk assessment which has consequences for all aspects of an OH service and causes a generalised lack of legal compliance.

5.4 Recommendations

In a memo written by Luther Gulick (1937), titled “Notes on the Theory of Organization”, he described the functional elements of the work of a CEO, with the acronym; POSDCORB which includes; **P**lanning, **O**rganizing, **S**taffing, **D**irecting, **C**oordinating, **R**eporting and **B**udgeting. POSDCORB – the structured method to analyse management activity and function. This has been widely used, historically and currently, by researchers, hence the decision to make use of it to guide the recommendations relating to the current research study findings. Although Gulick

was specifically addressing the function of the CEO, this study uses it to address health authority in general.

5.4.1 Recommendations for management

5.4.1.1 Planning

Planning involves the determination of what needs to be done, the ways to achieve this and the setting of goals to achieve the plan (Gulick, 1937).

- A strategic plan, specifically for OH services in the public health system, needs to be developed by the NDoH. This should include a strategy for education of facility management regarding the requirements for OH in public health facilities as stated in the NDoH Guideline booklet (2003).This planning should take place only once a process of needs and risk analysis/audit has occurred. Risk analyses, and workplace OH audit tools allow OH practitioners to target and allocate services to where they are needed most. The documentation of findings should be included in all organisational strategic plans.

- The achievement of strategic and operational goals can be measured in terms of their achievement of their KPI's. The findings in this study show that there are no standards, KPIs or targets upon which to base services and against which measure performance and compliance, thus, this needs to be addressed on all management levels, with the NDoH leading the way.

- Develop appropriate structures for an integrated national OHS system, including policy making, standard setting, inspectorates, dedicated research and training institutions (RSA, 2003) to address the severe non-compliance evidenced in the findings of this research.

- Develop a Quality Management system, where OHS is integrated and included in organisational corporate goals to facilitate efficient implementation, and thereby the achievement of healthy workplaces.

- Develop appropriate legislation that guides strategies to promote and monitor compliance.

- Include plans for programs that protect the health of the workforce, and concurrently ensure legal compliance, for example, comprehensive risk based immunisation programs and medical surveillance in the workplace, based on identified risk.

- Include all OH personnel in management strategy meetings, and allow for input regarding their specialist knowledge into organisational goal setting.

5.4.1.2 Organising

The formal hierarchy of authority and the definition, arrangement and coordination of the subdivisions of work (Gulick, 1937).

- In the planning of services, the hierarchy and reporting structure should be addressed, formalised and disseminated to all employees. There should be a focus on both the top down and the bottom up management structure. Divisions of work, per department, should be clear and unambiguous to ensure efficacy of services.

- Work departments which fall under the remit of OHS should be linked and their services co-ordinated, for example OH, infection control, quality, environment and safety, with each aware of the role the others play. This leads to efficacy of services, with no overlapping and wastage of time and budget.

5.4.1.3 Staffing

The maintenance of favourable work conditions, training of staff and the complete personnel function (Gulick, 1937).

- The NDoH must ensure that OH personnel job descriptions and job requirements are formulated, and only employ staff meeting the specified criteria. Management needs to be aware of these requirements.

- Management should ensure that all facilities on regards OHS in their workplace. One of the main causes of non-compliance in this study is a lack of knowledge on most aspects pertaining to OH in the workplace.

- Professionally, registered OH staff should be in post for all OH positions. This is recommended by the NDoH guidelines.

- Confidential health files should be made for all employees and kept in the OH department.

- A program of regular medical surveillance must be in place for all staff and all categories of worker, with health records kept for all.

- A risk assessment must be done for each worker, relating to his/her job description and identified risk in his/her area of work. His/her medical surveillance must be based on this as well his/her PPE requirement.

- There must be PPE available to mitigate all identified risk and protect staff from hazards in their workplace.

- Sickness absence statistics must be kept by the OH department and a program of sickness absence managed provided for in policy.

- Management must ensure that there is an EAP and that stress in the workplace is managed.

- Management should facilitate a needs analysis of the OH department to determine the need for resources and equipment, and devise a strategy to meet identified needs.

5.4.1.4 Directing

The continual process of decision making and formulation of orders and instruction, and providing leadership (Gulick, 1937).

- No institution has overall responsibility for the development and implementation of OHS Policy in SA (RSA 2003). This needs to be addressed by National health authorities with a sense of urgency, as it is this very fact that could potentially be the causative factor in the poor implementation of policy and the generalised lack of knowledge pertaining to this.

- Policy informs the objectives, procedures and responsibilities for designated functions and role players (RSA, 2003), thus as previously stated, problems regarding OHS policy needs to be addressed.

- Guideline and protocol development should include input from various parties, such as public health, health care workers, infection control, representatives from finance and administration and the OHNP and OHMP (Rebman et al., 2008) to ensure its relevance and accuracy.

- There needs to be dissemination of policy and procedure from Management, so all employees are aware of the process and legal requirements and can be adequately and correctly manged within the specifications legislation.

- Leadership should ensure that proper enforcement measures are in place, and that management should be held accountable for areas of non-compliance.

- Priorities must be set in the form of comprehensive guidelines and protocols

- for disease, and workplace illness and injury prevention.

5.4.1.5 Coordination

Interrelating of work process and entities and their coordination by superiors on the authority hierarchy (Gulick, 1937).

- The consequence of fragmentation of authority for OHS is the absence of a single national, advisory body which serves as a forum for consultation on the full range of OHS issues (RSA, 2003).

- OH services on facility level should be coordinated by management, in line with provincial and national guidelines, recommendations and policy.

5.4.1.6 Reporting

Keeping all informed through inspections, records and research (Gulick, 1937).

- NDoH must set up inspection committees to measure compliance and ensure a feedback system is in place.

- SA does not have a nationally co-ordinated OHS research strategy (RSA.2003); this could be contributing to the lack of research pertaining to OHS, in public health institutions. This needs to be addressed by Government. Findings from research could be fed into a database to inform government departments of areas of non-compliance, workplace disease profiles and so forth, to provide information by which OH system strengthening measures could be addressed. A national reporting system is an essential feature of an integrated OHS system. The national OHS Authority will be required to develop a national reporting system which builds on existing databases to allow for emerging problems to be identified and decisions to be made about the allocation of resources (RSA, 2003).

5.4.1.7 Budgeting

Financial planning to include income sources and expenditure control (Gulick, 1937).

- Fiscal planning by the NDoH should include a National, Provincial and facility OH financial needs analysis, and subsequently budget made available for identified service needs, resources and equipment. All facilities in the current study indicated a lack of budget allocation for OH service requirements caused constraints on services.

- Facility management need to ensure that OHS services are included in their budget allocation, and not just be seen as the “nice to have service” that receives excess or left over budget from other departments.

5.4.1.8 General

- OHS practice should co-ordinate with international standards through guidelines and protocols that direct practice.

- Staff safety and health needs must be given higher priority from senior management and the DOH. The South African “Health for All” strategy seems to apply to those using the public health facility, but those providing the service are forgotten.

- The tenets of good corporate governance: fairness and transparency, efficient allocation and availability of resources, effective leadership, enforceable legal and regulatory requirements, and effective leadership (OECD, 2015) must be applied with a sense of urgency by all stakeholders in the public healthcare system, to address the poor service delivery of OH to healthcare workers.

5.4.2 Recommendations for Nursing Management

- Nursing management should ensure that they are aware of the components and requirements of an OH service, and that the nursing staff in the OH unit have an additional qualification in OH Nursing.

- To ensure standardisation across the facilities, management representatives responsible for the development of Standard Operating

Procedures (SOP)/ OH manuals should submit these to their regional offices, who together with the Gauteng DOH should develop formalised documents/SOP's for dissemination and communication to all facilities within its jurisdiction. Manuals should then be developed by facility management and staff educated regarding their contents to ensure facility staff are aware of their rights and expectations of the employer regarding OH in their specific workplace. These processes should follow the guidelines and requirements as stated in the NDoH Guideline booklet. Once directives and strategy have been received from the DOH the nursing managers should collaborate with the facility management team – including those responsible for OH in the facilities – and devise facility driven dissemination of requirements to all departments. Based on this an OH program should be developed that is facility specific and education of this given to all employees. This should be included as an audit point in facility audit programs to monitor compliance.

- Nursing management should engage with management higher up in the hierarchy, in representing their facility and demanding adequate resources, equipment and guidance via policy and procedure.

- Nursing Management should ensure that policy and procedure manuals include an OH aspect, and they are available to all staff. In service-training should be provided as a means for dissemination of this knowledge.

- Management could use these findings to address areas of non-compliance in their facilities, to plan for improvement measures and to use them as a means for entering into dialogue with hospital management groups to address measures such as budget, staffing requirements, legal requirements etc.

- Nursing/facility management should ensure that the person responsible for the OH has a recognised additional qualification in OH Nursing that is registered with SANC.

5.4.3 Recommendations for Occupational Nursing Practice

- Occupational health nurse practitioners (OHNP) should be required to participate in research projects to enhance their and their peer group's professional knowledge.

- OHNPs should work within their Scope of Practice and ensure they are knowledgeable on all aspects of their specialised role.

- Engage with other OH team members to address the needs of the workforce in a comprehensive manner.

- OHNPs must engage in a proactive manner regarding health promotion and prevention strategies in the workplace. The results of this research study could be used to address identified needs and shortcomings.

5.4.4 Recommendations for Nursing Education

- Occupational Health should be included in the basic nursing curriculum as a subject not a mere module. It should include risk and hazard identification, toxicology, health promotion, illness and injury prevention, primary health care, expanded immunisation programs, disaster management, medical surveillance and management of the OHS service.

- Short courses could be devised to facilitate regular, updated training to meet the requirements of the OHN role.

- Nurse educators should encourage students to engage in research studies pertaining to occupational health.

- A module on policy, procedure and guideline development should be included in basic nursing training. One of the main findings in this research study is that there is insufficient policy, procedure and guidelines, and this, in turn, leads to non-compliance because of a lack of standardised

knowledge and expectation. If nurses have this knowledge and skill, then they could engage in this process in their own workplace.

5.4.5 Recommendations for Further Research

- It is hoped the findings of this study will be used to inform further studies on the risks faced by healthcare workers and the measures that need to be taken to improve the services in public healthcare facilities. Furthermore, it is hoped that the findings illustrate the need for an audit of these facilities, as a measure of risk analysis, and that these findings could be utilised to base OH program development upon.

- Further research could be conducted on the role of management and leadership in the efficacy of OH programs for healthcare workers.

- From the literature review it was evident that limited studies of this nature had been done, therefore a recommendation is that further research on this topic is done with a larger sample range. In addition, it is recommended that similar research needs to be conducted in other regions in Gauteng and other parts of the RSA for a national comparison and determination of need.

5.5 Limitations of the Study

Polit and Hungler (2004) stated that limitations can be seen as uncontrolled influences, conditions or shortcomings that may affect/restrict the methods and analysis of research data. The limitations identified pertaining to this study were:

- The sample size was small and not necessarily representative of the wider population, therefore, it is difficult to generalise findings to all public healthcare institutions.
- The cross-sectional design provides a picture of OHS at the time of the research and changes may have occurred.

- There is a decreased confidence in the truth of the data due to the fact that almost all the participants displayed a lack of knowledge pertaining to OHS and could thus only provide limited answers. Only three participants had a qualification in OH, thus twelve participants had little or minimal knowledge pertaining to OHS.
- Even though steps were taken to lessen potential bias and decrease subjectivity, the researcher, in the interpretation of the narratives, may have included an element of subjectivity.

5.6 Conclusion

In view of the fact that, on the international and national front, minimal research studies have been conducted regarding OHS in public healthcare facilities, the researcher decided to engage in this research study to explore the status of OH services in public healthcare facilities in one region in South Africa. The NDoH has the overall authority over public health institutions in South Africa, and therefore the researcher decided to use the NDoH Guideline document for OH Services for Healthcare Workers in the National Health Service of South Africa (NDoH, 2003), with its nine components for an OH service, as the basis for the exploration of the services. The aims were to determine compliance to the nine components and simultaneously explore and describe opportunities and constraints in the delivery of a comprehensive OH service.

The overall outcomes of the research indicated that compliance to all nine components of the guideline was extremely poor among all hospitals and CHCs in the study. The constraints and opportunities were discussed with overriding findings being found to be problems with a lack of OHS policy and guidelines, lack of budget for OH, inadequate management of OH services, lack of education and dissemination of required knowledge, poor governance and strategic planning, lack of qualified personnel and a general disinterest in OH from the top health authority down to facility level. The hospitals were more compliant and enjoyed a wider range of services than the CHCs.

This research contributed to the body of knowledge of the nature of OH services in public healthcare facilities in South Africa. The information obtained from the findings can be used to improve organisational policies and practices to address and improve the occupational health and safety services offered to employees in the high risk public healthcare institutions.

Nomenclature

AIDS – Acquired Immune Deficiency Syndrome

CCOHS – Canadian Centre for Occupational Health and Safety

CDC – Centers for Disease Control and Prevention

CEO -- Chief Executive Officer

DOL – Department Of Labour

EAP – Employee assist program

EU – European Union

EMM – Ekurhuleni Metropolitan Municipality

GP – General Practitioner

GPA – Global Plan of Action

HCW – Health Care Workers

HIRA – Hazard Identification Risk Assessment

HIV – Human Immunodeficiency Virus

HR Human Resources

HRA – Health Risk Assessment

HST – Health Systems Trust

ICOH - International Commission on Occupational Health

IHRG – Industrial Health Research Group

ILO – International Labour Organization

IOD – injury on duty

MSDS – Material Safety Data Sheets

MSP – Municipal Services Project

NDoH – National Department of Health

NIOH – National Institute for Occupational Health

NIOSH – National Institute for Occupational Safety and Health

OH – Occupational Health

OHS – Occupational Health and Safety

OHSA – Occupational Health and Safety Act

OPD – Out Patients Department

OREP – Occupational Risk Exposure Profile

OSH – Occupational Safety and Health

PPE- Personal Protective Equipment

PEP – Post exposure prophylaxis

PHC – Primary Health Care

PSIRU – Public Services International Research Unit

S.A – South Africa

SAMWU – South African Municipal Workers Union

SANC – South African Nursing Council

SASOM – South African Society of Occupational Medicine

SOP – Standard Operating Procedures

STI – Sexually Transmitted Infections

TB - Tuberculosis

TWH – Total Worker Health

WHO – World Health Organization

WHR – World Health Report

WP - Workplace

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Annexures

Annexure 1. Consent to Tape/Record Interview

CONSENT TO TAPE/ RECORD INTERVIEW

University of the Witwatersrand: Health Sciences Department

Ethics approval number:

Institution Code:

I_____ have been informed that the interview I have with the researcher will be taped/digitally recorded by the researcher. I understand the reasons for the recording and I understand that the records will be destroyed after the research project is complete. I hereby agree/consent to the interview being taped/digitally recorded for this study and further understand that should any direct quotes of anything I have said in the interview be used in an article or research report that it will be done anonymously and in such a way that I will not be identified.

Participant's Signature: _____

Date: _____

Annexure 2. Consent to Participate in the Study

CONSENT TO PARTICIPATE IN STUDY

University of the Witwatersrand: Health Sciences Department

Ethics approval number:

Institution Code:

I _____ agree to participate in this research study. I understand that my participation is voluntary and that I can withdraw my consent at any time. I have read and understood the information document on the study. I agree to complete a questionnaire and be interviewed and understand the interview will be recorded. I understand that my name will not be used during the interview or appear on the questionnaire and that these records will not be made available to anyone other than those involved in the study. I understand that that should anything I have said in the interview be used in an article or research report, it will be done anonymously and in such a way that I will not be identified.

Participant's Signature: _____

Date: _____

Annexure 3. Research Study Information Document

Research Study Information Document

THE NATURE OF OCCUPATIONAL HEALTH SERVICES FOR EMPLOYEES IN SELECTED PUBLIC HEALTH FACILITIES IN GAUTENG PROVINCE, SOUTH AFRICA

Hello,

I am Kim Pretorius and am doing research in public hospitals and Community Health Centres in Gauteng. Research is the process that enables us to find the answers to certain questions. This research study aims to determine the nature of occupational health services offered to employees in the facilities mentioned above.

This letter is an invitation to consider participating in the study. I am conducting the study as part of my Masters of Science Degree in the Department of Health Sciences at the University of the Witwatersrand under the supervision of Dr. Sue Armstrong. I would like to provide you with more information about this project and what your involvement would entail if you decide to take part.

Participation in this study is voluntary. It will involve an interview of less than hour in length to take place in a mutually agreed upon location. The interview questions will be asked according to a questionnaire designed for the study. It contains closed and open questions. You may decline to answer any of the interview questions if you so wish. Further, you may decide to withdraw from this study at any time without any negative consequences to yourself by advising the researcher. With your permission, the interview will be audio recorded to facilitate collection of information, and later transcribed for analysis.

All information you provide is considered completely confidential. Your name/ the name of the facility where you are employed will not appear in any report resulting from this study, however, with your permission anonymous quotations may be used.

Data collected during this study will be retained by the University of the Witwatersrand and the researcher. Only researchers associated with this project will have access.

There are no known or anticipated risks to you as a participant in this study. Benefits of participating in this study are to contribute to the body of knowledge as regards workplace

health and through the findings of the study to provide information on potential areas for improvement as regards the occupational health of employees.

I would like to assure you that this study has been reviewed and received ethics clearance through a University of Witwatersrand Research Ethics Committee. Permission to do the study in the facilities will have been granted by Gauteng Province health authorities However, the final decision about participation is yours.

Any complaints or problems you may have can be directed to:

HREC

School of Therapeutic Sciences

Department of Health Sciences

University of the Witwatersrand

7 York Street

Parktown

Johannesburg

If you have any questions regarding this study, or would like additional information to assist you in reaching a decision about participation, please contact me at 0827302478 or by email at kimpretor@gmail.com.

Kim Pretorius

Student Number: 754108

Annexure 4. Questionnaire/Interview Guideline

THE NATURE OF OCCUPATIONAL HEALTH SERVICES FOR EMPLOYEES IN SELECTED PUBLIC HEALTH FACILITIES IN GAUTENG PROVINCE, SOUTH AFRICA.

QUESTIONNAIRE/INTERVIEW GUIDELINE

Code of Institution: …….

Type of Institution: Public Hospital…… CHC ……..

Job Title: ……..……..……

1. GENERAL

Number of employees in the hospital/CHC. …….

Please mark your response to Section A with a cross.

SECTION A

GENERAL	Yes	No	Don't know
1.1. Does the facility have an OH and Safety Policy?			
1.2. Is there and OH and Safety Department?			
1.3. Is there an OH service Policy?			
1.4. Is there an OH service plan?			
1.5. Is there a co-coordinator for OH (Occupational Health) services?			
1.6 Is there and OHN (Occupational Health Nurse)?			
1.7 Is there and OHMP (Occupational Health Medical Practitioner)?			

2. OCCUPATIONAL HEALTH SERVICE ACTIVITIES

	Yes	No	Don't know
2. PROMOTION OF WELLNESS			
2.1. Workplace Health Promotion			
2.1.1. Is there a health promotion program?			
2.1.2. Is there a health promotion policy?			
2.2. **Employee Medical Surveillance**			
2.2.1. Is there a medical surveillance plan?			
2.2.2. Are baselines established?			
2.2.3 Is there a rehabilitation program for return to work after injury/long term sickness absence?			
2.3 **Sickness absence monitoring**			
2.3.1 Is there a sickness absence policy?			
2.3.2 Are sickness absence trends monitored			
3. PREVENTION OF OCCUPATIONAL INJURIES AND			

DISEASES			
3.1 **Assessing Hazardous Exposures in the Workplace**			
3.1.1 Do you have Health and Safety Representatives?			
3.1.2 Do you have a Health and Safety Committee?			
3.1.3 Is there a system for risk assessment of the workplace?			
3.2 **Comprehensive Prevention Program**			
3.2.1 Is there a risk based assessment of all employees?			
3.2.2 Is there in-service training of employees as regards hazards and risks in the workplace?			
3.2.3 Is there an Immunisation program?			
3.3 **Management of Occupational Injuries and Disease**			
3.3.1 Is there an incident/accident reporting system?			
3.3.2 Is there a program for occupational disease/injury management?			
3.3.3 Are injuries/suspected occupational diseases reported to the Compensation Commissioner?			
4. **CLINICAL SERVICE**			
4.1 Is there a clinic service for all employees?			
4.2 If there is a clinic service does it cover: -Primary Health Care? -Emergency medical care? -Chronic services? -Management of occupational disease?			
5. **OCCUPATIONAL HYGIENE**			
5.1 Has an Environmental/Occupational Hygiene Survey been done?			
5.2 Is there a HIRA (Hazard Identification Risk Assessment)?			
5.3 Is there an HRA (Health Risk Assessment)?			
5.4 Are regular “walkthrough” inspections done?			
5.5 Are MSDS’s (Material Safety Data Sheets) for all materials/ chemicals used onsite available and accessible to all employees?			
6.**CONSULTATION SERVICES**			
6.1 Is there a formalized consultation program between the OHMP, the OHN, management, unions and employee representatives?			
6.2 Are there first aiders on site?			
6.3 Are there first aid boxes on site?			
6.4 Is there a referral/feedback system from/to hospital/ outside providers?			
7. **ADMINISTRATION**			
7.1 Is there a Policy and Procedure manual for OH and safety?			
7.2 Is there an OH information management system?			
7.3 Are OH records kept on the following: -environmental? - sickness absence statistics? -medicine control? -research? -statutory records and reports (e.g. Radiation)?			
7.4 Are health records created for all new employees			
7.5 **Audit of OH services**			
7.5.1 Are the facilities audited?			
7.5.2 Is there a set internal audit tool?			

7.5.3 Are there OH departmental: -standards, -KPI's(Key Performance Indicators) -set targets?			
7.5.4 If audited do you receive feedback?			
8. **RESEARCH**			
8.1 Have there been any research projects in the last 5 years as regards OH?			
9. **SPECIAL PROGRAMS**			
9.1 Are there special health programs offered to employees: -HIV/AIDS? -Tuberculosis? -Chronic Disease management?			
10. **EAP (Employee Assistance Program)**			
10.1 Is there an EAP?			
10.2 Is there a Policy on employee health?			
10.3 Is stress potentially caused by the workplace addressed?			
10.4 Is stress included in the risk assessment for each employee?			
10.5 Is there a training program for stress awareness and coping strategies?			

Kim Pretorius

17 June 2015

SECTION B – QUESTIONS FOR SEMI-STRUCTURED INTERVIEW

Question1: Please tell me about your background and understanding on occupational health.

Probes:

- Any formal/informal training in Occupational Health?
- Reasons for your appointment in this post?

Question 2: Please tell me about the aspects of the occupational health program at this health case institution that you believe are working well.

Probes:

- Are there specific aspects of the program that work well? Probe specifically re the promotion of health and protection of staff.
- What makes that program successful?

Question 3: Please tell me about any problems you encounter that make it difficult to offer a comprehensive OH service in this health care institution.

Probes:

- What has been done to resolve the problems?
- What do you think should be done to resolve the problem?

Question 4: Anything else you would like to add?

Kim Pretorius

18 June 2015

Annexure 5. Permission Letter to the Gauteng Department of Health

PERMISSION LETTER TO DEPARTMENT OF HEALTH

P.O Box 2296
Primrose
Germiston
1406

The Research Department

Gauteng Department of Health

To Whom It May Concern

Application for permission to conduct research in Public sector hospitals and Community Health Centres in Ekurhuleni District B, Gauteng.

I am registered for a Master's of Science Nursing Degree - specialisation Occupational Health Nursing with at the Department of Nursing Education, University of the Witwatersrand. I wish to request permission to do research in the Public sector hospitals and Community Health Centres in the Ekurhuleni Region B region as part of my degree.

The purpose of the study is to determine the nature of occupational health services for employees in the facilities mentioned above.

The participants will be one person employed at each facility who is responsible for the occupational health and safety of the employees at the facility.

The participants will be interviewed using a semi-structured interview tool and audio/digital taping of the interview.

Yours Faithfully

Kim Pretorius

Cell: 0827302478

E-mail: kimpretor@gmail.com

Annexure 6. Gauteng Department of Health Approval

GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

OUTCOME OF PROVINCIAL PROTOCOL REVIEW COMMITTEE (PPRC)

Researcher's Name (Principal investigator)	Ms Kim Pretorius
Organization / Institution	WITS
Research Title	The nature of occupational health services for employees in selected Public health facilities in Gauteng Province, South Africa.
Contact details	kimpretor@gmail.com Tel: N/A Cell: 0827302478
Protocol number	GP 2015 RP 46 547
Date submitted	06/08/2015
Date reviewed	25/09/2015
Outcome	**APPROVED**

The Gauteng Health Department has granted conditional approval to your research on, The nature of occupational health services for employees in selected Public health facilities in Gauteng Province, South Africa; Tembisa, Natalspruit, Edenvale, Far East Rand, Pholosng, Tambo Memorial, Bertha Gxowa, Heidelberg Hospital's and Kwa-Thema, Esangweni, Phola Park, Ramokonopi, Nokuthula Ngwenya, Phillip Moyo and Jabulani Dumane CHC's.

The Provincial Protocol Review Committee kindly requests that you to submit a report after completion of your study and present your findings to the Gauteng Health Department.

Recommended

Dr Bridget Ikalafeng (On behalf of PPRC)
Research and Epidemiology
Date 2015/10/02

Approved

Dr LRR Lebethe
Acting DDG: Clinical Services
Date 02 10 2015

Annexure 7. Permission from Tambo Memorial Hospital

GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

OFFICE OF THE CEO
Dr. A. Naidoo
Tambo Memorial Hospital
: (011) 898-8317
: (011) 892-0358
: AvisN@gpg.gov.za

MEMO

To : Kim Pretorius

From : Dr A Naidoo – Chief Executive Officer

Date : 9 November 2015

Subject : **Request to Carry Out Research at Tambo Memorial Hospital**

This serves to grant permission Kim Pretorius to carry out a research study: *The Nature of Occupational Health Services or Employees in Selected Public Health facilities in Gauteng at* Tambo Memorial Hospital. This permission is granted in light of improving the skill capacity of the Gauteng Department of Health.

The permission is granted in line with the code of ethics or research.

The information of the Gauteng Health Department will be used for the purpose of research and it will be utilized discreetly and that confidentiality will be maintained at all times.

The permission is granted in good faith with the notion and understanding that the abovementioned clause is upheld.

Furthermore, there should be no financial implication to the hospital.

The collection of data will be the responsibility of the researcher.

Thank you,

TAMBO MEMORIAL HOSPITAL
DR. A. NAIDOO
2015 -11- 09
CEO
GAUTENG PROVINCIAL GOVERNMENT

.....
Dr A Naidoo
Chief Executive Officer

Annexure 8. University Ethics Committee Approval

Human Research Ethics Committee (Medical)

Research Office Secretariat: Senate House Room SH 10004, 10th floor. Tel +27 (0)11-717-1252
Medical School Secretariat: Phillip Tobias Building, 2nd Floor Tel +27 (0)11-717-2709
Private Bag 3, Wits 2050, www.wits.ac.za. Fax +27 (0)11-717-1265

01 June 2015

To Whom It May Concern

SUBJECT: **CONFIRMATION OF STUDY APPROVAL**

Protocol Ref No: M150436

Protocol Title: The Nature of Occupational Health Services or Employees in Selected Public Health Facilities in Gauteng Province, South Africa

Principal Investigator: Ms Kim Pretorius

Department: Nursing

This letter serves to confirm that the Human Research Ethics Committee (Medical) has approved the above mentioned study. In order for a clearance certificate to be issued, the researcher is required to submit written approval to conduct the study in your district/institution.

Should you have any queries, you may contact me at tel 011 717 1252/1234/2700 or by email Zanele.ndlovu@wits.ac.za.

Yours Faithfully,

Ms Zanele Ndlovu
Administrative Officer
Human Research Ethics Committee (Medical)

UNIVERSITY OF THE WITWATERSRAND
OFFICE OF THE DEPUTY VICE CHANCELLOR RESEARCH
01 JUN 2015
RESEARCH OFFICE HREC (Medical)
JOHANNESBURG

Annexure 9. Example of a completed interview

Interview for H[redacted]

You said you have an Occupational Health and Safety Policy and you have just shown it to me and we have ascertained that it is a basic one with nothing on immunisations, bloods etc. Do you have your own in the department that you know , dealing with that?

Yes we do have from the Department but we derive from the WHO Guidelines.

So you have an OH Policy and service plan in the Hospital? (no response)

In your answers on the questionnaire you said yes you do have a service plan but after discussion you are saying you don't have?

Let's relate to the service plan – I was relating to the OH year plan.

The person running the OH service – is that you? You are the OH nurse – are you trained?

Yes.

There is no OHMP – a Doctor actually trained on occupational health?

We do have but she is centralized, she is at provincial office.

But do you have access to her?

Yes but she doesn't come here.

You said that you had a workplace health promotion program. Can you tell me what it is about? How do you promote health?

We follow the year calendar every week we do awareness of OH &S day and an event, what's on the calendar and we do make our employees aware of OH &S.

Is this on a monthly basis or how often does it happen?

It goes according to the calendar but we do not do something every month.

There is a medical surveillance plan for employees and baselines are established. Can you tell me a bit more about this?

Yes we do have a risk assessment with a medical surveillance plan to the occupational risk exposure and we did a medical surveillance plan and do baselines even though it is slow because of manpower but we do have.

Is it at pre-employment that you establish baselines or is it in retrospect – are you trying to catch up?

Yes we are trying to catch up because they were not done before.

When did this start that you started to do baselines, medical surveillance if you are saying you have a backlog?

In December (2014) we started and in the following months like January February we did the risk assessments and the baselines I think we started them about April.

So this is all new and what you are saying is there was no OH service here doing this before?

There was but it was environmental health who did the risk assessment.

So your sickness absence trends is it HR?

It is HR but it's the ward managers that analyse the trends.

So you don't have anything to do with it?

No.

You have H&S Representatives and are they appointed in writing?

Yes

Do you know how many you have?

About 8

You have a H&S committee?

Yes

How often do they meet

Monthly, every month.

There is a system for risk assessment of the workplace. Do you have a hygienist here or does someone come?

Department of Health OH& S Risk Directorate.

How often do they come?

They come as we are required to do issue based risk assessments and with like us they do a baseline and they come every two years.

So you are compliant with the OHSA which requires a risk based assessment of all employees. When does this happen?

During the risk assessment according to job category. We do classify our workers according to the risk assessment.

You said there is in-service training of all employees as regards hazards, risks in the workplace. Is this at induction or how does it work?

We do on the job training and we do induction training on staff members and we do go to the wards.

Are your cleaners and gardeners in-house and do you do them as well?

Yes

You said there is an immunization program – what does it consist of?

Our immunization program we only offer Hepatitis B and flu during the winter.

Do you do bloods?

We do Hepatitis immunity bloods.

Do you have a recall system like every 5 years?

No

Your incident and accident reporting system – is that you or somebody else?

I do them

Do you do COID?

I do together with HR – I submit the documents to HR. We usually start in the OH7S department with the documents and then I refer them to HR.

You said there is a clinic service here – is it in a specific place or are there different places they have to go to for specific things?

We have a clinic service here that is here with a medical officer who is also working in the hospital but he also sees our staff but for treatment we refer them to pharmacy.

So you say they receive primary health care and they get their medicines at the pharmacy?

Yes.

For emergency care?

Casualty

Management of occupational disease

That's me.

You said your environmental occupational hygiene survey has been done – can you remember when it was done last?

The last was done January February this year. They need to come every two years unless we require them to come for issue based.

How often do you do walkthrough inspections?

Walkthrough inspections we do them every day and we do it with our OH&S reps checlists and safety reps checklist which is submitted monthly.

You said "we" do walkthroughs every day – who is this?

Two environmental Health practitioners that are appointed by the hospital and I do have an intern together with me .

You said you have Material Safety Data Sheets for everything – is it accessible to employees and where is it kept?

Yes, laundry has it, cleaning department has it and I also have it. Casualty ...no.

Is there a formalized consultation program between the medical doctor, the OHN ,management, unions employee reps and how often does it happen?

Union reps are part of our committee and we do them monthly.

You said there are first aiders on site?

Yes

Are all these first aiders appointed and trained?

Most of our first aiders we give them awareness training but they didn't get proper training but some departments we did send for first aid training.

Is the plan to send them all?

Yes we are just waiting for the go ahead.

How many trained first aiders on site?

We have about 10

Is there a referral feedback system from/to the hospital to outside providers?

Yes, for instance if we were doing eye screening on a person and you encounter problems you refer to the optometrist then ask feedback. We do refer our staff members for admissions to outside for treatment and we do get feedback.

There is an OH information management system? First you said "no" then you changed it to "yes". This is patient files – your clients for OH.

Yes we do have.

You said yes you do keep statutory records like for radiography?

Yes but we have not reached radiography department yet but we do do their dosimeters. They do wear them and we do monitor the levels.

What do you do with those readings?

Up to so far the readings have been zero, no exposure

You said yes the facilities are audited – who comes to audit you?

We have National Core Standards, they came out and we were audited.

Did they give you feedback?

Yes, they do give us feedback.

Who else?

We had Ekurhuleni Development and emergency department and we did receive feedback. We have not had any Department of Health.

Do Germiston come out to audit you?

Nope. Sometimes they come and audit the environmental.

Internal audit – do you have your own?

Yes I do. We do them quarterly but his year(Nov 2015) we have done them once.

You said there are OH Department standards but not KPI's?

Yes but they are not formalized.

You have them in a book?

I have them in my diary.

You said that there are special health programs offered to employees HIV?AIDS, TB/chronic disease management. Is that at the clinic that you told me was for staff or is there separate facilities?

We have service providers that come and when we have events we do invite GEMS to come and provide us with that.

If they test positive then where do they go?

We manage them her in this department.

You said there is an EAP – till me a bit more about your EAP here.

Our EAP we use our psychologists. We refer our staff and they are very helpful and see our staff.

You said something to me earlier that you used to use PROCURE but they are an outside provider.

Yes we do have now a wellness manager who sometimes uses the facilities of PROCURE otherwise she does it herself and we work together.

You said stress potentially caused in the workplace is addressed?

Yes

How does this occur – how do you address stress in the workplace with your employees?

We do have service providers. We had one come this year to address the stress issues.

How does it happen – do they go to the wards and talk to people?

They will just be in one place and the employees will go there.

Please tell me about your background and understanding of OH. Any formal training you have had or reasons for you being placed in this post.

I've got a BTech Degree in OH from Tswane University of Technology . The post was advertised. I applied and was appointed 1st December 2014.

When did you do your BTech?

2011 – 2012

What did you do before that – anything to do with OH?

I worked in the laundry and I did OH but was not trained and I did my OH training while I was there.

How many years were you there?

I started working in Kalafong in 2013.

Please tell me about the aspects of the OH program at this institution that you feel are working well and what makes the program successful?

The programs are working although I wouldn't say they are working 100% well. They are partial due to the key performance issues that I do have my targets but I do not reach my targets. We do do OH but not to the full expectation.

What do you feel you are doing well? You've only been here a short time so what do you feel that since you've got here is working well?

The aspect of OH that I feel that we are achieving and doing well is immunization program, pre-employment, medical surveillance, we do baselines, we do our walkabouts every day. Monthly we do inspection checklists in all the departments done by our H&S Representatives. We do OH&S audits and we were audited by the **Quality standards and our department was able to score 100%.** We met all the requirements.

Please tell me about any problems you encounter that make it difficult to offer a OH service in this institution and what is being done to resolve this or what do you feel should be done?

We do have a facility that is very outdated. Our challenges are equipment – we don't have equipment – things like scales, fridges. For Hepatitis I have to go outside to access the fridge in the Pharmacy. It is challenging and I did address it with management as I have to return them before pharmacy closes which is disappointing and problems maintaining the cold chain, It would be better if the fridge was here and I could immunize as they come.

What has been done to resolve that?

I submitted a request and a letter to management. This also delays me in meeting my targets and standards. They say they are doing something about it but it is going to a year now.

Is that the only problem?

The challenge is that OH does not have a budget so we rely on other departments budgets for the program to continue. Like after immunization we do not have a budget to be talking Hepatitis B bloods, we have to use the hospital budget.

So what you are telling me is that they decided to start the OH service but that they didn't budget for it?

Yes

It's coming up to a new financial year – has a budget been allocated or discussed with you for OH?

What we were told by the Province is that there is no budget allocated for OH so the hospital will assist us with some of the things we want but I haven't heard anything up to now, we are still waiting.

Anything else you would like to add?

OH is not recognized, we don't have a structure to start with and you become frustrated because of no structure. If we can function in an institution where OH is a department where there is an OH&S manger, where there is an OH&S nurse and administrator and a clerk and equipment. Where they recognize OH as a specialty as it's not recognized and you work under general worker. It will be nice if

the Department can recognize OH and take the OH&S of members into consideration. It's a high risk environment and they need the services.

FIELD NOTES

1.1 OH& S Policy – Gauteng Province for Gauteng Health Department – overall Policy September 2008

9. Special programs run by GEMS

GAUTENG PROVINCE
REPUBLIC OF SOUTH AFRICA

[redacted] HOSPITAL

Directorate: Office Of The Chief Executive Officer
Enquiries: Dr. P. Africa
Tel: +27 (011) 580 0288
Fax: +27 (086) 660 9725

I, Kim Pretorius

Hereby understand and accept that I have been given an opportunity to observe and job shadowing whilst the Health workers carry out their duties.

I undertake not to divulge in any form either verbally otherwise to anybody or anyone my observations at any time and under any circumstances.

I also understand that I cannot hold the hospital or Gauteng department of health or national department of health responsible for any accident or mishap that may happen to me during this period.

Period covered: _____ to _____

Signature of applicant: _____

Date: 11 November 2015

Acting Training coordinator: [redacted]

Date: 19 Nov 2015

Signature of Clinical Manager: [redacted]

Date: 23/11/2015

PP [redacted]

Dr [redacted]
Acting Chief Executive Officer
Date: _____

[redacted]

Telephone number: [redacted]

Please invite – [redacted]@gmail.com
Send copy of research report = [redacted]
– proposal

Annexure D [redacted]

THE NATURE OF OCCUPATIONAL HEALTH SERVICES FOR EMPLOYEES IN SELECTED PUBLIC HEALTH FACILITIES IN GAUTENG PROVINCE, SOUTH AFRICA.

QUESTIONNAIRE/INTERVIEW GUIDELINE

Code of Institution: H[redacted]

Type of Institution: Public Hospital Regional .... CHC ....

Job Title: OHS Manager

1. GENERAL

Number of employees in the hospital/CHC. 1200

Please mark your response to Section A with a cross.

GAUTENG – REGIONAL GVT – FOR GAUTENG HEALTH DEPT – OVERALL SEPT 2005

SECTION A

	Yes	No	Don't know
1.1. Does the facility have an OH and Safety Policy?	✓		
1.2. Is there and OH and Safety Department?	✓		
1.3. Is there an OH service Policy?	✓		
1.4. Is there an OH service plan?	✓		
1.5. Is there a co-coordinator for OH (Occupational Health) services?	✓		
1.6 Is there and OHN (Occupational Health Nurse)?	✓		
1.7 Is there and OHMP (Occupational Health Medical Practitioner)?		✓	

IN HOSPITAL

2. OCCUPATIONAL HEALTH SERVICE ACTIVITIES

	Yes	No	Don't know	FIELD NOTES
2. PROMOTION OF WELLNESS				
2.1. **Workplace Health Promotion**				
2.1.1. Is there a health promotion program?	✓			– OHS INHOUSE
2.1.2. Is there a health promotion policy?			✓	
2.2. **Employee Medical Surveillance**				
2.2.1. Is there a medical surveillance plan?	✓			– RISK -> MED SURV
2.2.2. Are baselines established?	✓			– PRE-EMP
2.2.3 Is there a rehabilitation program for return to work after injury/long term sickness absence?		✓		
2.3 **Sickness absence monitoring**				
2.3.1 Is there a sickness absence policy?	✓			HR.
2.3.2 Are sickness absence trends monitored	✓			– WARD MNGRS
3. PREVENTION OF OCCUPATIONAL INJURIES AND DISEASES				
3.1 **Assessing Hazardous Exposures in the Workplace**				

3.1.1 Do you have Health and Safety Representatives?	✓		
3.1.2 Do you have a Health and Safety Committee?	✓		monthly
3.1.3 Is there a system for risk assessment of the workplace?	✓	24HRS.	
3.2 **Comprehensive Prevention Program**			
3.2.1 Is there a risk based assessment of all employees?	✓		
3.2.2 Is there in-service training of employees as regards hazards and risks in the workplace?	✓		OHS RECORDS
3.2.3 Is there an Immunisation program?	✓		
3.3 **Management of Occupational Injuries and Disease**			
3.3.1 Is there an incident/accident reporting system?	✓		
3.3.2 Is there a program for occupational disease/injury management?	✓		
3.3.3 Are injuries/suspected occupational diseases reported to the Compensation Commissioner?	✓		
4. **CLINICAL SERVICE**			
4.1 Is there a clinic service for all employees?	✓		
4.2 If there is a clinic service does it cover: -Primary Health Care? -Emergency medical care? -Chronic services? -Management of occupational disease?	✓ ✓ ✓ ✓		
5. **OCCUPATIONAL HYGIENE**			
5.1 Has an Environmental/Occupational Hygiene Survey been done?	✓		
5.2 Is there a HIRA (Hazard Identification Risk Assessment)?	✓		
5.3 Is there an HRA (Health Risk Assessment)?	✓		
5.4 Are regular "walkthrough" inspections done?	✓		
5.5 Are MSDS's (Material Safety Data Sheets) for all materials/ chemicals used onsite available and accessible to all employees?	✓		LAUNDRY CLEANING
6.**CONSULTATION SERVICES**			
6.1 Is there a formalized consultation program between the OHMP, the OHN, management, unions and employee representatives?	✓		
6.2 Are there first aiders on site?	✓		10 INSUFFICIENT
6.3 Are there first aid boxes on site?	✓		
6.4 Is there a referral/feedback system from/to hospital/ outside providers?	✓		
7. **ADMINISTRATION**			
7.1 Is there a Policy and Procedure manual for OH and safety?	✓		
7.2 Is there an OH information management system?	✓		
7.3 Are OH records kept on the following: -environmental? - sickness absence statistics? -medicine control? -research? -statutory records and reports (e.g. Radiation)? DOSIMETERS ✓	✓ ✓ ✓	✓	
7.4 Are health records created for all new employees	✓		
7.5 **Audit of OH services**			
7.5.1 Are the facilities audited?	✓		NCS Environmental
7.5.2 Is there a set internal audit tool?	✓		
7.5.3 Are there OH departmental: -standards,	✓		

-KPI's(Key Performance Indicators) -set targets?		✓ ✓	
7.5.4 If audited do you receive feedback?	✓		
8. **RESEARCH**			
8.1 Have there been any research projects in the last 5 years as regards OH?		✓	
9. **SPECIAL PROGRAMS**			
9.1 Are there special health programs offered to employees: -HIV/AIDS? -Tuberculosis? -Chronic Disease management?	 ✓ ✓ ✓		
10. **EAP (Employee Assistance Program)**			
10.1 Is there an EAP? (PSYCHOLOGISTS USED)	✓		
10.2 Is there a Policy on employee health?	✓		
10.3 Is stress potentially caused by the workplace addressed?	✓	(SERVICE PROVIDERS NOT IN-HOUSE)	
10.4 Is stress included in the risk assessment for each employee?	✓		
10.5 Is there a training program for stress awareness and coping strategies?	✓		

Gems.

Procuren

Kim Pretorius

17 June 2015

SECTION B – QUESTIONS FOR SEMI-STRUCTURED INTERVIEW

Question1: Please tell me about your background and understanding on occupational health.

Probes:

- Any formal/informal training in Occupational Health? - B Tech Degree in OH
- Reasons for your appointment in this post? - Post vacant, advertised and I applied.

Question 2: Please tell me about the aspects of the occupational health program at this health case institution that you believe are working well.

Probes:

- Are there specific aspects of the program that work well? Probe specifically re the promotion of health and protection of staff. → All programmes work partially due to under staffing of the OH Dept
- What makes that program successful?

The Programme could be run Successfully if the Department could have 1. OMP 2. OH Nurse 3. OHS coordinator 4. COIDA Administrator 5. Budget is received.

Question 3: Please tell me about any problems you encounter that make it difficult to offer a comprehensive OH service in this health care institution.

Management to employ an EAP to assist with injury on duty and programme immunization

Probes:

- What has been done to resolve the problems? –
- What do you think should be done to resolve the problem? → To appoint an OMP on part time basis to assist with Medical Surveillance of OH Related issues that affect Employee's Health and level of functionality

Question 4: Anything else you would like to add?

I wish the EHOH could take OHS into consideration and allocate budget for the programme and also to work on the structure of the OH Department to ensure that all areas of OH are covered in all institutions throughout Gauteng Clinics and Hospitals.

OH nursing to be regarded as a speciality in all institutions as some institutions OH Nursing is not considered to be a speciality.

Kim Pretorius

18 June 2015

Annexure A

CONSENT TO TAPE/ RECORD INTERVIEW

University of the Witwatersrand: Health Sciences Department

Ethics approval number: M150436

Institution Code: H[redacted]

I [redacted] have been informed that the interview I have with the researcher will be taped/digitally recorded by the researcher. I understand the reasons for the recording and I understand that the records will be destroyed after the research project is complete. I hereby agree/consent to the interview being taped/digitally recorded for this study and further understand that should any direct quotes of anything I have said in the interview be used in an article or research report that it will be done anonymously and in such a way that I will not be identified.

Participant's Signature: [redacted]

Date: 2015/11/30

AnnexureB

CONSENT TO PARTICIPATE IN STUDY

University of the Witwatersrand: Health Sciences Department

Ethics approval number: M150436

Institution Code: H[redacted]

I [redacted] agree to participate in this research study. I understand that my participation is voluntary and that I can withdraw my consent at any time. I have read and understood the information document on the study. I agree to complete a questionnaire and be interviewed and understand the interview will be recorded. I understand that my name will not be used during the interview or appear on the questionnaire and that these records will not be made available to anyone other than those involved in the study.I understand that that should anything I have said in the interview be used in an article or research report, it will be done anonymously and in such a way that I will not be identified.

Participant's Signature: [redacted]

Date: 30/11/2015