



**A nine-year comparative retrospective clinical audit of the Ukuba  
Nesibindi Homoeopathic Community Health Centre**

**BY**

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## Declaration

This is to certify that the work is entirely my own and not of any other person, unless explicitly acknowledged (including citation of published and unpublished sources). The work has not previously been submitted in any form to the Durban University of Technology or to any other institution for assessment or for any other purpose.

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## **Dedication**

I dedicate this to my loving supportive family, firstly my strong loving grandmother that raised me and instilled in me the greatest values and principles. Secondly my loving mother – I can only dream of ever having the courage and strength that she has. Thirdly my brother, my protector, supporter, friend and parent. Fourthly my father my anchor, comedian and my provider. Fifthly to my extended family Uma Gugu, Mngobi (my bestie) and Sizwe. To my family I love you deeply. Finally, the biggest dedication goes to my leader and my all, unguAlpha, unguOmega uyikhokhone umdali wam GOD.

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# **Abstract**

## **Introduction**

In order to facilitate higher standards of health care, as well as in teaching and learning, the Durban University of Technology (DUT) Department of Homoeopathy established its first satellite community centre called Ukuba Nesibindi Homoeopathic Community Health Centre (UNHCHC) in 2004. This clinic is in the greater Durban region at 22 Stratford Road, Warwick Junction on the third floor of the Lifeline building. This process was undertaken in active collaboration with Lifeline (Smillie 2010; Dube 2015).

The main objective of this community centre was to introduce an alternative, cost effective, safe and gentle form of treatment to improve the lives of people and as well as to provide the students with the practical foundation and a clinical environment (Smillie 2010). UNHCHC provides free homoeopathic primary health care services in a primarily disadvantaged area noted for its highly impoverished people and substandard living conditions (Watson 2015).

The purpose of this comparative retrospective centre audit of UNHCHC was to determine the difference, if any between patient demographics, disease prevalence profile and the major medicines prescribed, with the results of the study by Smillie (2010) at the same facility. Data was collected by performing a clinical audit on patient files from the archives at UNHCHC. All patient files from July 2008 to July 2017 were included for analysis.

## **Aim of the study**

The aim of this nine year (2008 to 2017), comparative, retrospective, descriptive, explanatory, study was to determine the patient demographics, disease prevalence profile, consultation patterns and identify the major medicines prescribed at UNHCHC, and compare these results with Smillie (2010) study.

## **Methodology**

The study used a comparative, retrospective, explanatory and descriptive design method by means of a clinical audit to determine a patient demographic and disease prevalence profile, as well as identify and describe the various homoeopathic treatment modalities of UNHCHC and compare these results with that of Smillie (2010). Prior to commencement of the study all gatekeeper permission was sought and granted accordingly by all relevant personnel. The data collection tool was a spreadsheet that was utilized to capture data from all files from 2008 July -2017 July. This included both new patient files and follow up patient files. The data collection form was divided into patient demographic information such as race, age and gender, employment history, year of first consultation, number of follow ups, clinical diagnosis, examination procedure (such as urine dipstick and full comprehensive physical examination), patient referral and treatment protocol. The study was conducted at the UNHCHC under the supervision of a qualified and registered homoeopath. The results were analysed by using various forms of descriptive statistics such as pie charts and bar graphs using Excel from Microsoft Office.

## **Results**

An in-depth audit report of the clinical activities of UNHCHC was carried out from July 2008 to July 2017. All patient files from July 2008 to July 2017 (both new and follow up files) were included for analysis. revealed the same notion as Smillie in terms of demographics, there is a small margin of difference that can be negligible. The significant difference is the average age group that showed younger patients having more access to the facility (age group-25-39) (39.5%). The most noteworthy change was the consultation statistics that has shown an increase from 2004-2008, there were only 1044 consultations compared to, 2009-2019 where there were 5870 consultations. This shows an 82% increase from the first four years. There were not many implications that this study revealed that is worth mentioning except that the access to homoeopathic treatment has improved from 2004 to date. Access has changed amongst different ethnic groups where, 95% of Africans can now access the homoeopathic treatment that in the past they could not access. This primary health

care setting has been accessed by 0.9% of White patients compared to 0% when it started in first four years. This may be due to socioeconomic shifts we are witnessing in South Africa. It is critical to note that access was not the objective of the study.

Patients were mostly diagnosed with respiratory diseases, particularly upper respiratory tract infections. Smillie (2010) found that infectious diseases were the most prevalent disorders encountered at UNHCHC. The total number of prescriptions was 4 822. Other phytotherapeutic treatment medications such as herbal creams, tissue salts and herbal tinctures were prescribed in addition to primary homoeopathic treatment modalities to consulting patients during the study period. Smillie (2010) found that *Natrum muriaticum* (8%), *Sepia officinalis* (5%), *Aconite napellus* (5%), *Staphysagria delphinium* (5%), and *Pulsatilla nigricans* (5%) were the most prescribed remedies at UNHCHC during the period of her study.

The study revealed that the recommendations made by Smillie (2010) were followed through as the centre now has, the provision of a glucometer, pregnancy testing kits and peak flow meter at UNHCHC. Two additional clinician's assistants have been employed at UNHCHC and work on different operational days at UNHCHC, decreasing the administrative duties of the attending clinician. The clinician's assistants also form part of the translation team when required to translate for student interns. Provision of a ground floor consulting room has been attained. A shared consultation space between Lifeline and UNHCHC serves as a consulting space. Provision of language translators has been made. In 2009 the language isiZulu was introduced into the curriculum as a module. This module does not form part of the official curriculum, but students have access to the module through the clinic director Dr Ngobese-Ngubane. In the period of 2017 UNHCHC was renovated to meet the Allied Health Professionals council criteria. The clinic now comprises of a dispensary room, three consultation rooms, one storage room, two clean toilet facilities, two signs outside of the clinic and in addition the clinic has three additional staff members, two clinic assistances and one staff member to maintain cleanliness of UNHCHC. This shows improvements on the running of the centre.



## **Conclusion**

UNHCHC has continued to develop and grow over the years since its inception in 2004. Both the retrospective studies conducted at UNHCHC over its 14-year history have illustrated the growth in patient numbers as well as prevalent diseases seen at UNHCHC. The results obtained from this study demonstrates that homoeopathy as a profession, within the medical field can be included in the national primary health care system. Inclusion of homoeopathy within the public health sector could assist in reducing the overcrowding of patients experienced at the public health clinics. This statement is supported by the positive results of this study. More homoeopathic clinics should be established in impoverished communities around the country, along the lines of the UNHCHC, which has proven to be an effective community health clinic within the Warwick Junction community.

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## List of Acronyms

Acronym	Full Name
AHPCSA	Allied Health Professionals Council of South Africa
CAM	Complementary and Alternative Medicine
CRHCHC	Cato Ridge Homoeopathic Community Health Centre
DUT	Durban University of Technology
HDC	Homoeopathic Day Clinic
HIV	Human Immune Deficiency Virus
HPCSA	Homoeopathic Professionals Council of South Africa
HSA	Homoeopathic Association of South Africa
KGHCHC	Kenneth Gardens Homoeopathic Community Health Centre
PHC	Primary Health Clinic's
RHHCHC	Redhill Homoeopathic Community Health Centre
UNHCHC	Ukuba Nesibindi Homoeopathic Community Health Centre
NHS	National Health Service



## **Operational Definitions**

### **Allied Health Professions Council of South Africa (AHPCSA):**

The Allied Health Professions Council of South Africa (AHPCSA) is a statutory health body established to control all allied health professions including Ayurveda, Chinese Medicine and Acupuncture, Chiropractic, Homoeopathy, Naturopathy, Osteopathy, Phytotherapy, Therapeutic Aromatherapy, Therapeutic Massage Therapy, Therapeutic Reflexology and Unani-Tibb, under the Allied Health Professions Act, 63 of 1982 (Anon 2017).

### **Bach flower remedies:**

Bach flower remedies are solutions of brandy and water, the water containing extreme dilutions of flower material developed by Dr Edward Bach. The remedies are a set of 38 medicines. They are prescribed based on the patient's emotional characteristics, in particular their emotional response to health (Richardson-Boedler 2002; Swayne 2000).

### **Complementary and Alternative medicine (CAM):**

The terms "complementary medicine" or "alternative medicine" are used interchangeably with traditional medicine in some countries. They refer to a broad set of health care practices that are not part of that country's own tradition and are not integrated into the dominant health care system (Swayne 2000).

### **Centesimal scale:**

Centesimal scale is based on the principle that the first potency must contain one-hundredth part of the original drug and each succeeding potency, one-hundredth part of the preceding one (O'Reilly 1996).

**Decimal scale:**

Decimal scale of potentisation is based on the principle that the first potency should contain one-tenth part of the original drug and each succeeding potency should contain one-tenth part of the potency preceding it (O'Reilly 1996).

**Materia Medica:**

The materia medica is a book that contains a list of the medicines used and detailed indications for their applications (Cummings and Ullman 1997).

**Mother tincture:**

A mother tincture is the starting alcoholic liquid from which homoeopathic potencies are made. This tincture may also be used therapeutically in material doses (drop doses), either internally or topically (Yasgur 1992).

**Polychrest:**

A homoeopathic medicine that has many treatment applications or uses. It is a remedy that has been proved, and its clinical application shows that it has a wide spectrum of activity in both acute and chronic illness (Cummings and Ullman 1997; Yasgur 1992).

**Potency:**

The term used to describe the number of times a substance has been diluted and succussed (shaken) according to the strict rules of a homoeopathic pharmacopoeia (Cummings and Ullman 1997).

**Potentisation:**

Potentisation is the process by which homoeopathic remedies are made. It is a series of dilutions and agitations. First, the substance from which the remedy derives is either dissolved into a tincture or ground into a powder from which a tincture is made (Cummings and Ullman 1997).

**Provings:**

The procedure for giving doses of a substance to healthy subjects in order to find what the substance causes in overdose and what it has the capacity to cure when given to ill people in potentised dose. Provings are medical experiments that involve giving an individual small dose of a single substance on a daily basis until symptoms are elicited. The dose used is extremely small and is selected according to the knowledge of its toxic properties of the potential medicine (Cummings and Ullman 1997).

**Remedy:**

A remedy a means for the cure of a disease or other disorder of body, mind or spirit; any medicine or treatment which promotes restoration of health (O'Reilly 1996).

**Simillimum:**

A simillimum is the remedy that corresponds to the totality of symptoms. It is the most similar remedy corresponding to a case, one covering the true totality of symptoms presented by the patient (De Schepper 2001).

**Succussion:**

The process of vigorously shaking a properly diluted homoeopathic remedy and striking it against a firm surface (Cummings and Ullman 1997).

**Tissue salts:**

Tissue salts (also known as biochemical or cell salts) are potentised micro-doses of the 12 essential minerals the body needs to repair and maintain itself. They are prepared in homoeopathic potencies (Yasgur 1992).

**Trituration:**

The reduction of a substance to a minute state or division by means of long, continued rubbing. It is a method of remedy preparation by which the finely powdered, medicinal substance (usually insoluble in water or alcohol) is ground for a certain time with a pestle in a mortar with a certain proportion of lactose (Yasgur 1992)

**Vital force:**

The “spirit-like life force that enlivens the material organism as dynamis, governs without restriction and keeps all parts of the organism in admirable, harmonious, vital operation, as regards both feelings and functions, so that our indwelling, rational spirit can freely avail itself of this living, healthy instrument for the higher purposes of our existence” (O’Reilly 1996)

# CHAPTER 1: ORIENTATION TO THE STUDY

## 1.1 Background to the study

In collaboration with Lifeline, Durban University of Technology (DUT) established its first satellite homoeopathic community clinic; Ukuba Nesibindi Homoeopathic Community Health Centre (UNHCHC) in 2004 (Smillie 2010). This clinic is in the greater Durban region at 22 Stratford Road, Warwick Junction, on the third floor of Lifeline building (Smillie 2010; Dube 2015). According to Smillie (2010) the clinic is in an area which is classified as being disadvantaged with high crime rates, prostitution, violence, small informal businesses and low-cost housing. It is a primarily disadvantaged area noted for its highly impoverished people and substandard living condition (Dube 2015). The area has become a prime example of collaborative and people centred governance in South Africa. There have been infrastructure improvements with a constant flow of commuters. The markets in the area have led to significant economic development and stability. The area is the primary public transport interchange in the city (Wright *et al.* 2017).

According to Nsele (2014) Warwick Junction is a major transport node attracting thousands of commuters into the city. The area comprises residential apartments, formal businesses and informal traders. The municipality has identified the area as one of the fastest growing economic hubs in Durban. Warwick precinct is characterised by predominantly low-rise mixed-use buildings comprising shops and arcades at street level with residential units on top (Luckan 2014). The respondents of Warwick Junction have a very low daily income ultimately affecting their quality of life as well as access to primary health care (Smillie 2010).

Chazan (2005) states that Warwick Junction is a clearly demarcated and rapidly changing urban environment. A brief history reveals that the area is rapidly changing and is a contested space where, different forms of poverty, livelihood, displacement control and citizenship are constantly being negotiated. Francis (2004) states that the

area is complex in terms of its biophysical, social, economic and political structures. The area has experienced an influx of a large number of African traders and commuters which has created many changes in the function and landscape of Warwick Junction. Nsele 2014 states that Durban is still in transition to a post-apartheid city and is faced with many developmental and social challenges and is set for re-development under the urban renewal plan. There is little literature available to provide information on the area other than the above mentioned literature.

UNHCHC serves as an official satellite teaching clinic of the Department of Homoeopathy, DUT, as part of both the Bachelor's and Master's degree of Technology in Homoeopathy. The clinic has become an established healthcare provider in the adjacent Warwick community (Watson 2015).

UNHCHC provides free homoeopathic primary health care services. According to Smillie (2010), varieties of health conditions present to the UNHCHC including cardiovascular, nervous, gastrointestinal, genitourinary, musculoskeletal, lymphatic and dermatological complaints. The treatment provided includes homoeopathic medication, dietary and lifestyle advice, and recommendations regarding exercise, sexual protection and avoiding unhealthy activities such as smoking and excessive consumption of mind-altering substances.

UNHCHC is run by 4th and 5th year homoeopathic students under the supervision of a qualified homoeopathic practitioner and funded totally by the Department of Homoeopathy (Smillie 2010). Ngobese-Ngubane 2018 states that, the clinic comprises three clinic rooms which all have examination beds, desk and chairs for consultation. The medication is stored in a dispensary room which was renovated in 2017 in order to meet the Allied Health Professions Council of South Africa's (AHPCSA) criteria. Dispensing and case discussions occur in this room. There is access to two clean toilet facilities for patients to use on the first floor and one toilet facility on the ground floor level. The clinic is currently operating four days a week Monday morning (08h30-12h00), Tuesday afternoon (13h00-16h00), Wednesday morning (08h30-12h00) and Friday morning (08h30-12h00). When the clinic started in 2004 it only operated for one day a week which was Friday morning 09h00-12h00 (Smillie 2010; Watson 2015 and Dube 2015). Factors that influenced the change in

the number of operational days at UNHCHC can be attributed to financial constraints to remunerate attending clinicians (Ngobese-Ngubane 2018).

The purpose of this comparative retrospective clinical audit of UNHCHC was to determine patient demographics, disease prevalence profile, identify and describe the major medicines prescribed, and compare the results of this study to the retrospective study conducted at UNHCHC in 2010 by Smillie.

## **1.2 Aim**

The aim of this 10 year (2008 to 2017), comparative, retrospective, descriptive, explanatory, study was to determine the patient demographics, disease prevalence profile, consultation patterns and identify the major medicines prescribed at UNHCHC, and compare these results with Smillie (2010) study.

## **1.3 Problem statement**

UNHCHC serves as an official satellite teaching clinic which is part of both B. Tech. and M.Tech: Homoeopathy programmes and has become an established healthcare provider in the adjacent Warwick community (Watson 2015). A clinical audit is part of a continuous quality improvement process for public service facilities. The comparison between clinical practice and standards leads to the formulation of strategies in order to improve daily quality (Esposito *et al.* 2014). There has not been an audit for 10-years at UNHCHC, since the previous audit (June 2004- June2008) conducted by Smillie (2010). UNHCHC is a facility that renders health services to the public and it is imperative that UNHCHC is constantly reviewed to establish evolving trends and improve the quality of service offered.

## 1.4 Objectives

- **First objective:** To determine the patient demographic profile and the disease profile at UNHCHC from July 2008 to July 2017.
- **Second objective:** To describe various treatment protocols prescribed at UNHCHC from July 2008 to July 2017
- **Third objective:** To compare the results of this study to a retrospective study done in June 2004 to June 2008 by Smillie (2010).
- **Fourth objective:** To check if there were any improvements made at UNHCHC according to the recommendations made by Smillie (2010).

## 1.5 The significance of the study

The subject of an audit has been increasingly recognised as an important topic in the medical profession. Audits were officially introduced in the United Kingdom in the late 1985. It is recognised as a tool for measuring quality and improvements, and is concerned with assessing and improving the delivery of healthcare, the resources used, the care given, and the outcome (Al-Baho & Serour 2002).

A clinical audit plays an important role in the quality of care being offered to patients. Good quality data can enable valid conclusions to be drawn which enable changes to be made for the better so as to ensure that patients receive care of a high standard and best quality (Verma 2009; Dilnawaz *et al.* 2012). Formal clinical data collected during an audit includes patient demographic disease prevalence, consultation numbers, remedies prescribed, patient referrals, all of which may assist in describing the viability of the homoeopathic care in a primary health care setting, and may assist in gain information so that the clinic can be managed in the most optimal way. This may facilitate the establishment of additional clinics which will expand accessibility to homoeopathy by the general public as well as provide additional training facilities for homoeopathic students (Smillie 2010; Pramlall 2016).



Smillie (2010) conducted a study on patient files from June 2004 to June 2008. The audit showed the viability of the clinic over a 4-year period from 2004 to 2008. The clinic, has now been operating for over 9 years after the study was conducted and therefore new data is necessary in order to ascertain prevailing trends and predict new trends. There has not been any audit of any nature from 2009 to 2017 at this facility.

According to Pramlall (2016), education on homoeopathy plays an important role to gain acceptance in the public health care sector. More information on the practice of homoeopathy should be made available to the public and to health care nurses in order to prevent any misconceptions. Reliable and accurate health information is essential for monitoring health and for evaluating and improving the delivery of health-care services (Mphatswe *et al* 2012).

## **1.6 Limitations**

- Only patient files from Ukuba Nesibindi Homoeopathic Community Clinic were included in the study.
- Only patient files from July 2008 to July 2017 were included in the study.
- Any patient files that were missing information such as, dates, diagnoses, treatments and personal information were not included.

## **1.7 Conclusion**

An audit is a summary of clinical performance of health care over a specified period of time. A clinical audit is aimed at providing information to health professionals to allow them to assess and adjust their performance. Audits enhance professional performance and thereby improve quality of health care and patient safety (Flottorp *et al.* 2010). This clinical audit consisted of measuring a clinical outcome against evidential standards set by Smillie (2010), who had previously conducted an audit at UNHCHC between the period of June 2004 to June 2008. This audit was conducted to identify the changes required to improve the quality of care offered at UNHCHC.

The data obtained in the current study may serve to motivate for inclusion of homoeopathy as a contributing discipline to primary health care. The data may serve to contribute towards educating the public on the profession, the methods of practice and the various forms of treatment employed by the profession. The results of this study has provided formal clinical data including patient demographics, disease prevalence profile, consultation numbers, various homoeopathic treatment modalities and has depicted improvements that have been found at UNHCHC. The results of the study may assist in describing the viability of homoeopathy as a profession in a primary health care setting. The outcomes of the study have provided formal statistical clinical data, that represents UNHCHC, which is of relevance to the homoeopathic profession, as the results show progress and growth of the clinic over the 14-year period. This may facilitate in the establishment of additional clinics and expand accessibility to homoeopathy to the general public. Furthermore, the outcomes of the study will aid the students and supervising practitioners in improving the quality of care offered to patients.

## **CHAPTER 2: LITERATURE REVIEW**

### **2.1 Introduction**

According to Kent (1989) homoeopathy is a form of energy medicine, working with the body's own healing energy to strengthen it, using remedies that are safe, non-toxic and totally individualised to the patient for both acute and chronic illnesses. It has a different approach to conventional allopathic therapies concerning health, disease, treatment and management of patients.

The main philosophy and principle in homoeopathy states that the highest ideal of a cure is rapid, gentle and permanent restoration of the, health, or removal and annihilation of the disease in its whole extent, in the shortest, most reliable and most harmless way, on the basis of easily comprehensible principles (O'Reilly 1996).

Homoeopathy recognises life in three dimensions, namely, body, mind and the spirit, which are dependent on each other. Any disturbance of the vital energy shows itself in lack of harmony through the outward manifestation of our being, namely, symptoms. Homoeopathy acknowledges the connection of mind and emotions, body and spirit, and addresses the whole person and not just an organ or a part. The homoeopathic consultation is a gentle yet thorough exploration of the physical and emotional makeup of the patient and seeks to build up a well-rounded picture of the patient as an individual. The consultation lasts about one to one-and-a-half hours and patients discuss their symptoms and other related aspects of their lives which brings the Homoeopath an understanding of their vital force and what might have altered it (Dube 2015).

Homoeopathic treatment differs from the more conventional forms of medicine in that it is highly individualized and holistic (Kent 1989). A person's individual healing energy affects the cure (Lockie 2006). Homoeopathic treatment does not create resistance but uses extremely small doses of natural substances to stimulate the body's innate healing powers. Homoeopathic remedies are non-toxic and non-addictive (Lockie 2006). Love (2016) states that homoeopathy is a recognised and established form of

alternative medicine in the private healthcare sector of South Africa. Local research supports the viability of Homoeopathy as a primary healthcare resource.

## **2.2 Homoeopathic philosophy**

Homoeopathy is a self-consistent scientific system of medicinal therapy, which was developed by Dr Samuel Hahnemann. It is a scientifically proven system of healing that uses minute doses of specially prepared substances from plant, animal and mineral kingdoms (Gaier 1991; Yasgur 1992), which treats people and animals based on certain cardinal principles. The basic rules of homoeopathic practice were outlined by Hahnemann (1996) in his scholarly work *The Organon*, which encompasses the principles and the practice of homoeopathy (Boyd 1989; Chauhan *et al.* 2007; Lockie 2006).

### **2.2.1 Homoeopathic cardinal principles**

#### **2.2.1.1 Law of Similia**

The first fundamental principle is the law of similia, also termed the “Simile principle” or “Similia Similibus Curentur” or “Likes cures likes”. It states that substances that are capable of provoking certain symptoms in an otherwise healthy body can also act curatively on similar symptoms in a sick person (Chauhan *et al.* 2007).

#### **2.2.1.2 Law of Simplex**

The law of simplex states that only one single, simple medicinal substance is to be administered in a given case at a time. Chauhan *et al.* (2007) state that homoeopathic remedies are proved singly and have individual action. Action of multiple drugs will cause confusion for a second prescription and direction of course of the disease. Certain remedies are an antidote to each other and may interact with each other which may have an adverse effect on the patient.

### **2.2.1.3 Law of Minimum Dose**

The law of minimum dose means that a minimum dose should be prescribed at a given time. The minimum dose is that quantity of medicine which is capable of bringing about the curative reaction (Chauhan *et al.* 2007).

### **2.2.1.4 Law of Individualisation**

O'Reilly (1996) states that 'treat the patient not just the disease' is the most important doctrine of homoeopathy. Each person is unique, and their body reacts differently to the same remedy. Therefore, two patients suffering from the same disease require different remedies to initiate the healing process. The physician must acquire a totality of the patient's symptoms to obtain the individualised remedy (Cummings and Ullman 1997; O'Reilly 1996).

## **2.3 Homoeopathic medication**

Homoeopathic medicines include any drug, recorded in homoeopathic provings. A homoeopathic drug proving is a unique technique of ascertaining the pathogenetic power of a medicine on a healthy human being. The medicines are prepared according to the techniques of homoeopathic pharmacy which, is in accordance with the Homoeopathic pharmacopoeia (homoeopathic pharmacopoeia is the official book of standards of homoeopathic medicine, it is utilised to prepare homoeopathic drugs, lay down principles and standards for the preparation of homoeopathic drugs) (Chauhan *et al.* 2007).

Homoeopathic medicines are prepared following a well-defined procedure, starting from substances derived from mineral, herbal and animal sources. The techniques of preparation of these drugs include the dilution of the raw material in hydro-alcoholic solutions or in other excipients, and the potentisation of the product into different grades (World Health Organization 2009).

Homoeopathic medicines are prepared in the form of tinctures, triturations, dilutions and globules. The globules are the most convenient form for administering the minimum dose. The medicines can also be administered in liquid form (Chauhan *et al.* 2007; Iyer 2007).

## **2.4 Profession of homoeopathy in South Africa and scope of practice**

### **2.4.1 Education**

Homoeopathic training in South Africa involves a 5-year full time Master's degree in Homoeopathy (Homoeopathic Association of South Africa [HSA] 2016). The only training recognised for registration in South Africa is the Master's Degree in Homoeopathy offered at the DUT and the University of Johannesburg (Prinsloo 2011). The qualification consists of medical and scientific courses in homoeopathy as well as homoeopharmaceutics, and is a legal requirement for registration as a homoeopathic practitioner with the AHPCSA (HSA 2016). A homoeopathic practitioner is able to practise as a primary contact health professional in accordance with the scope of practice of the profession (Prinsloo 2011).

### **2.4.2 Homoeopathy Scope of practice**

The practice of homoeopathy varies but includes the usage of substances of animal, vegetable or mineral origin given in micro dosages and prepared according to homoeopathic pharmacology (Lee 2002).

Homoeopathic practitioners are recognised as a primary contact professional. Legally Homoeopaths may carry out any mental or physical examination and they are legally compelled to provide a medical diagnosis (Prinsloo 2010). According to the AHPCSA (1982), the primary function of a homoeopathic practitioner is to practice homoeopathy. A practitioner registered as a Homoeopath may, possess or have under his or her control:

- Any homoeopathic substances and substances that are not scheduled.

- Substances that are included in one of the homoeopathic materia medica and homoeopathic pharmacopoeias.

A homoeopathic practitioner can prescribe for a patient or supply to a patient any homoeopathic substance. A practitioner may formulate, compound, prepare or dispense homoeopathic medication (Allied Health Professions Council of South Africa [AHPCSA] 1982).

The Allied Health Professions Act 1982 (Act 63 of 1982) stipulates that any person wishing to prescribe Homoeopathic Medicine or practice Homoeopathy in South Africa must be registered as a Homoeopathic Practitioner with the AHPCSA (Prinsloo 2010).

#### **2.4.3 Legislation of homoeopathy and supportive bodies**

Gqaleni *et.al.* (2007) states that formal recognition of complementary and alternative medicine (CAM) practitioners in South Africa has taken many years. The major forms of CAM are chiropractors, herbalist, Homoeopaths, naturopaths and osteopaths who were able to register in 1974 (Gqaleni *et.al.* 2007; Fisher 1994). The Chiropractors, Homoeopaths and Allied Health Service Professions Act (Act 63 of 1982) provided for the establishment of the South African Associated Health Service Professions Board (Gqaleni *et.al.* 2007).

The AHPCSA is a statutory body and juristic professions established in terms of the Allied Health Professions Act, 63 of 1982 in order to regulate allied health professions, or, according to international terminology, complementary healthcare professions (AHPCSA 2017).

The AHPCSA is mandated in terms of the Act 63 of 1982 to promote and protect the health of the public; manage, administer and set policies relating to the professions registered with the AHPCSA; investigate complaints relating to the professional conduct of practitioners, interns and students; administer the registration of persons governed by the AHPCSA; set standards for the education and training of intending practitioners (AHPCSA 2017). All persons registered with the AHPCSA have the right

and privilege to practise those allied health professions for which they have been registered in terms of the Act, 63 of 1982 (AHPCSA 2017).

The Homoeopathic Association of South Africa (HSA) is a voluntary association recognised by the AHPCSA as the official representative of the homoeopathic profession in South Africa. The HSA represents and promotes the homoeopathic practitioner, the profession and education related matters (HSA 2016).

Majola (2015) states that despite the establishment of monitoring and regulatory bodies, restrictive laws regarding education and scope of practice have burdened homoeopathy in South Africa. Majola (2015) further states that studies conducted have found that this is an unnecessary restriction and it has led to limitations and isolation from allopathic professionals.

## **2.5 Department of Homoeopathy**

The Department of Homoeopathy at the DUT has contributed to primary health care by establishing four homoeopathic satellite clinics namely Ukuba Nesibindi Homoeopathic Community Health Centre (UNHCHC) established in 2004, Redhill Homoeopathic Community Health Centre (RHHCHC) established in 2005-2006, Kenneth Gardens Homoeopathic Community Health Centre (KGHCHC) established in 2012, and Cato Ridge Homoeopathic Community Health Centre (CRHCHC) established in 2016. These clinics provide health care treatment at a primary level and offer free homoeopathic treatment to patients who are dependent on primary health care facilities (Smillie 2010; Watson 2015; Dube 2015; Pramlall 2016; Taylor 2016). The aim of such clinics is to introduce an alternative, cost effective, safe and gentle form of treatment to improve the lives of people and as well as to provide the students with learning opportunities.



## **2.6 Collaboration between Lifeline and DUT**

In 2003, Lifeline and the DUT Department of Child and Youth Development combined their efforts and established a community outreach programme called Ukuba Nesibindi in Warwick Junction, aimed at building a community outreach programme to empower the youth and providing relevant free services (Watson 2015). Subsequently the Department of Homoeopathy joined the programme and established its first satellite clinic, UNHCHC, in 2004 (Ngobese-Ngubane 2018).

## **2.7 Lifeline South Africa**

Lifeline South Africa is a service organisation that responds to emotional trauma and individual crisis, and seeks to provide emotional support (Lifeline 2015). Lifeline started in 1963 in Australia. The association was introduced in Cape Town, South Africa, in 1968 and was then developed into a network of telephone counselling centres and other services offering support to those experiencing emotional distress. In Southern Africa there are 18 Lifeline centres and 13 outreach centres (Lifeline 2012).

The organisation aims to cultivate and grow emotional health in individuals and communities. This is achieved by preventing and healing emotional trauma and crisis through counselling, training, capacity building, engaging and mobilising communities (Lifeline Western Cape 2018). Lifeline states that the organisations mission is to:

- Provide accessible and confidential 24 hours counselling services.
- Identify and facilitate the establishment of self-sustaining community development programmes.
- Actively develop networks and partnerships with other non-profit organisations, businesses and government.
- Promote emotional intelligence and well-being through personal skills development.
- Conduct professional training and skills development within the private and public sectors (Lifeline Johannesburg 2012).

The services offered by Lifeline focus on supporting and developing individuals thereby enabling them to cope more effectively with the emotional effects of trauma (Lifeline 2015). The organisation provides confidential crisis intervention services which include:

- Telephone, rape and trauma counselling services.
- Training courses in personal growth and basic counselling skills.
- Outreach programmes for other welfare organisations.
- Workshops in depression, suicide, grief, loss and gender-based violence.
- HIV & AIDS awareness, counselling, testing and prevention strategies (Lifeline Pretoria 2017; Lifeline Durban 2015).

## **2.8 UNHCHC**

UNHCHC serves as an official satellite teaching clinic, which is part of both the Bachelor's and Master's Degree of Technology in homoeopathy programme. The clinic has become an established healthcare provider in the adjacent Warwick community (Watson 2015). According to Smillie (2010), a variety of health conditions present to the UNHCHC including cardiovascular, nervous, gastrointestinal, genitourinary, musculoskeletal, lymphatic and dermatological complaints. The treatment provided includes homoeopathic medication, dietary and lifestyle advice and recommendations regarding exercise, sexual protection and avoiding unhealthy activities such as smoking and excessive consumption of mind-altering substances.

## **2.9 Record keeping at UNHCHC**

The UNHCHC head clinician records all patient's details in a logbook. This has been done since its inception in 2004. The information that is recorded in the logbooks includes patient's full names, diagnosis, treatment protocol, patient education, the name of the student who took the consultation and the supervising clinician. The logbooks are kept in a locked filing cabinet within the Department of Homoeopathy for ethical safe keeping, and for statistical analysis at the end of each year. The logbooks are also a source of reference when students need to confirm their patient numbers (Ngobese-Ngubane 2018).

## UNHCHC statistics

When the clinic opened in 2004 it was operational only once a week on Friday mornings. However, over the years the numbers of patients increased due to the demand for clinic services. The clinic has grown immensely in patient numbers over the years (Lifeline Manual 2015; Smillie 2010). Patients are not charged for their consultations or medication and follow ups are encouraged (Smillie 2010). The study conducted by Smillie (2010) of UNHCHC showed that the majority of patients who visited the UNHCHC were unemployed, middle aged, single African females. The most common illnesses encountered at UNHCHC were of an infectious nature mainly Human Immunodeficiency Virus (HIV) and Tuberculosis (TB). The UNHCHC treats the symptoms, complications and consequences of these illnesses and does not claim to treat the illnesses directly.

Dube (2015) states that the total number of patients consulted from 2004 to 2014 (10 years) was 3 328. According to statistics for 2015-2016, 2 609 consultations took place (Ngobese-Ngubane 2018).

### **2.10 Primary health care**

Primary health is defined as the science and the art of preventing disease, prolonging life, and promoting physical health and efficiency through organised community efforts for the sanitation of the environment (Schneider 2017). Primary healthcare services combine family health services (general practitioners, dentist, pharmacies and opticians) and community health services (community health professionals and community nurses) (Salter 1998). Primary healthcare forms an integral part of a country's health care system (MacDonald 1996).

Primary health care is an approach to the planning of health services which aims to:

- Address the main health problems in the community by providing preventive, curative and rehabilitative services accordingly.
- Includes education concerning prevailing health problems and the methods of preventing and controlling them.

- Promotion of food supply and proper nutrition, an adequate supply of safe water and basic sanitation, maternal and child health care (Macdonald 1996; Nadasen 2000).

In South Africa, the Health Professions Council of South Africa (HPCSA) and the AHPCSA are the respective statutory bodies established to represent and oversee the provision of allopathic and complementary healthcare services to the public. The South African public healthcare system provides healthcare services at public healthcare facilities and public health clinics distributed throughout the country. Complementary healthcare services are not included in the public healthcare system of the country and exist almost exclusively in the private sector within South Africa (Love 2016).

The primary healthcare system has been adopted as the overarching policy and the structure for health care in South Africa. The goal set for the health sector is to ensure the emphasis is on health and not only on medical care (Van Rensburg 2004).

## **2.11 Homoeopathy and primary health care**

Homoeopathy is a system of medicine and an alternative method of treating illness. In some cases, it can be used to complement conventional medicine like surgery, acute trauma and overwhelming infections. An important characteristic of homoeopathy is that it aims to restore the self-healing potential of the organism; it accomplishes this by using the lowest possible dose that would provoke a reaction in the organism (Van Rensburg 2004). Van Haselen *et al.* (2004) states, that the use of Complementary and Alternative Medicine (CAM) in primary care is growing, but it is still not widespread. Little is known about how CAM can or should be integrated into mainstream care.

In South Africa, homoeopathic treatment is mainly available in the private health care sector. Pramlall (2016), who conducted a retrospective clinical audit at RHHCC mentions that, in Durban, South Africa, homoeopathic treatment has been made available free of charge to the public at the RHHCC, UNHCHC, KGHCC and CRHCC. Homoeopathy is being applied as a form of community based primary healthcare within the public sector at these clinics.

South Africa's healthcare system consists of a large public sector and a small private sector. The public sector is under-resourced and over-used. Homoeopathic practices in South Africa are mainly available to the small private sector but have the potential to be active primary healthcare providers. The addition of homoeopathy to existing PHCs would be of benefit to the current healthcare system. (Smillie 2010).

According to Van Rensburg (2004), the allopathic health care system in South Africa and most societies worldwide constitute the dominant form of health care but do not represent the total health care supply. The official health care supply in South Africa is also supplemented by a significant alternative care supply. Several surveys have been carried out to ascertain the utilisation of CAM (including homoeopathy, chiropractic, osteopaths, herbalists and naturopaths) but it has not been possible to estimate exactly the extent of use of such therapies. Van Rensburg (2004) further states that it is impossible to determine the personal supply in the alternative healthcare sector accurately as the available data is limited to the associated health service occupations like homoeopathy, chiropractic and other alternative therapies.

Little information regarding the public acceptance of alternative therapies is available, although a study conducted by the Human Sciences Research Council depicted that 61.1% of the population had knowledge of alternative medical services and gained information on those services through personal communication (Van Rensburg 2004). According to Van Rensburg (2004), there is a high degree of acceptance of alternative therapies by the South African public. Smillie (2010) points out that homoeopathy is currently not included officially within the public primary healthcare sector in South Africa although it could serve to enhance the sector and improve access to the healthcare.

Smillie (2010) found that the practice of homoeopathy in primary health care is feasible especially in impoverished communities according to the patient numbers, growth rate and the rate of return patients to the UNHCHC. These rates suggest that the inclusion of homoeopathy as a contributing discipline can aid in meeting the high demand for primary health care systems in South Africa. It can also motivate for the establishment of more homoeopathic health care clinics in the public sector.

This will provide a valuable health care service and aid in the expansion of knowledge about homoeopathy (Smillie 2010; Pramlall 2016).

In the United Kingdom homoeopathic hospitals are located in various sites (Bristol, Glasgow, Liverpool, London and Tunbridge wells) and Thompson *et al.* (2008) states that, the five hospitals have been an intrinsic part of the United Kingdom's National Health Service since its inception in 1948.

Sheffield's National Health Service Community Menopause Clinic in the United Kingdom has offered homoeopathic services since 1998. The services provide an alternative treatment option for menopausal women. A study piloted in this clinic showed the viability of homoeopathy as 83 menopausal patients out of 102 patients reported an improvement in symptoms with the treatment of homoeopathy (Relton and Weatherley-Jones 2005). A study that was initiated as part of a quality improvement audit to better the outcomes of homoeopathic treatment showed that when patients with chronic conditions are treated with homoeopathic care their presenting symptoms and wellbeing often improve (Thompson, Viksveen and Barron 2016). A National Health Service homoeopathic clinic that had been functioning for 10 years conducted a study over a 5-year period to evaluate the outcome of patients attending the clinic. The results confirmed that 37 general practitioners from 15 different practices referred 273 patients to the clinic (Bawden 2012).

A study by Riley *et.al* (2001) regarding the clinical practice of homoeopathy and its use in primary care, found that 84% of patients in the group treated with homoeopathy received no conventional medicines, suggesting that homoeopathy was being used as an independent treatment modality in primary care. Further, this study states that, despite the individualised nature of homoeopathic treatment, it appears that clinical pathways to a specific prescription exist. This suggests that homoeopathy can be evaluated in clinical trials and can be integrated into the primary health care setting.

The data obtained in the current study may serve to motivate for inclusion of homoeopathy as a contributing discipline to primary health care. The data may serve to contribute towards educating the public on the profession, the methods of practice and the various forms of treatment employed by the profession, as it is evident to the

researcher that there is limited data available to the public concerning this. The fact that homoeopathy can be integrated into the primary health care sector in a first world country such as the United Kingdom provides evidence that it is possible to include homoeopathy as a contributing discipline to primary health care.

## **2.12 Demographics of Warwick Junction**

Skinner (2009) states that Warwick Junction is on the edge of the inner city and the land is utilised for residence, transport and trade purposes. The precinct is considered to be the oldest racially mixed residential area in Durban. Warwick Junction is the primary transport node in Durban (Skinner 2009; Chazan 2005). The area houses three formal market buildings with an estimate of 8 000 street traders, the majority of whom are women. There is an estimated number of 500 000 informal street traders in South Africa and 20 000 in Durban, the majority being African and 70% are women (Chazan 2005). There is an estimated average of 460 000 commuters that walk through Warwick Junction every day Skinner (2009). Such high foot traffic makes the area a lucrative and desirable site, for a clinic such as UNHCHC, as this would contribute to the increase in patient number as well as awareness of the clinic and homoeopathy as a profession to the general public.

## **2.13 Related research**

The first and only clinical audit conducted at UNHCHC was conducted by Smillie (2010) for the years 2004 to 2008. Smillie (2010) states that the audit evaluated the practices of UNHCHC and the audit showed the viability of the clinic over a 4-year period.

The Sheffield's National Health service community menopause clinic in the United Kingdom conducted a clinical audit that assessed homoeopathic services in menopausal women, between January 2001 and December 2003. The results obtained from the audit showed that patients had significant benefit from the service (Relton and Weatherley-Jones 2005). Another study in the United Kingdom evaluated the range of medical conditions that secondary doctors treat using homoeopathy.

The results emphasised that the information acquired from the study contributed to developing programmes of standard setting of homoeopathic care in the hospital outpatient context (Thompson *et al.* 2008). An article based on a clinical audit conducted to measure homoeopathic clinical practice for chronic conditions in the United Kingdom, adds to a growing body of observational data which show that patients with chronic conditions treated with homoeopathic care often improve (Thomson *et.al* 2016).

The above supporting information leads the researcher to conclude that clinical audits are an important element that contribute towards the growth of health facilities and towards the medical profession, as well the homoeopathic profession. The first audit conducted at UNHCHC was in June 2004- June 2008, there has not been an audit conducted at UNHCHC during the 10 -year service period. Without such audits, UNHCHC cannot continue to develop programmes, update diagnostic tools and equipment, that will contribute to the growth of the clinic and patient care. Van Rensburg (2004), mentions that several surveys have been carried out to ascertain the utilization of CAM (including homoeopathy, chiropractic, osteopaths), but it has not been possible to estimate exactly the extent of use of such therapies. Such audits as this study will assist and contribute to the general public, being educated about homoeopathy. The total number of patient consultations during the 10-year period will form part of the results of the study. The results there of, will contribute statistically towards the measure of the extent of usage of homoeopathy by the general public. The results will also form part of newly found clinical data, regarding the profession of homoeopathy, which will contribute towards the increase of limited data. As Van Rensburg (2004), states that data is limited to associated health service occupations like homoeopathy.



## **2.14 Previous findings at UNHCHC by Smillie (2010)**

According to Smillie (2010), UNHCHC opened in 2004 and operated Friday morning. The operational hours were increased in 2006 to three consultation afternoons per week. Smillie (2010) further states that there was a total number of 862 patients (497 new patients and 365 follow up patients) that consulted between the period June 2004 to June 2008. African (80%) females (68%) between the ages 40 to 64 (36%) who were unemployed accounted for the majority of consulting patients. Infectious diseases, cardiovascular diseases, dermatological diseases, psychological diseases and musculoskeletal diseases were the five most prevalent systemic disorders that presented at UNHCHC.

Smillie (2010) recommended the following in order to improve service delivery:

- Provision of diagnostic equipment (glucometer and pregnancy testing kits).
- Translators to made available at UNHCHC.
- Computer aided repertorisation software to streamline the process of finalising the respective prescriptions.
- Provision of a computerised filing and labelling system.
- An addition of a clinician's assistant to assist with administrative requirements at UNHCHC.
- UNHCHC to commence with clinical activity operations as early as January so as to minimise the impact of December holidays on service provision.

Smillie (2010) concluded that the significant increase in patient numbers at UNHCHC was suggestive of growth and clinical success. With additional funding UNHCHC can improve service provision further.

## **2.15 Significance of clinical audits**

According to the bulletin of the Kuwait Institute for Medical Specialization (Al-Baho and Serour 2002), the subject of audit has been increasingly recognised as an important topic in the medical profession. Audits were officially introduced in the United Kingdom in 1985.

It is recognised as a tool for measuring quality and improvements; it is concerned with assessing and improving the delivery of healthcare, the resources used, the care given and the outcomes.

Dilnawaz, Mazhar and Shaikh (2012) states that clinical audits measure practice against standards and performance. Regular clinical audits are essential; this process facilitates improved patient care, identifies and promotes good practice, leading to improvement in service delivery. Audits also demonstrate effective service, and provide opportunities for education and training.

Lokuarachchi (2006) mentions that a clinical audit is a process in which practitioners can work to retain the trust and respect of patients, in an increasingly critical and challenging environment. Furthermore, it provides a systematic mechanism that compares the care provided to the evidence based best practice and assists in identifying deficiencies in the system and methods of improving them (Lokuarachchi 2006).

Clinical audits act as a motivating factor for individuals by sharing outcomes and identifying areas of concern so that timely remedial action can be taken. They have an increasingly important role in the quality of care offered to patients. Good quality data can enable valid conclusions to be drawn, which enables changes to be made for the better and ensure that patients receive high standard and best quality care (Verma 2009; Dilnawaz *et al.* 2012).

## **2.16 Conclusion**

This study is anticipated to be a key research tool for advancing homoeopathic and medical knowledge and patient care. This study has been conducted to ascertain the different trends in, diseases, frequently prescribed medications, patient's demographic profile and improvements found at UNHCHC. The information rendered from this study will serve as statistical knowledge to the DUT community and general public.

The results will also illustrate as proof that, the clinic (UNHCHC), homoeopathy as a form of therapy and homoeopathy as a profession has becoming increasingly known to the general public. The researcher has also anticipated for the outcomes to demonstrate the progress and growth of UNHCHC over that 10-year period.

Comparing of clinical data obtained from audits is of crucial importance as it enables the, students and homoeopathic practitioners at UNHCHC to create changes for the better and ensures that patients receive quality care.

## CHAPTER 3: RESEARCH METHODOLOGY

### 3.1 Description

The study design is a comparative retrospective, explanatory and descriptive study by means of a clinical audit to determine the patient demographic and disease prevalence profile, consultation patterns as well as to identify and describe various treatment protocols of UNHCHC and compare these results with Smillie (2010) study.

The objectives of the study were to:

- **First objective:** To determine the patient demographic profile and the disease profile at UNHCHC from July 2008 to July 2017.
- **Second objective:** To describe various treatment protocols prescribed at UNHCHC from July 2008 to July 2017.
- **Third objective:** To compare the results of this study to a retrospective study done in June 2004 to June 2008 by Smillie (2010).
- **Fourth objective:** To check if there were any improvements made at UNHCHC according to the recommendations made by Smillie (2010).

Objectives one and two was analysed using the data collection tool displayed in Appendix D and objective three was analysed by comparing the results of the study to the previous clinical audit conducted at UNHCHC by Smillie (2010). Objective four was analysed by comparing the recommendations made by Smillie (2010) to the improvements at UNHCHC. When interviewed on the 08 August 2018 Dr Harripersad (senior clinician at UNHCHC) confirmed the improvements observed by the researcher.

### 3.2 Aim

The aim of this 10 year (2008 to 2017), comparative, retrospective, descriptive, explanatory, study was to determine the patient demographics, disease prevalence profile, consultation patterns and identify the major medicines prescribed at UNHCHC, and compare these results with Smillie (2010) study.

### **3.3 Research design**

According to the Handbook of Research for Educational Communications and Technology (2004), descriptive research involves gathering data that describes events and then organises, tabulates, depicts and describes the data collection. It often uses visual aids such as graphs and charts, to help the reader understand the data distribution. This comparative and retrospective clinical audit was conducted at UNHCHC. The study used a comparative, retrospective, explanatory and descriptive design method by means of a clinical audit to determine the patient demographic and disease prevalence profile, as well as identify and describe various homoeopathic treatment modalities of UNHCHC and assess any improvements achieved at UNHCHC during the 10-year period according to the recommendations made by Smillie (2010). The data collection form was divided into patient demographic information (such as race, age and gender), employment history, number of consultations (new and follow up), disease conditions, examination procedure (such as urine dipstick and full comprehensive physical examination), and treatment protocol. UNHCHC logbooks were used to facilitate the process to identify all files of patients who attended UNHCHC after June 2008. The UNHCHC logbooks contain patient names, surnames, date of consultations, medications prescribed and patient diagnoses.

### **3.4 Selection criteria**

#### **Inclusion Criteria:**

1. Only patient files from UNHCHC.
2. Only files with signed patient consent forms.
3. All files with all the pertinent information such as, the dates of consultation, diagnosis and treatment protocols.
4. All consultation data that was recorded during the period of July 2008 to July 2017 was sampled.
5. Only UNHCHC logbooks from July 2008 to July 2017 were utilised to facilitate the process to identify all files of patients.
6. No data, which could identify respective patients, was captured.

## **Exclusion criteria**

All files that did not meet the inclusion criteria as stated above were excluded.

### **3.5 Procedure**

All patient files were kept at UNHCHC for the entire duration of the study. Patient confidentiality was maintained as patient names or any data that, could identify patients were not captured. A file number was allocated to each patient file. The procedure was as follows:

- Step one: The researcher obtained permission from all relevant stakeholders prior to starting with the study (Appendix B).
- Step two: The researcher extracted information from the logbooks. The logbooks are source of data that, determine which patient files would be included in data collection.
- Step three: The head clinician or supervisor confirmed that the information extracted from the logbooks and patient files were accurate and well documented.
- Step four: A data collection sheet (Appendix D) was adapted from Smillie (2010) and Pramlall (2016) after permission had been granted.
- Step five: The researcher was given access to the UNHCHC files under the supervision of the head clinician.
- Step six: The researcher returned all files to the head clinician for filing accordingly.
- Step seven: The researcher conducted data analysis at the DUT research room. The results were analysed by using various forms of descriptive statistics such as pie charts and bar graphs using Excel from Microsoft Office.

### **3.6 Data collection tool**

The data collection sheet (Appendix D) was adapted from Smillie (2010) and Pramlall (2016) after permission was granted by them. The data collection sheet was previously used in a clinical audit of the RHHC. It was used to capture data such as patient demographics, which included gender, employment, age, marital status and race. It was also used to capture the number of consultations, the diagnoses, any diagnostic tools that were applied or requested, referrals and details of medicines prescribed and dispensed (Pramlall 2016).

### **3.7 Data analysis**

The data obtained was evaluated and analysed using Microsoft's Excel version 2016. Data was entered into a spreadsheet and results were transferred directly and placed into an Excel spreadsheet for interpretation. The extracted data was analysed with SPSS (version 25®). Various forms of descriptive statistics were applied such as bar graphs, and pie charts as well as tables.

The following information was recorded:

- The number of new patients and follow up patients, which took place during the period of July 2008 to July 2017.
- Patient demographics such as:
  - Race
  - Age
  - Gender
- Year of the first consultation
- Number of follow up visits
- Diagnoses for each visit
- The number of medicines prescribed in terms of remedy name, potency, dosage, frequency. Quantity used each year as well as the names and classification of each medicine were recorded. These were classified as:
  - Herbal
  - Homoeopathic

- Bach Flower remedies
- Phytotherapeutic complexes
- Tissue salts.

Statistical correlation between Smillie (2010) using Chi Squares determined if things had changed since Smillie (2010) conducted her study. Evidence of recommendations and implementation were also analysed and compared to Smillie (2010) study.

### **3.8 Ethical considerations**

As the UNHCHC patient files are subject to routine privacy legislation, each respective patient's identity was protected; no data which can identify the respective patients was captured. Data capture took place at the UNHCHC site and respective files were not copied or removed from their routine place of secure storage. The researcher, a homoeopathic student, who routinely performed clinical duties at UNHCHC, had access to the respective files, and the head clinician at UNHCHC, were the only researchers who accessed the files. Every patient visiting UNHCHC is required to fill out a consent form since the inception of UNHCHC in 2004. Permission to access the patient files was obtained when the patients who visited the clinic signed the consent form (APPENDIX A & B,). The only data captured from the files were the diagnoses, medicines prescribed, potency of medicine, demographics, and new patient or a follow up patient information.

### **3.9 Conclusion**

Chapter 3 depicted the methodology which the researcher utilised to conduct the research study. This chapter illustrated the approach that was used to investigate the research problem and obtain the objectives of the study.

The next chapter (Chapter 4) presents the analysis of the data.



## CHAPTER 4: PRESENTATION OF RESULTS

### 4.1 Introduction

This chapter presents data extracted from patient's files visiting UNHCHC from 2008 to 2017 consultation period. The extracted data was analysed with SPSS (version 25<sup>®</sup>) in relation to the objectives outlined in Chapter 1, namely:

- **First objective:** To determine the patient demographic profile and the disease profile at UNHCHC. from July 2008 to July 2017.
- **Second objective:** To describe various treatment protocols prescribed at UNHCHC. from July 2008 to July 2017.
- **Third objective:** To compare the results of this study to a retrospective study done in June 2004 to June 2008 by Smillie (2010).
- **Fourth objective:** To check if there were any improvements made according to the recommendations made by Smillie (2010).

### 4.2 Patients descriptive statistics as elicited from their files

In this section of the data presentation, the biographical data of the visiting patients are presented.

#### 4.2.1 Biographical information

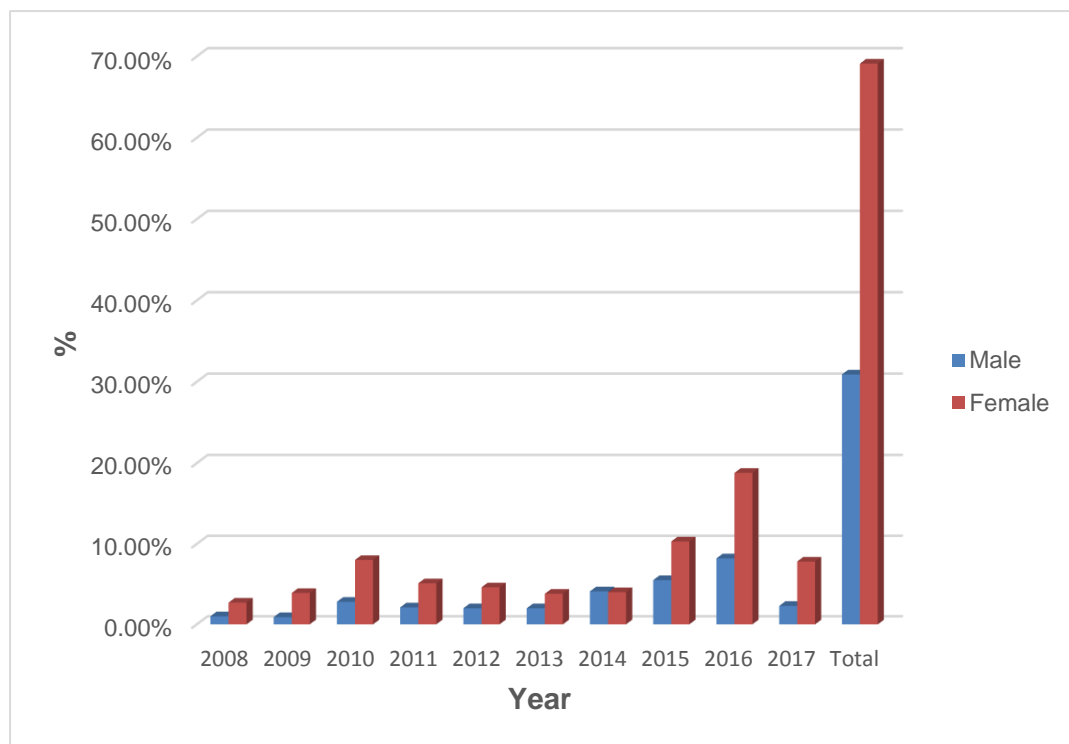
This section summarises the biographical characteristics of the patients that consulted the UNHCHC between July 2008 and July 2017.

##### 4.2.1.1 Gender distribution of patients

Table 4.1: Gender distribution of patients

Gender	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Male	1.00%	0.90%	2.80%	2.10%	2.00%	2.00%	4.10%	5.50%	8.20%	2.30%	30.90%
Female	2.70%	3.90%	8.00%	5.10%	4.60%	3.80%	4.00%	10.30%	18.80%	7.80%	69.10%

Pearson Chi-Square tests = 0.000



**Figure 4.1: Gender distribution of patients**

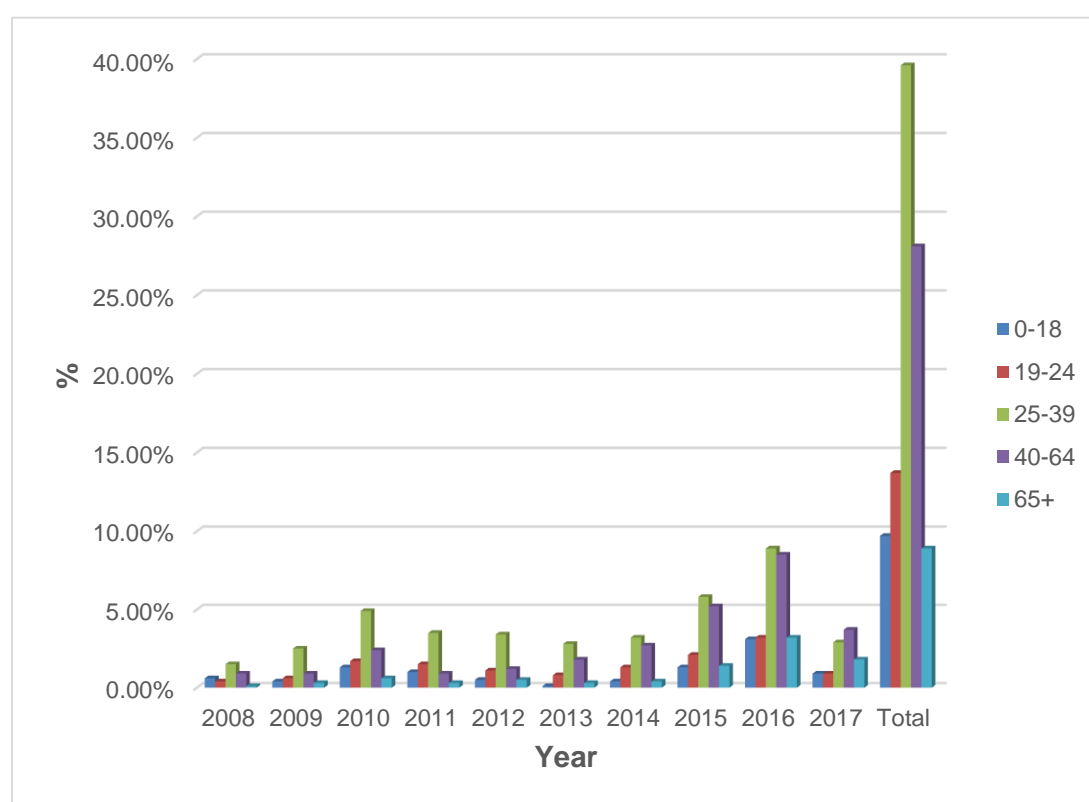
The gender distribution of the patients is shown in Table 4.1 and Figure 4.1. As indicated by the Pearson Chi-Square. A significant difference was observed in the gender distribution over the 10-year period ( $P < 0.001$ ). It was observed that the majority of the visiting patients from July 2008 to July 2017 periods were females (69.10%) while male constituted 30.90% of the visiting patients. As depicted in Figure 4.1, it was observed that the annual gender distribution at the UNHCHC was relatively unchanged over the 10-year period. Only year 2014 did not have much of a difference between females (4.0%) and males (4.1%), and where the male numbers were higher for that year. In 2016 the clinic had seen the most number of females and males, compared to the other years.

#### 4.2.1.2 Age distribution of consulting patients

**Table 4.2: Age distribution of the patients**

Age	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
0-18	0.6%	0.4%	1.3%	1.0%	0.5%	0.1%	0.4%	1.3%	3.1%	0.9%	9.7%
19-24	0.4%	0.6%	1.7%	1.5%	1.1%	0.8%	1.3%	2.1%	3.2%	0.9%	13.7%
25-39	1.5%	2.5%	4.9%	3.5%	3.4%	2.8%	3.2%	5.8%	8.9%	2.9%	39.6%
40-64	0.9%	0.9%	2.4%	0.9%	1.2%	1.8%	2.7%	5.2%	8.5%	3.7%	28.1%
65+	0.1%	0.3%	0.6%	0.3%	0.5%	0.3%	0.4%	1.4%	3.2%	1.8%	8.9%

Pearson Chi-Square = 0.000



**Figure 4.2: Age distribution of patients**

Table 4.2 highlights the age distribution of the consulting patients. The Pearson Chi-Square test indicates that the age distribution of the patients was statistically significant ( $P < 0.001$ ). It was noted that patients within the age group 25 to 39 years (39.6%) represented the largest group of patients, followed by 40 to 64 years (28.1%). In addition, as shown in Figure 4.2, it can be gathered that patients within the age of 0 to 18 years (9.7%) and those 65+ (8.9%) were the lowest represented age groups.

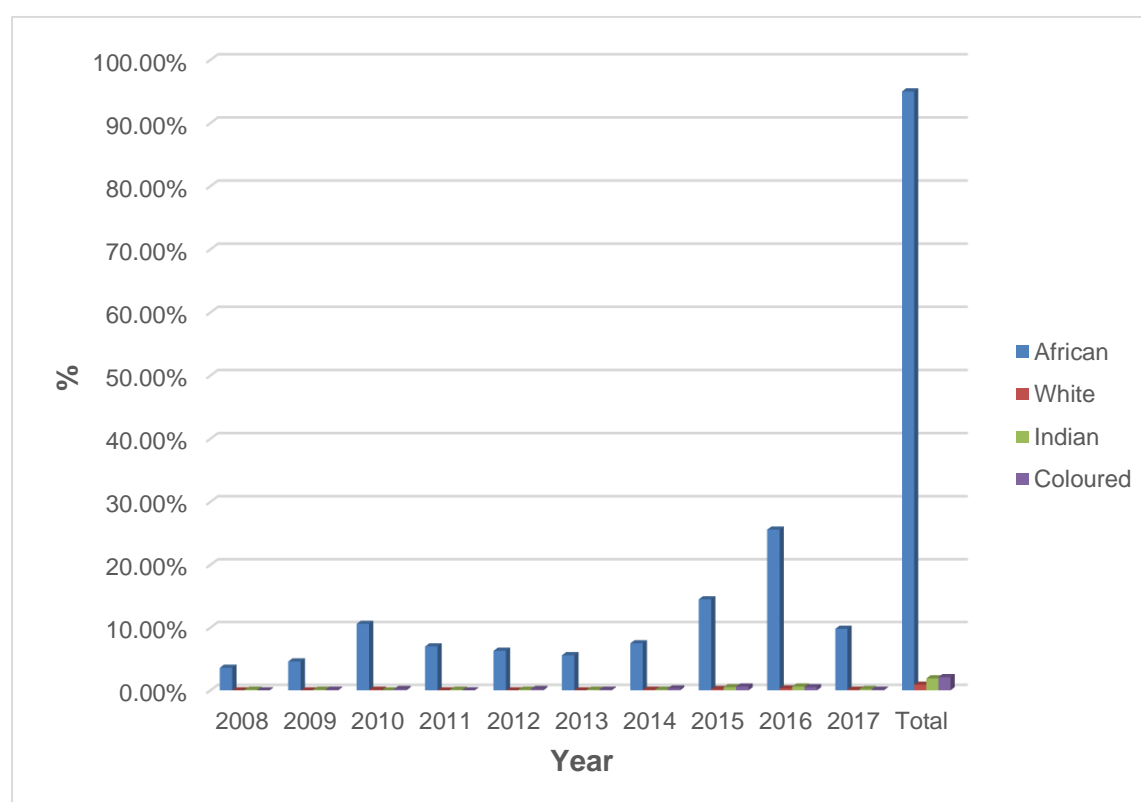
The number of patients for each age group had increased the most in 2016, compared to the other years.

#### 4.2.1.3 Race distribution of patients

**Table 4.3: Race distribution of the patients**

Race	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
<b>African</b>	3.6%	4.6%	10.6%	7.0%	6.3%	5.6%	7.5%	14.5%	25.6%	9.8%	95.0%
<b>White</b>	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.1%	0.2%	0.3%	0.1%	0.9%
<b>Indian</b>	0.1%	0.1%	0.0%	0.1%	0.1%	0.1%	0.1%	0.5%	0.6%	0.2%	1.9%
<b>Coloured</b>	0.0%	0.1%	0.2%	0.0%	0.2%	0.1%	0.3%	0.6%	0.5%	0.1%	2.1%

Pearson Chi-Square test = 0.258



**Figure 4.3: Race distribution of patients**

The racial profiles of the patients over the 10-year period are summarised in Table 4.3 and Figure 4.3. Although the Pearson Chi-Square test failed to show significant differences, beyond the  $P < 0.05$  interval level, it was observed that patients visiting UNHCHC were overwhelmingly African (95.0%) with White patients having the lowest representation (0.9%). While the Indian patients were (1.9%) and Coloured patients

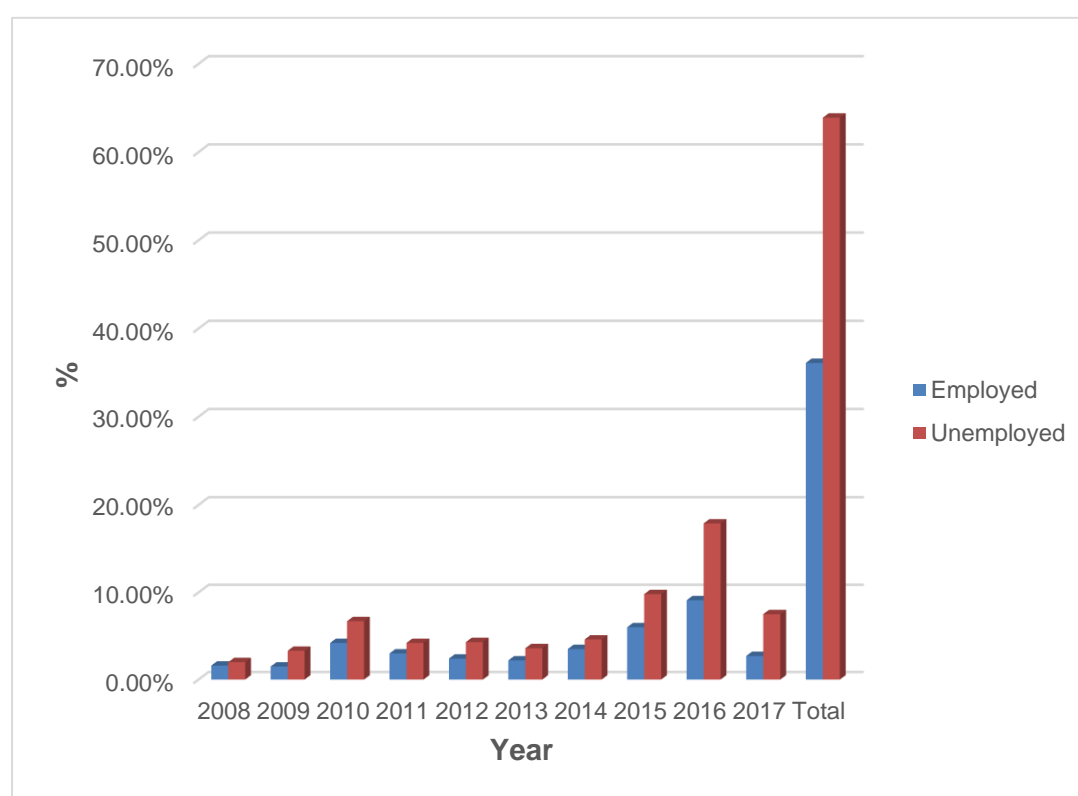
were (2.1%). In 2016 the number of African, White and Indian patients at the clinic had increased the most, compared to the other years, while the number of coloured patients had slightly decreased.

#### 4.2.1.4 Employment distribution of patients

**Table 4.4: Employment status of the patients**

Employment status	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
<b>Employed</b>	1.6%	1.5%	4.2%	3.0%	2.4%	2.2%	3.5%	6.0%	9.1%	2.7%	36.1%
<b>Unemployed</b>	2.0%	3.3%	6.7%	4.2%	4.3%	3.6%	4.6%	9.8%	17.9%	7.5%	63.9%

Pearson Chi-Square = 0.002



**Figure 4.4: Employment status of patients**

As shown in Table 4.4 and Figure 4.4, the majority (63.9%) of the patients that consulted UNHCHC during the study period were unemployed while (36.1%) were employed. Overall, the Pearson Chi-Square indicates that the employment status was different over the 10-year period ( $P < 0.002$ ). In 2016 the clinic had seen the most number of patients that were unemployed, and also had an increase in the number of patients that were employed, compared to the other years.

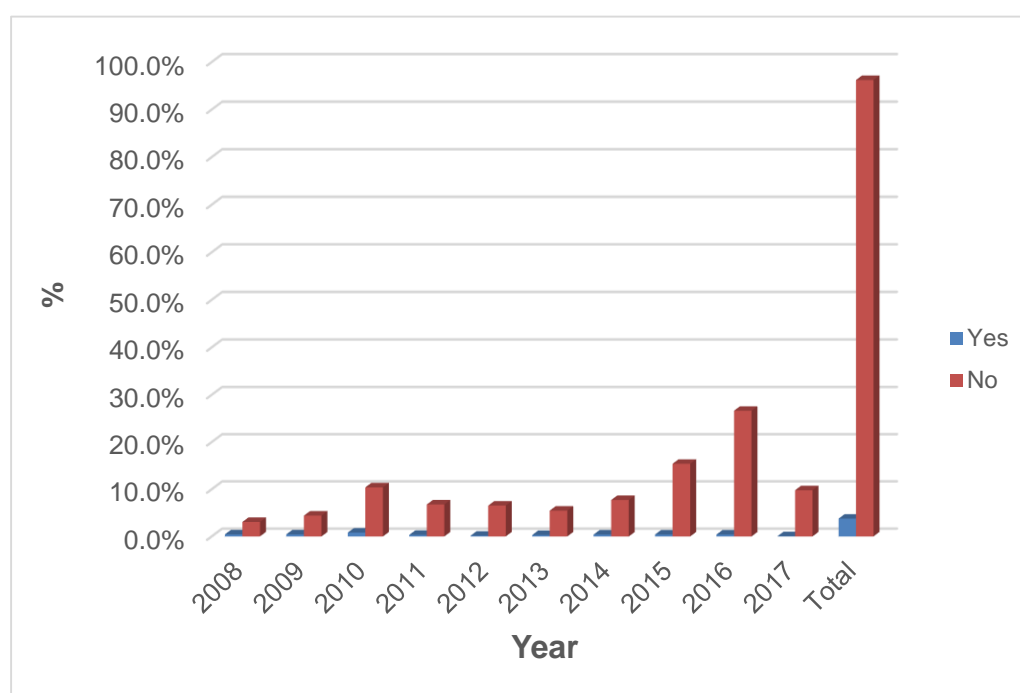
### 4.3 The consultation patterns of patients

This section summarises the consultation and follow-up patterns of the patients visiting UNHCHC in the study period July 2008 to July 2017.

#### 4.3.1 Referrals

**Table 4.5: Number of patients referred**

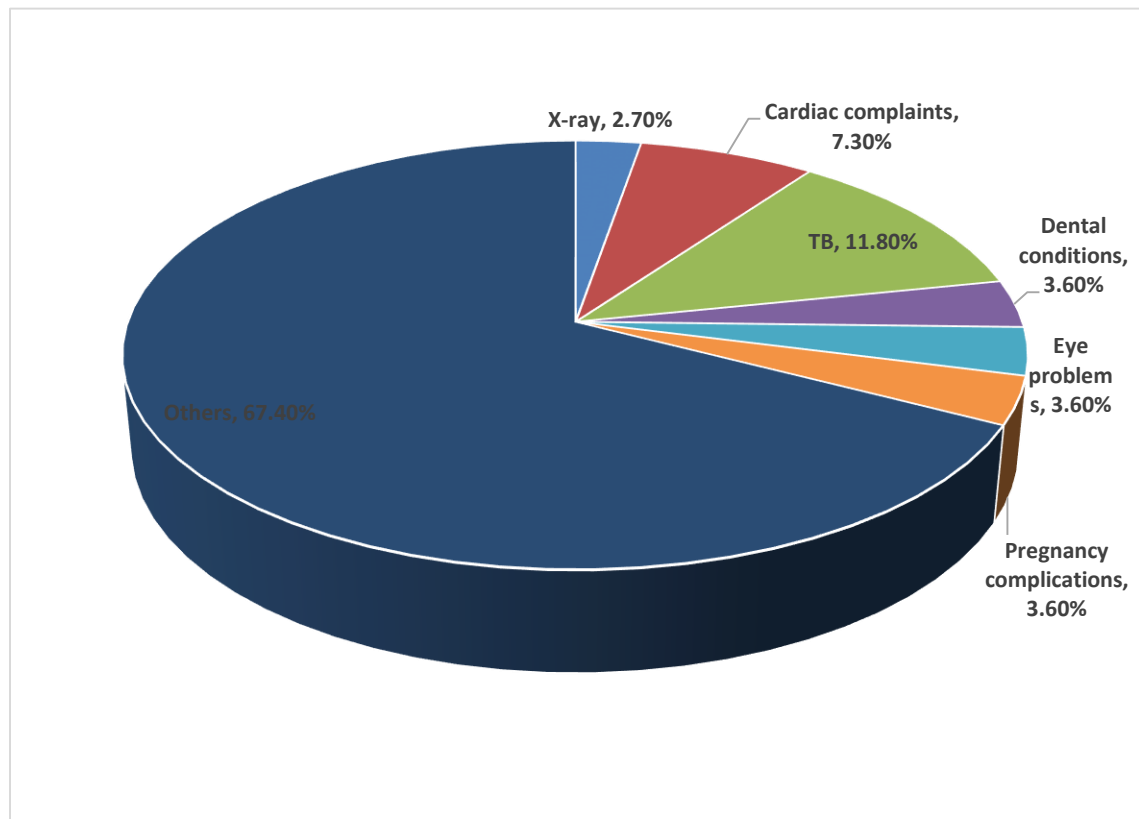
Referral	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Yes	0.4%	0.4%	0.8%	0.3%	0.2%	0.3%	0.4%	0.4%	0.4%	0.1%	3.8%
No	3.1%	4.4%	10.4%	6.8%	6.5%	5.5%	7.7%	15.4%	26.6%	9.8%	96.2%



**Figure 4.5: Percentages of patients referred**

The total number of patients that were referred during the study period is shown in Table 4.5 and Figure 4.5. It was observed that only 3.8% of the patients seen at UNHCHC were referred.

#### 4.3.1.1 Reasons for referral

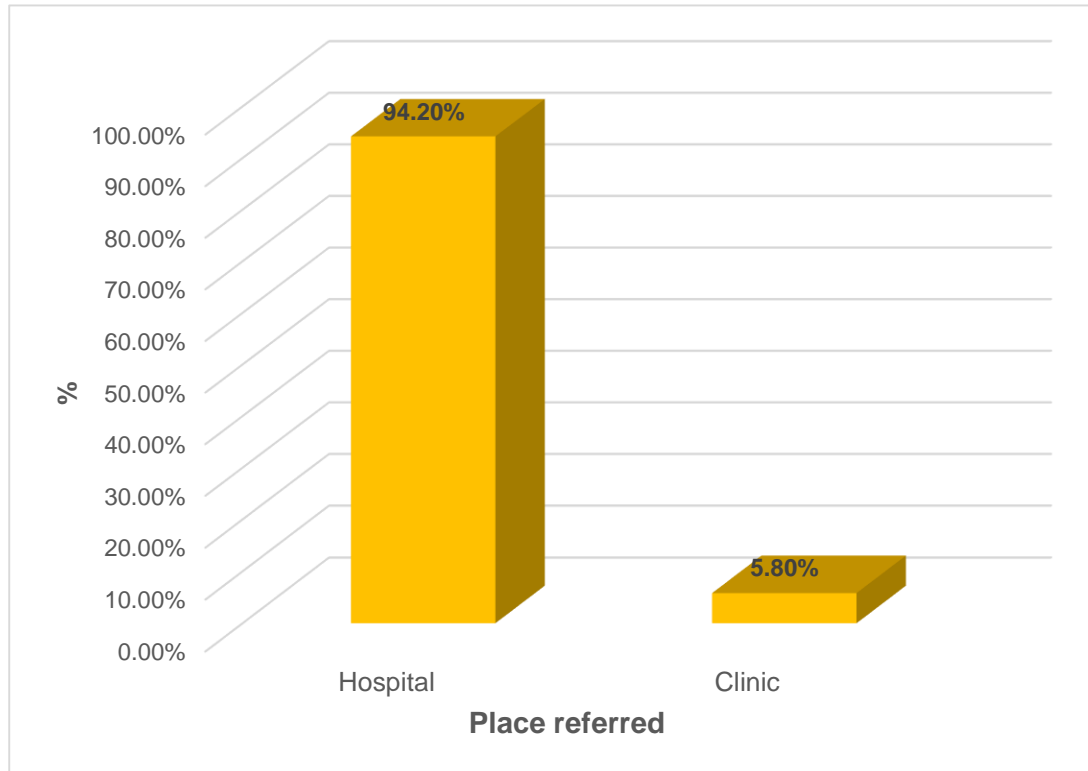


**Figure 4.6: Reasons for referral of patients**

Figure 4.6 depicts the reasons why patients were referred to other medical facilities outside the UNHCHC. It emerged that TB testing (11.80%) was the most common reason why patients were referred with X-Ray (2.70%) being the least common reason for referral.



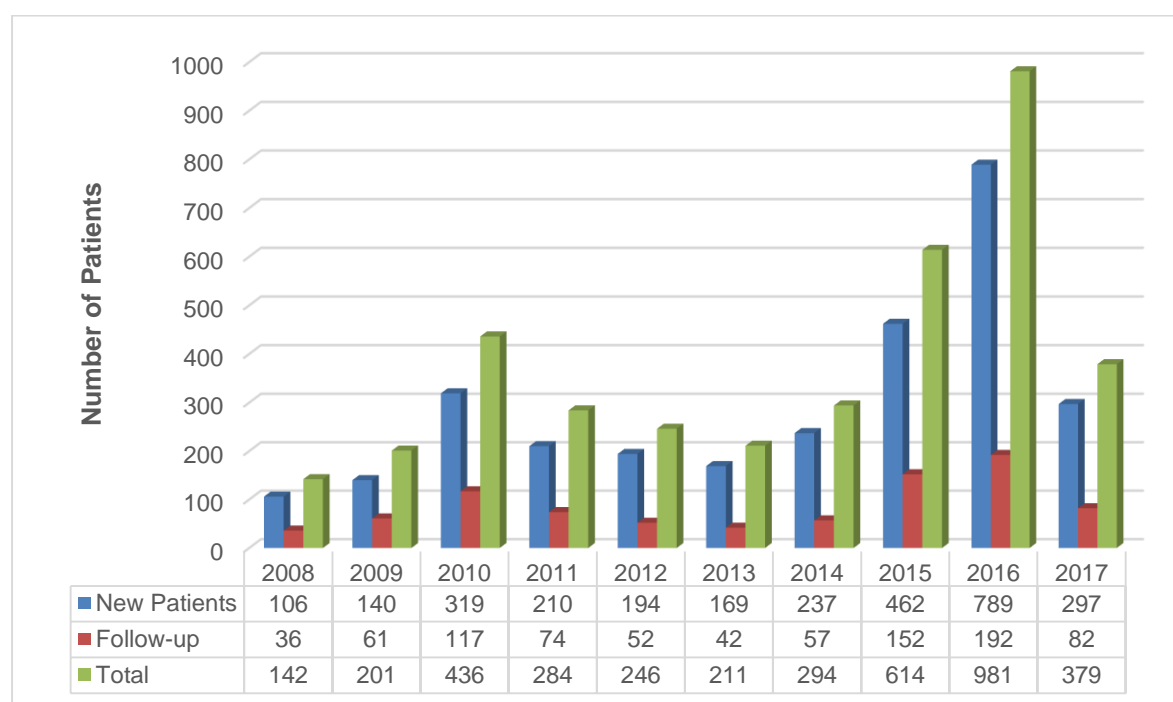
#### 4.3.1.2 Place referred to



**Figure 4.7: Place patients were referred to**

The place the patients were referred to is given in Figure 4.7. It can be seen that 94.2% were referred to hospitals, while (5.80%) were referred to a government clinic.

### 4.3.2 Assessing the consultation patterns of patients



**Figure 4.8: Number of new patients and follow-up patients**

Figure 4.8 depicts the consultation pattern of the patients that consulted UNHCHC during the study period July 2008 to July 2017. It was observed that 2016 had the highest number of consultations, followed by the second highest in 2015. Equally important, it can be gleaned that consultations at UNHCHC rapidly increased over the 10-year period. Similarly, the number of follow-up visits of the patients also increased during the study period with 2016 showing the highest number of follow-up consultations.

### 4.3.3 Evaluating the number of follow-ups

The previous section suggests that 2016 had the highest number of consultation and follow-up visits of patients attending UNHCHC. This section aimed to evaluate the number of times patients were followed-up during the study period.

**Table 4.6: Number of times patients were followed -up**

<b>Fellow-ups</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>Total</b>
1	28	42	56	40	33	25	28	67	122	53	494
2	4	11	25	20	12	9	9	37	37	23	187
3	2	5	16	6	3	3	8	16	20	6	85
4	1	1	9	3	4	0	2	10	6	0	36
5	1	0	2	3	0	3	3	8	1	0	21
6	0	0	3	0	0	2	3	4	4	0	16
7	0	0	3	1	0	0	1	4	1	0	10
8	0	0	2	1	0	0	1	2	0	0	6
9	0	1	1	0	0	0	0	0	0	0	2
10+	0	1	0	0	0	0	2	4	1	0	8

Pearson Chi-Square test = 0.000

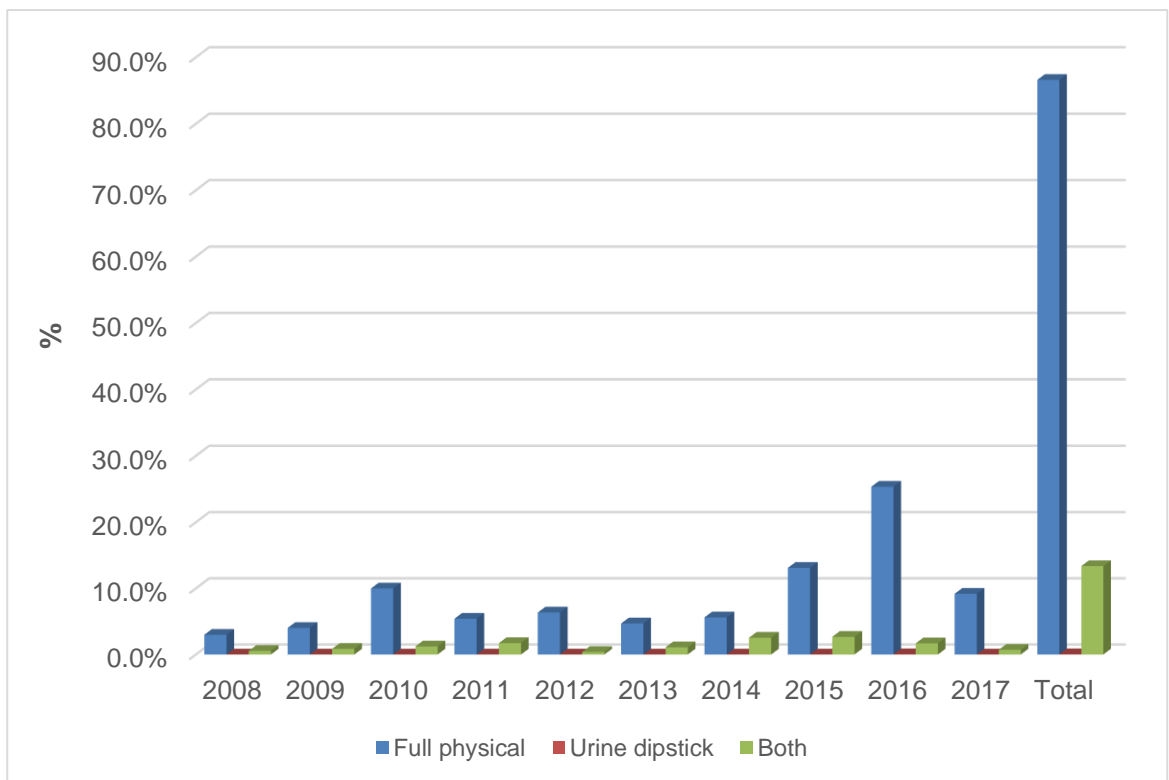
Table 4.6 shows that the majority of patients had only one follow-up after the first consultation, followed by those with two follow-ups.

#### 4.4 Types of diagnostic tools

**Table 4.7: Common diagnostic tools used for patient examination**

<b>Diagnostic tools</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>Total</b>
<b>Full physical (comprehensive physical examination)</b>	3.0%	4.0%	10.0%	5.4%	6.3%	4.7%	5.6%	13.1%	25.3%	9.2%	86.6%
<b>Urine dipstick</b>	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Both</b>	0.5%	0.8%	1.2%	1.7%	0.4%	1.1%	2.5%	2.7%	1.7%	0.7%	13.4%

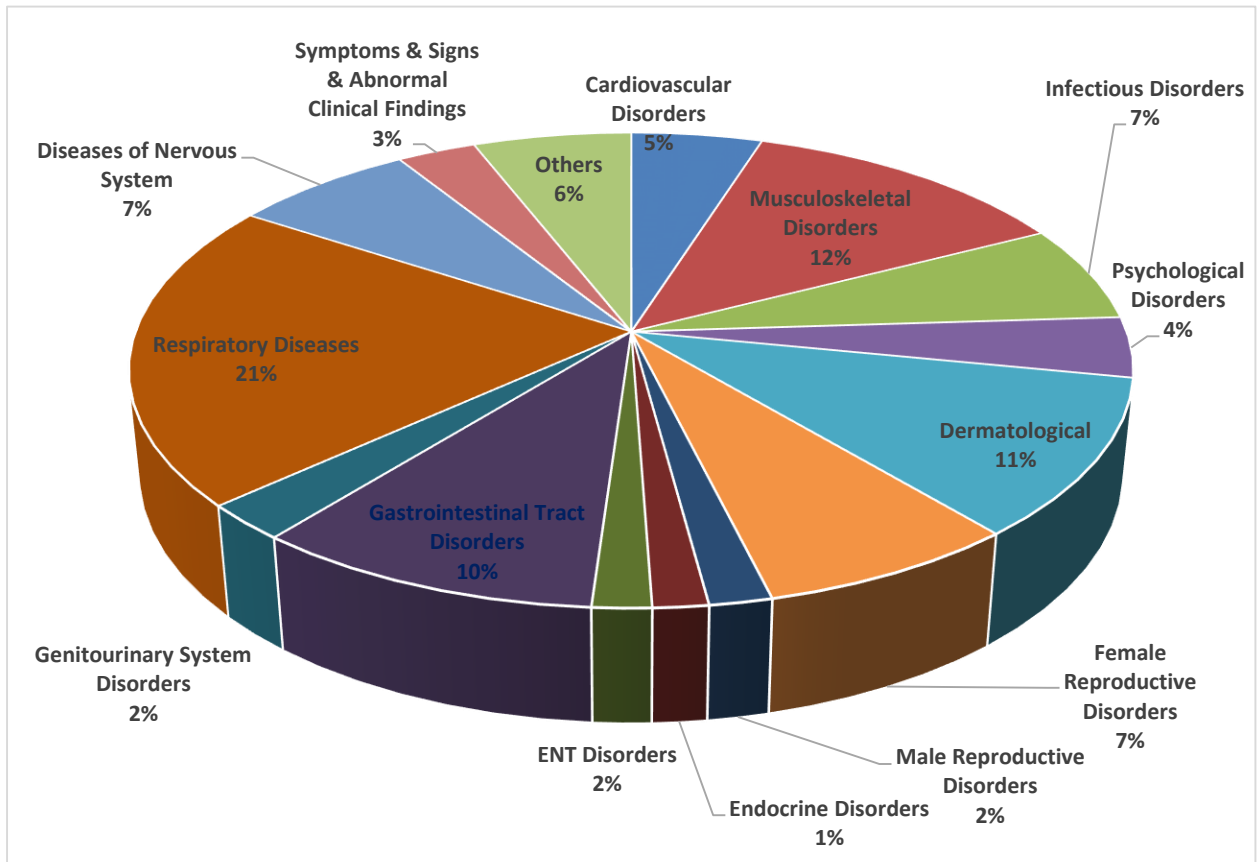
Pearson Chi-Square test = 0.001



**Figure 4.9: Diagnostic tools used to examine patients**

Table 4.7 and Figure 4.9 reflect the diagnostic tools used in examining patients during the study period July 2008 to July 2017. The Pearson Chi-Square indicates that the type of diagnostic tools used were significantly different ( $P < 0.001$ ). It can be gleaned that full physical examination (cursory examination) was mainly utilised during the study period, as (86.6%) of the patients were examined using this diagnostic examination. It can also be seen that a combination of full physical examination (cursory examination) and urine dipstick (13.4%) were sometimes used to examine patients. It was noted that the urine dipstick tool was never used alone, without the full physical examination in the examination of patients.

#### 4.5 Classification of main complaint



**Figure 4.10: Diagnostic distribution of diseases**

The diagnosed diseases presented by the consulting patients from July 2008 to July 2017 were classified according to the ICD 10 code book. As shown in Figure 4.10, a number of clinical complaints were seen and diagnosed at the UNHCHC during the study period July 2008 to July 2017. It was observed that respiratory diseases (21%) was the most common ailment diagnosed at the UNHCHC during the study period. It was noticed that endocrine disorders (1%) was the least common ailment diagnosed.

**Table 4.8: Showing the most prevalent diagnoses per most prevalent disorders**

<b>System</b>	<b>Percentage</b>	<b>Specific diagnosis per system</b>
Respiratory diseases	21%	Upper respiratory tract infection 13.9%, lower respiratory tract infection 6.5%, pleurisy 0.05%
Musculoskeletal Disorders	12%	Foot pain 0.4%, Arthritis 6.8%, Myalgia 2.8%, Lumbago 2.0%, others 0.3%
Dermatological <u>disorders</u>	11%	Dermatitis 6.4%, Acne 0.6%, Fungal skin infections 1.5%, Bacterial skin infection 1.4%, others 0.7%
Gastrointestinal tract Disorders	10%	Abdominal complaints 3.8%, Diarrhea 1.7%, Constipation 1.6%, others 1.7%
Infectious Disorders	7%	Viral infections 3.3%, Bacterial infections 1.4%, STDs 0.7%, others 1.0%
Female reproductive Disorders	7%	Vaginal disorders 2.3%, Menstrual disorders 2.4%, Pelvic inflammatory disease 1.1%, others 1.6%, Breast disorders 0.5%
<u>Diseases of nervous system</u>	7%	Headaches 5.9%, Neurological disorders 0.8%
Cardiovascular disorders	5%	Hypertension 4%, others 1.0%
Psychological Disorders	4%	PTSD 0.6%, Acute stress reaction 0.7%, Panic disorder 1.3%, Depression 0.8%, others 0.4%
<u>General symptoms &amp; signs &amp; abnormal clinical findings</u>	3%	Fatigue 1.3%, Nausea and vomiting 0.4%, others 1.2%
Genitourinary system disorders	2%	Bladder infection 1.7%,
Male reproductive disorders	2%	Erectile dysfunction 0.9%, Penile eruption 0.3%, others 0.5%
ENT disorders	2%	Ear disorders 1.2%, Nose disorder 0.3%
Endocrine disorders	1%	Diabetes Mellitus 1.3%, others 0.2%

Table 4.8 highlights the most prevalent diseases and/or pathology diagnosed at UNHCHC during the study period July 2008 to July 2017. Upper respiratory tract infection (13.9%) was the most prevalent respiratory disease diagnosed, the least prevalent respiratory disease was pleurisy (0.05%). While arthritis (6.8%) constituted the most prevalent musculoskeletal disorder diagnosed. In terms of dermatological disorders, dermatitis (6.4%) was the most common dermatological disorders seen at UNHCHC.

With regards to gastrointestinal disorders, abdominal complaints (3.8%) was the most prevalent condition, while viral infections (3.3%) constituted the prevalent infectious diseases diagnosed during the study period July 2008 to July 2017.

Furthermore, and in respect to female reproductive disorders, menstrual disorders (2.4%) and vaginal disorders (2.3%) were the most prevalent, while headaches (5.9%) was the most prevalent disease of the nervous system diagnosed at the UNHCHC. The neurological disorders accounted for (0.8%) of the diseases of the nervous system.

Regarding the cardiovascular disorders seen, hypertension (4%) presented as the most common cardiovascular disorder diagnosed. Regarding the psychological disorders, panic disorder (1.3%) was noted as the most prevalent. For those who presented general symptoms and signs and abnormal clinical findings, fatigue (1.3%) was the most prevalent. For genitourinary system disorders, it emerged that bladder infections (1.7%) was the most prevalent condition while erectile dysfunction (0.9%) was most common among the male patients seen. In addition, ear disorders (1.2%) were more prevalent for ENT (ear, nose and throat) disorders and Diabetes mellitus (1.3%) was most prevalent for endocrine disorders diagnosed respectively.

## 4.6 Prescriptions

### 4.6.1 Homoeopathic remedies

A broad range of 4 822 different homoeopathic prescriptions (Homoeopathic remedies, tinctures, complexes, tissue salts and herbal creams) were dispensed at UNHCHC during the study period July 2008 to July 2017.

**Table 4.9: Showing the most prescribed homoeopathic remedies**

Homoeopathic remedy	Frequency	Percentage
<i>Natrum muriaticum</i>	396	8.2%
<i>Bryonia alba</i>	296	6.1%
<i>Arsenicum album</i>	234	4.9%
<i>Rhus toxicodendron</i>	191	4.0%
<i>Staphysagria delphinium</i>	177	3.5%
<i>Sepia officinalis</i>	167	3.5%
<i>Sulphur</i>	164	3.4%
<i>Pulsatilla nigricans</i>	130	2.7%
<i>Nux vomica</i>	116	2.4%
<i>Lycopodium clavatum</i>	108	2.2%
<i>Calcarea carbonicum</i>	101	2.1%

As seen in Table 4.9, the most frequently prescribed homoeopathic remedy was *Natrum muriaticum* (8.2%), followed by *Bryonia alba* (6.1%), *Arsenicum album* (4.9%) etc. and *calcarea carbonicum* (2.1%) was the least frequently used remedy.

**Table 4.10: Prescription count per remedy kingdom**

Kingdom	Frequency	Percentage
Plant Kingdom	2139	44.4%
Mineral Kingdom	1931	40.0%
Animal Kingdom	437	9.1%
<u>Nosode/Miasmatic Kingdom</u>	296	6.1
<u>Saccharum lactis</u>	19	0.4%
Total	4822	

As shown in Table 4.10, the plant kingdom accounted for 44.4% of the total number of homoeopathic prescriptions, followed by the mineral kingdom (40.4%) during the study period July 2008 to July 2017. Despite this, Table 4.11 shows that *Natrum*

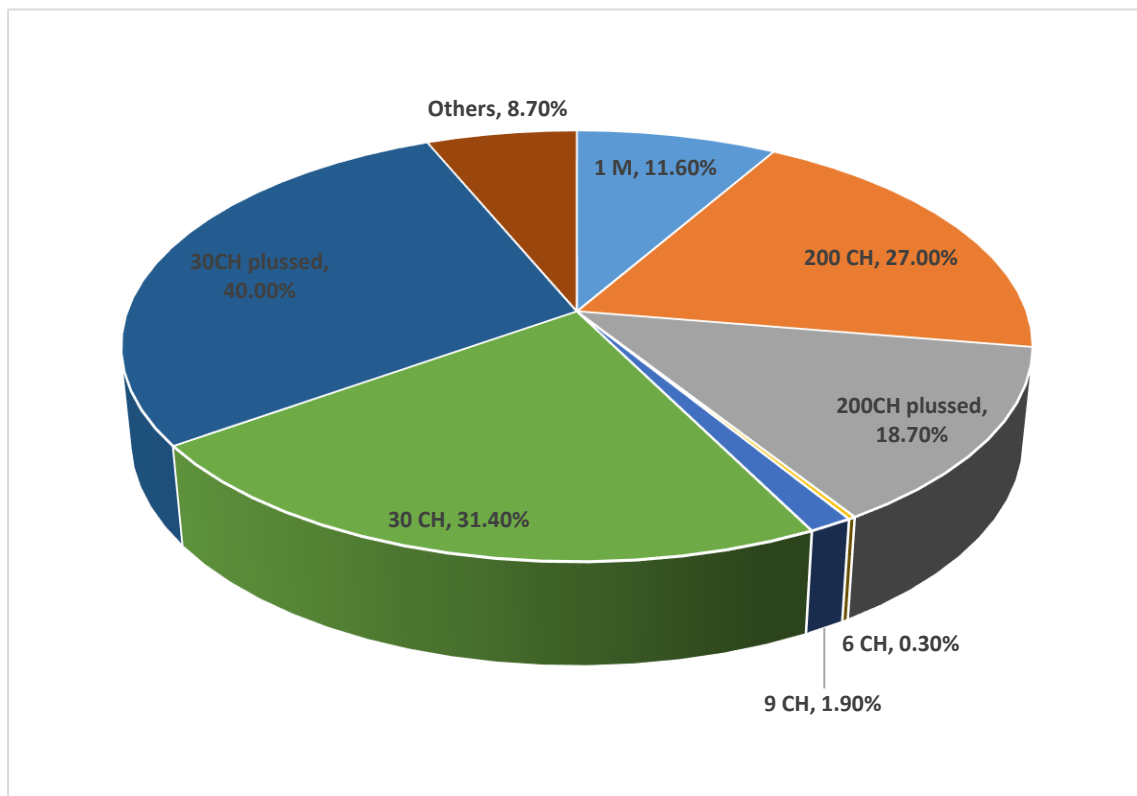


*muriaticum* belonging to the mineral kingdom was the most frequently prescribed remedy, of all remedies, followed by *Bryonia alba*, which was the most frequently prescribed remedy of the plant kingdom.

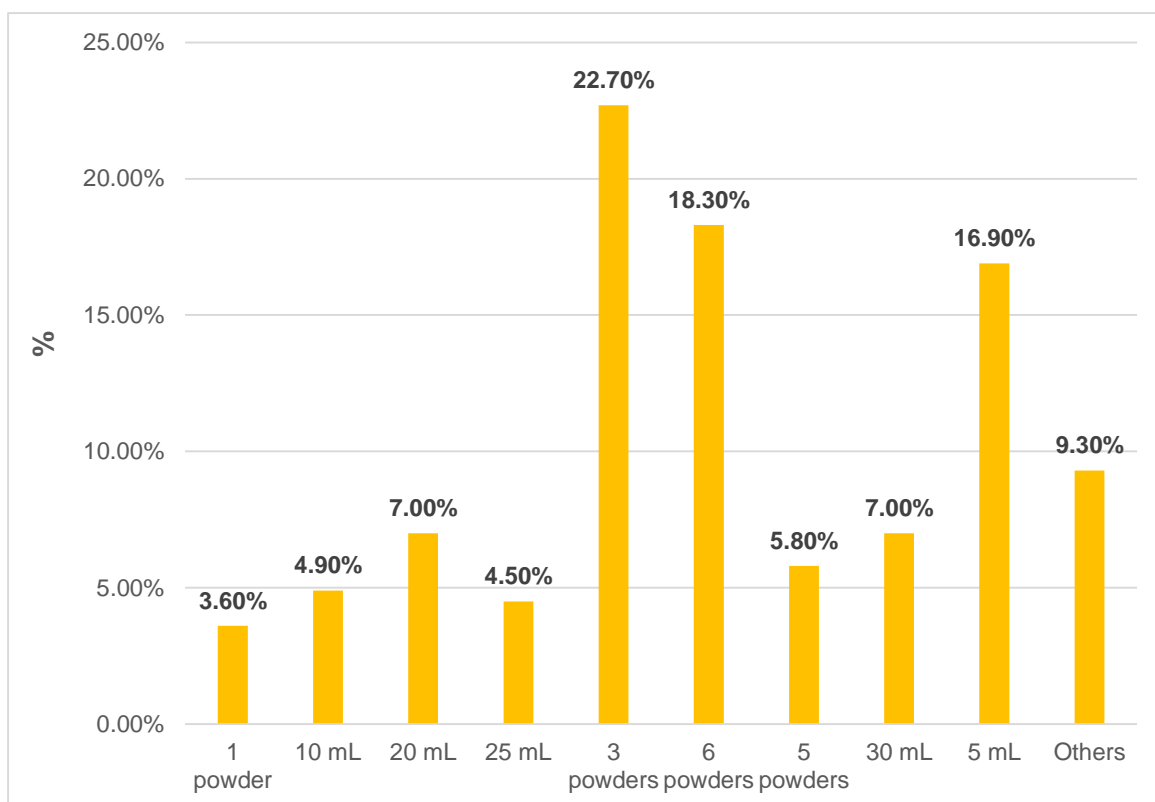
**Table 4.11: Prescription count of the most frequently prescribed remedies per remedy kingdom**

Kingdom	Remedy	Count
Plants	<i>Bryonia alba</i>	296
	<i>Rhus toxicodendron</i>	191
	<i>Staphysagria delphinium</i>	177
	<i>Pulsatilla nigricans</i>	130
	<i>Nux vomica</i>	116
Minerals	<i>Natrum muriaticum</i>	396
	<i>Arsenicum album</i>	234
	<i>Sulphur</i>	164
	<i>Calcarea carbonicum</i>	101
	<i>Silicea</i>	95
Animals	<i>Sepia officinalis</i>	167
	<i>Cantharis</i>	74
	<i>Lachesis muta</i>	70
	<i>Apis mellifica</i>	38
	<i>Spongia tosta</i>	30
<u>Nosode/Miasmatic</u>	<i>Thuja officinalis</i>	92
	<i>Tuberculinum</i>	57
	<i>Medorrhinum</i>	52
	<i>Psorinum</i>	42
	<i>Carcinosin</i>	32
	<i>Bacillinum</i>	11
	<i>Folliculinum</i>	6
	<i>Staphylococcinum</i>	2
	<i>Pyrogen</i>	1
	<i>Ambra grisea</i>	1

**Figure 4.11: Homoeopathic remedy potency distribution**

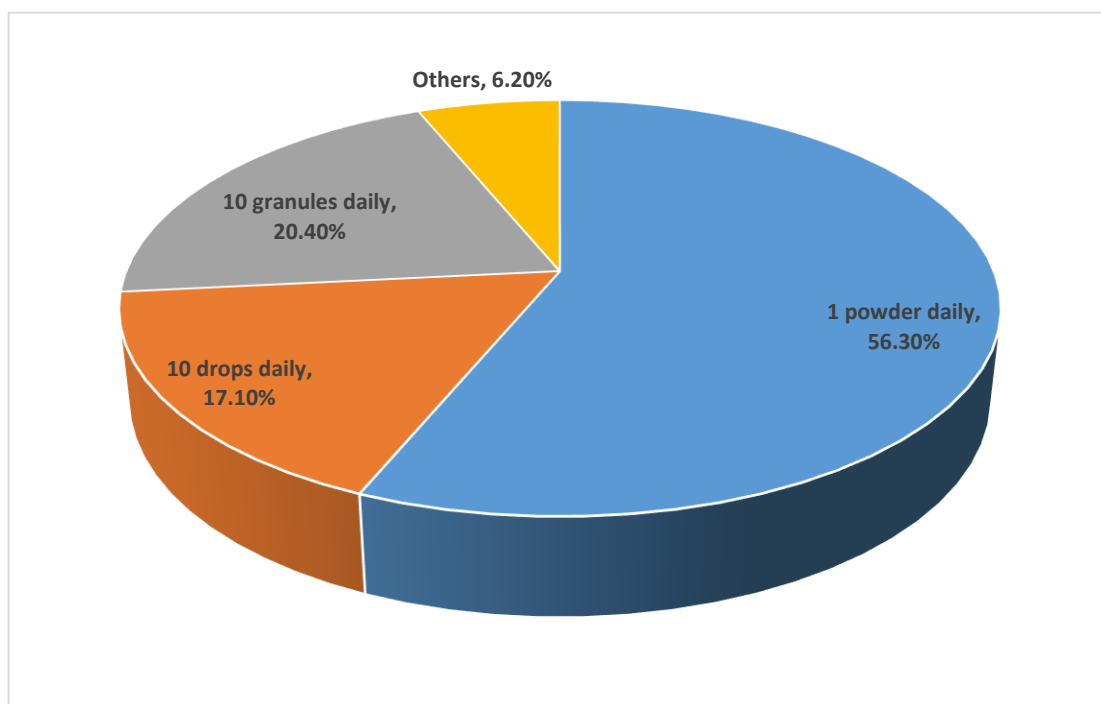


The potency of the prescribed homoeopathic remedies is shown in Figure 4.11. It can be gleaned that 30CH plussed (40%) was the most frequent potency prescribed, followed by 30CH (31.40%) and 200CH (27.0%), with 6CH being the least prescribed potency during the study period July 2008 to July 2017.



**Figure 4.12: Homoeopathic remedies quantity distribution**

Figure 4.12 indicates the quantity of the homoeopathic remedy prescriptions. It was observed that mostly three powders (22.7%) were given and the least prescribed quantity was one powder (3.6%), during the study period July 2008-July 2017.



**Figure 4.13: Homoeopathic remedies frequency distribution**

Figure 4.13 suggests that the frequency of dosage of homoeopathic remedies prescribed at UNHCHC during the study period July 2008 to July 2017, was mostly in one powder daily (56.3%), followed by 10 granules daily (20.40%). 10 drops daily accounted for (17.10%) and other variations from the normal of frequency of dosing accounted for (0.6%).

Apart from the prescription of homoeopathic remedies, other natural adjunctive medications were used that is, phytotherapeutic medicines (herbal tinctures, complexes and herbal creams) adjunctive medicines, and tissue salts were also prescribed at UNHCHC during the study period July 2008 to July 2017. The prescription of these adjunctive medicines will be analysed in detail in the subsequent sections.

#### 4.6.2 Phytotherapeutic and adjunctive medicines

This section presents the quantity and frequency of phytotherapeutic medication (herbal tinctures, complexes and herbal creams), other adjunctive medications, namely adjunctive medicines, and tissue salts that were prescribed at UNHCHC during the study period July 2008 to July 2017. The adjunctive medications were given in addition to the primary homoeopathic remedies.

**Table 4.12: Phytotherapeutic (herbal tinctures and herbal complexes) medicines prescribed**

Herbal tinctures	Frequency	Percentage	Herbal Complexes	Frequency	Percentage
<i>Crataegus oxyacantha</i>	115	13.50%	Immune complex	405	40.70%
<i>Valeriana officinalis</i>	82	9.60%	Urinary tract complex	261	26.20%
<i>Syzigium cumini</i>	61	7.20%	Cough complex	146	14.70%
<i>Dioscorea villosa</i>	41	4.80%	Abdominal complex & Dysmenorrhoea complex	125	12.5%
<i>Scutellaria lateriflora</i>	40	4.70%	Others	58	5.80%
<i>Passiflora incarnata</i>	35	4.10%	Total	995	
<i>Thymus vulgaris</i>	34	4.00%			
<i>Avena sativa</i>	31	3.60%			
<i>Rauwolfia serpentine</i>	31	3.60%			
Others	381	44.80%			
Total	851				

Table 4.12 summarises the phytotherapeutic medicines (herbal tinctures, complexes and herbal creams) prescribed during the study period July 2008 to July 2017. In total, it was gathered that herbal tinctures were prescribed 851 times while herbal complexes were prescribed 995. Of the herbal tinctures prescribed during the study period July 2008 to July 2017, *Crataegus oxyacantha* (13.5%) constituted the most frequently prescribed, followed by *Valeriana officinalis* (9.60%). *Avena sativa* and *Rauwolfia serpentine* (3.60%) accounted for the least prescribed herbal tinctures. There were other herbal tinctures (44.80%) and herbal complexes (5.80%) used and

prescribed at UNHCHC during the study period July 2008 to July 2017, however there were too many herbal tinctures to list on the table.

As can be seen from Table 4.12, Immune Complex (40.7%) dominated the proportion of the herbal complexes prescribed during the study period. Table 4.13 shows the ingredients of the herbal complexes.

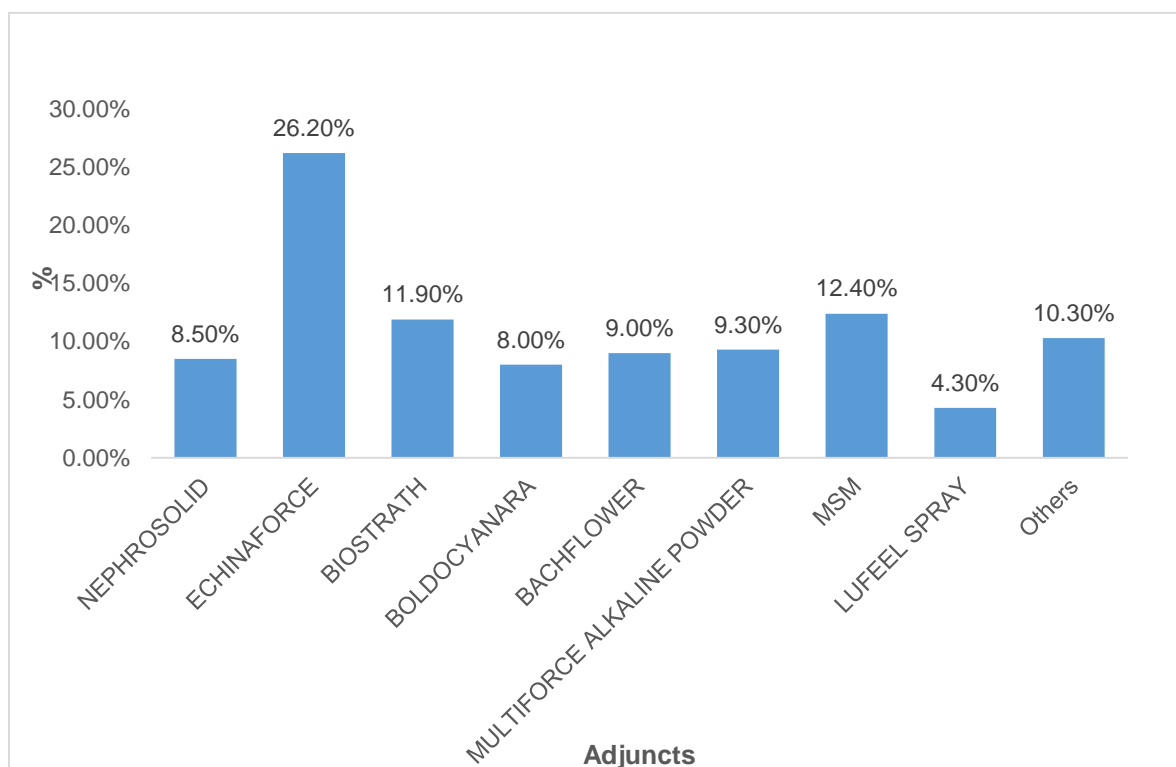
**Table 4.13: Phytotherapeutic complex ingredients**

Phytotherapeutic complex	Ingredients
Immune complex	<i>Echinacea purpurea</i> ; <i>Phytolacca americana</i> ; <i>Baptisia tinctoria</i> ; <i>Myrrh</i> ; <i>Pulsatilla nigricans</i>
Urinary tract complex	<i>Agathosma betulina</i> ; <i>Petroselinum crispum</i> ; <i>Equisetum hyemale</i> ; <i>Arctostaphylos uva-ursi</i> ; <i>Sarsaparilla</i>
Cough complex	<i>Verbascum thapsus</i> ; <i>Rumex crispus</i> ; <i>Drosera rotundifolia</i>
Abdominal pain & dysmenorrhoea complex	<i>Matricaria chamomilla</i> ; <i>Mentha piperita</i> ; <i>Dioscorea villosa</i> ; <i>Viburnum opulus</i> ; <i>Zingiber officinale</i>

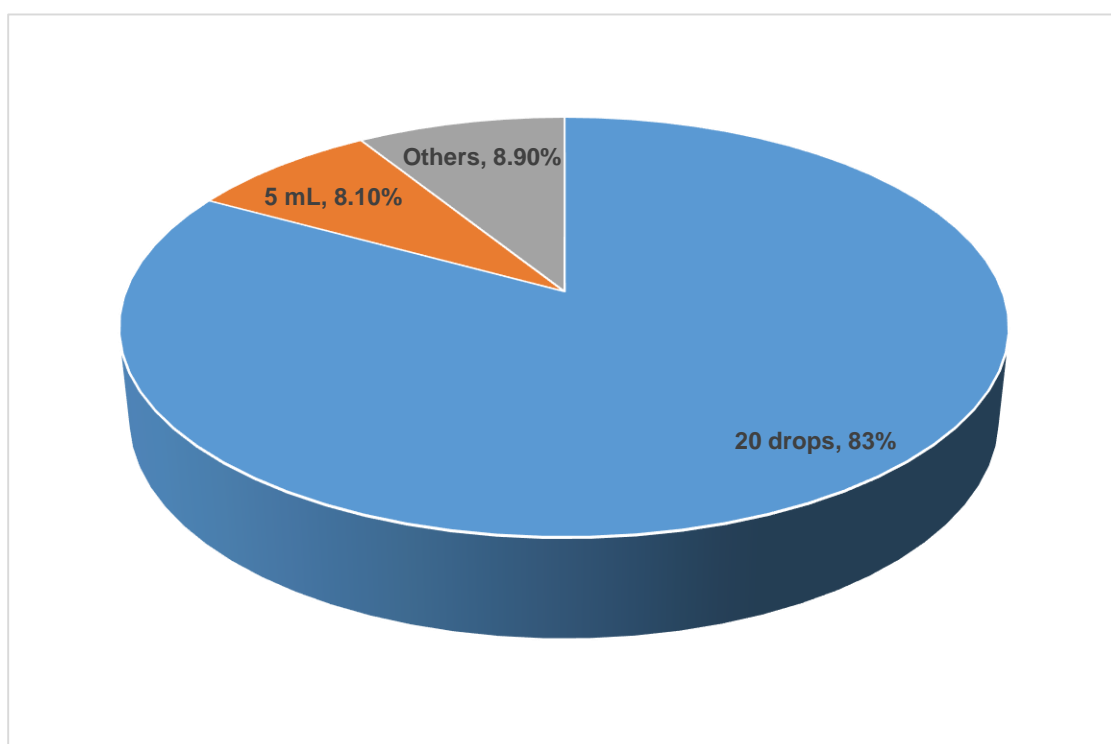
**Table 4.14: Prescribed adjunctive medicines**

Adjuncts	Frequency	Percentage
Echinaforce	423	26.20%
ThreshHold Real MSM	200	12.40%
Biostrath	192	11.90%
Multiforce alkaline powder	150	9.30%
Bachflower remedies	146	9.00%
Nephrosolid	138	8.50%
Boldocynara	130	8.00%
Luffeel nasal spray	70	4.30%
Others	167	10.30%
Total	1616	

Apart from phytotherapeutic medications, adjunctive medication, that is, adjunctive medicines and tissue salts were also prescribed during the study period July 2008 to July 2017. As shown in Table 4.14 and Figure 4.14 Echinaforce (26.20%) was the most frequently prescribed adjunctive medication at UNHCHC from July 2008 to July 2017. The least used adjunctive medicine was Luffeel nasal spray (4.30%).

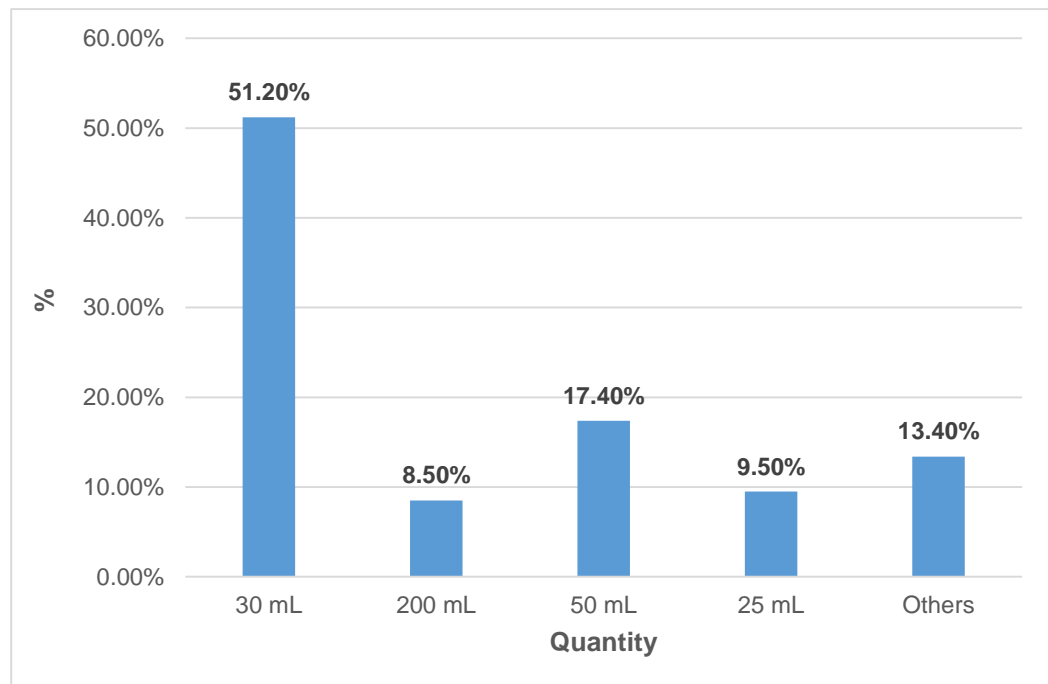


**Figure 4.14: Adjunctive medicine prescribed**



**Figure 4.15: Phytotherapeutic (herbal tinctures and herbal complexes) and adjunctive medicines dosage distribution**

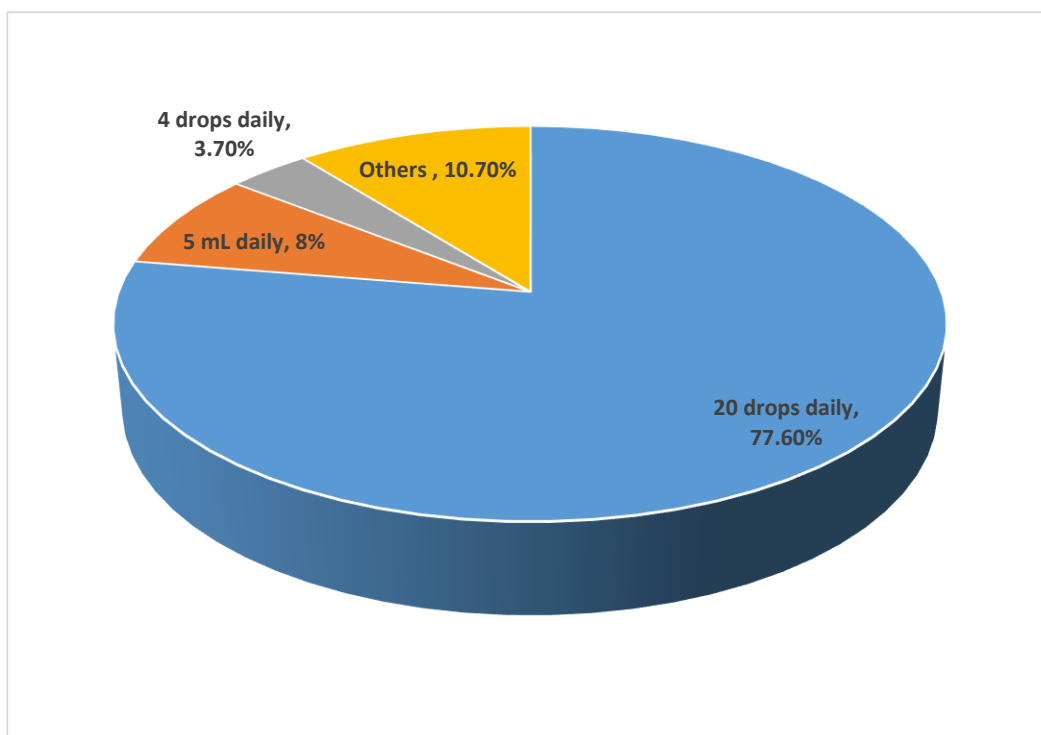
In figure 4.15 in terms of the dosage of the phytotherapeutics (herbal tinctures and herbal complexes) and adjunct medicines prescribed, it emerged that 20 drops (83%) was mostly prescribed dosage during the study period July 2008 to July 2017. With 5ml (8.10%) being the least prescribed dosage.



**Figure 4.16: Phytotherapeutics (herbal tinctures and herbal complexes) and adjunctive medicines quantity distribution**

Figure 4.16 indicates that 30 mL (51.20%) was the most frequent quantity of phytotherapeutics (herbal tinctures and herbal complexes) and adjunctive medicines prescribed at UNHCHC during the study period July 2008 and July 2017. The quantity 200ml (8.50%) was the least prescribed.





**Figure 4.17: Phytotherapeutics (herbal tinctures and herbal complexes) and adjunct medicines frequency of distribution**

With regards to the frequency of the phytotherapeutic and adjunctive medicine dosages, Figure 4.17 indicates that most of these medicines were prescribed in 20 drops daily (77.6%). It was depicted that 5ml (8%) was the least prescribed dosage.

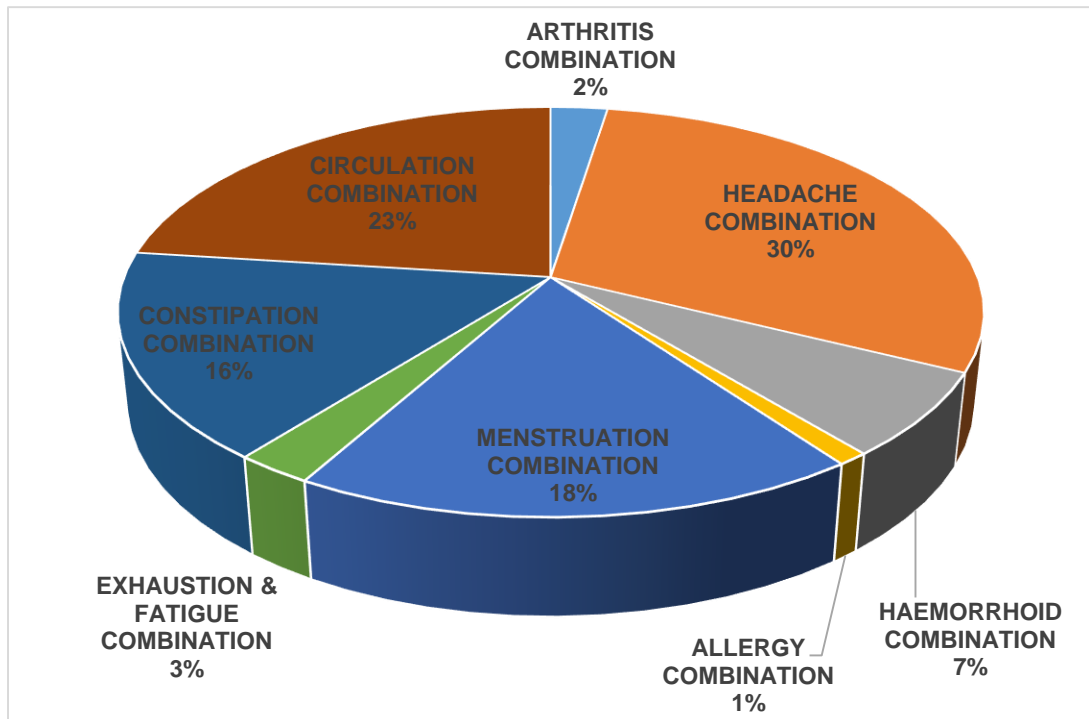
### 4.6.3 Tissue salts

This section presents a report of the quantity and frequency of the tissue salts prescribed at UNHCHC during the study period. A total of 409 tissue salts were prescribed at UNHCHC from July 2008 to July 2017.

**Table 4.15: Tissue salts prescribed**

<b>Tissue salts</b>	<b>Frequency</b>	<b>%</b>
Nat mur	44	11.00%
Nat sulph	10	2.50%
Nat phos	59	14.70%
Silica	57	14.20%
Kali mur	34	8.50%
Kali phos	15	3.70%
Mag phos	68	17.00%
Ferrum met	1	0.20%
Ferrum phos	25	6.20%
Calc phos	20	5.00%
Calc sulph	32	8.00%
Calc fluor	36	9.00%
Total	401	

As shown in Table 4.15, Mag phos (17%) constitutes the most frequently prescribed tissue salts, followed by Nat phos (14.7%). Ferrum met (1%) was the least frequently prescribed tissue salt.



**Figure 4.18: Tissue salts combinations prescribed**

The pie chart in Figure 4.18 shows the tissue salt combinations prescribed at UNHCHC during the study period July 2008 to July 2017. Headache combination (30%) followed by circulation combination (23%) were the most frequently prescribed tissue salt combinations. Allergy combination (1%) was the least frequently prescribed tissue salt combination.

**Table 4.16: Tissue salt combination ingredients**

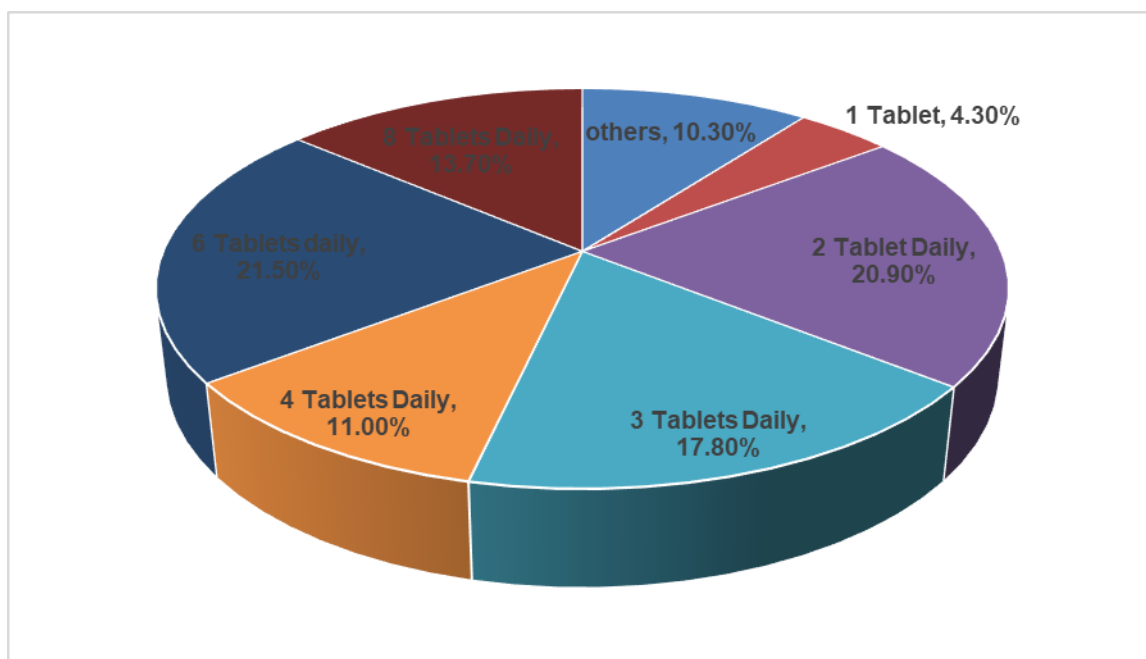
<b>Tissue salt combination</b>	<b>Ingredients</b>
Headache combination	6x: Ferrum phos; kali phos; Mag phos ; Nat mur , silica
Circulation combination	6x: Calc fluor ; Calc phos ; Ferrum phos ; Kali mur ; Kali phos
Menstruation combination	6x: Calc phos ; Ferrum phos ; kali phos ; kali sulph ; Mag phos
Constipation combination	6x : Kali mur; Nat mur; silica
Haemorrhoid combination	6x: Calc fluor; Ferrum phos; Kali mur ; Kali phos
Exhaustion & fatigue combination	6x: Calc fluor; Calc phos; Calc sulph; Ferrum phos; Kali mur; Kali phos; Kali sulph; Mag phos; Nat mur; Nat phos; Nat sulph; Silica
Allergy combination	Mag phos, Nat mur; Silica

Table 4.16 shows the tissue salt combination ingredients

**Table 4.17: Quantity of tissue salts prescribed**

<b>Quantity</b>	<b>Frequency</b>	<b>Percentage</b>
100 Tablets	163	11.60%
10mL	1	0.07%
120 Tablets	5	0.36
125 Tablets	59	4.20%
150 Tablets	873	62.30%
200 Tablets	9	0.60%
200 mL	2	0.10%
300 Tablets	14	1.00%
30 Tablets	11	0.80%
30 mL	3	0.20%
50 Tablets	13	0.90%
5 mL	1	0.07%
60 Tablets	244	17.40%
75 Tablets	1	0.07%
90 Tablets	3	0.20%
Total	1402	

Table 4.17 reflects the quantity of tissue salts prescribed during the study period. It can be observed that 150 tablets (62.30%) was the most frequently prescribed quantity of tissue salts during the study period July 2008 to July 2017. The least frequently prescribed quantity of tissue salts were 10ml, 5ml, and 75 tablets, all of which were (0.07%).

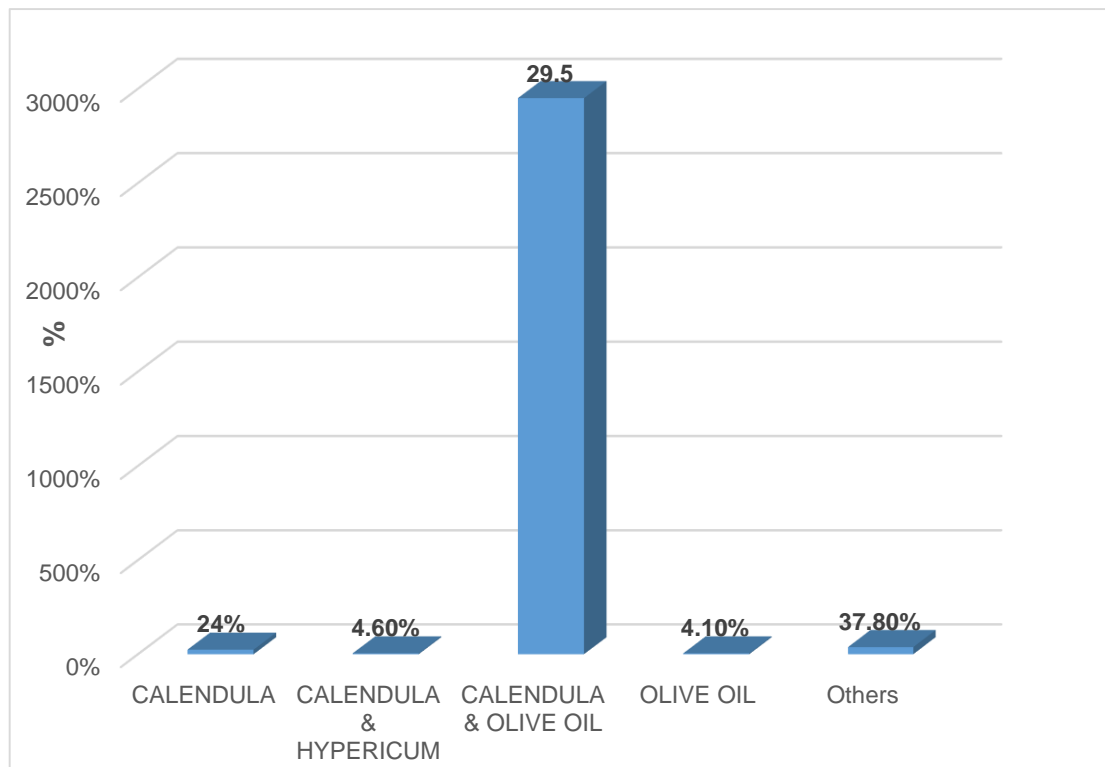


**Figure 4.19: Frequency of tissue salts dosage prescribed**

Figure 4.19 shows the frequency of tissue salts dosage prescribed during the study period July 2008 to July 2017. 6 tablets daily (21.5%) and 2 tablets daily (20.90%) were the most frequently prescribed tissue salt combinations dosage. With 4 tablets daily (11.00%) the least prescribed tissue salt combination dosage.

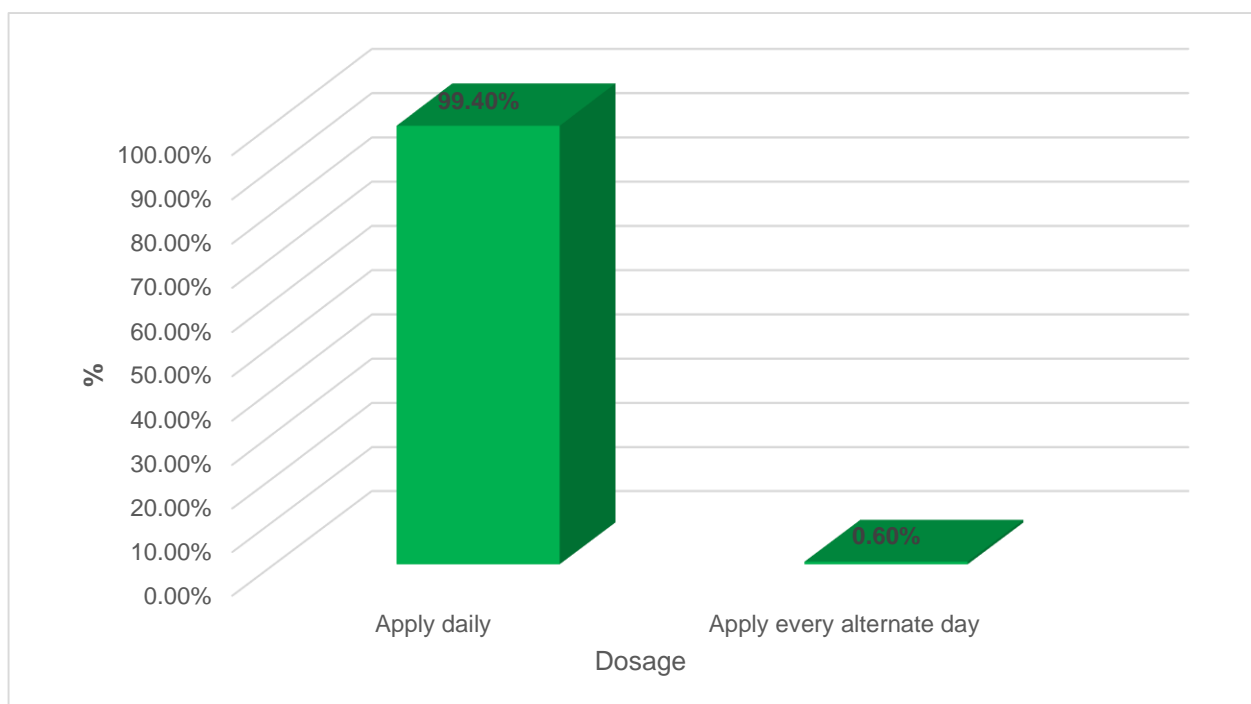
#### **4.6.4 Herbal creams**

This section illustrates the report of the quantity and frequency of the herbal creams prescribed at UNHCHC during the study period. Herbal creams were prescribed 628 times during the study period July 2008 to July 2017.



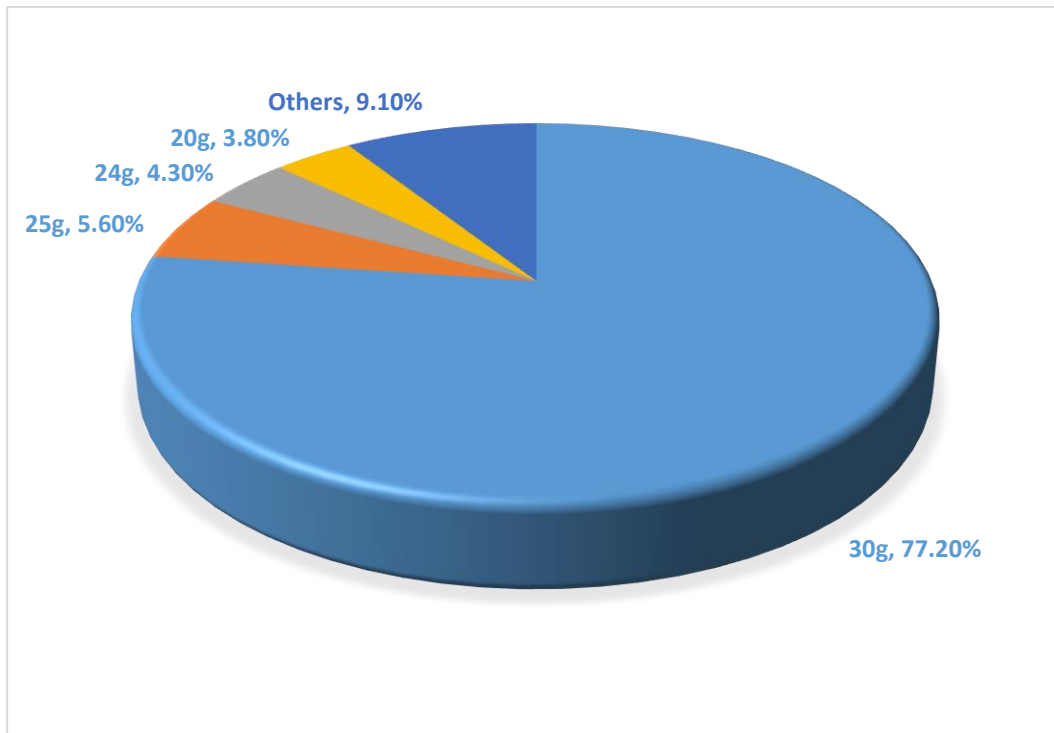
**Figure 4.20: Herbal cream combination prescribed**

As seen in Figure 4.20, *Calendula* & Olive oil combination (29.5%) and *Calendula* alone (24%) were the highest prescribed herbal creams. With *Calendula* & *Hypericum* The least prescribed herbal cream.



**Figure 4.21: Herbal cream combination dosage prescribed**

As shown in Figure 4.21, nearly all (99.4%) of the herbal creams prescribed were to be applied daily. Only (0.60%) of herbal creams had to be applied every alternate day.



**Figure 4.22: Herbal cream combination quantity prescribed**

The pie chart in Figure 4.22 shows that the (77.2%) of the herbal creams prescribed were in 30g quantities. Only (3,80%) of the herbal creams were prescribed in 20g quantities.

## 4.7 Improvements at UNHCHC

**Table 4.18: Improvements at UNHCHC**

<b>Recommendations by Smillie (2010)</b>	<b>Improvements observed by researcher</b>
Provision of additional diagnostic equipment (glucometer and pregnancy testing kits).	Provision for glucometers, pregnancy testing kits and peak flow meters at UNHCHC were made.
Provision of language translators.	<p>In 2009 the language isiZulu was introduced as a module into the curriculum. This module does not form part of the official curriculum but students have access to the module through the clinic director Dr Ngobese-Ngubane. The module is termed as isiZulu for Healthcare practitioners. The module facilitates students to have the basic knowledge of isiZulu which enables the student interns to better interact with patients.</p> <p>Furthermore, the researcher fully acknowledges Smillie's (2010) recommendations, however Smillie (2010) did not anticipate the increase in the number of students in the Department of Homoeopathy whose home language is isiZulu. These students are fluent in both English and isiZulu.</p> <p>Translation forms part of the duties of the clinician's assistant.</p>
Provision of a clinician's assistant to assist with administrative requirements at UNHCHC.	Two additional clinician's assistants have been employed at UNHCHC and work on different operational days at UNHCHC.
Provision of computerised filing and labelling system.	Filing and logging of patient files forms part of the administrative duties of the clinician's assistant. The provision of a computerized filing and labelling system has not been made.
UNHCHC to commence operating days as early as January	UNHCHC commenced operation on the 5 <sup>th</sup> March 2018 (Ngobese-Ngubane 2018). UNHCHC commences operation after students are fully registered. Certain conditions such as student/staff strikes and financial constraints of the university impact on the commencement of UNHCHC. UNHCHC is operated by 4 <sup>th</sup> and 5 <sup>th</sup> year intern students under the supervision of a qualified clinician.
Provision of a ground floor consulting facility as UNHCHC is located on the 3 <sup>rd</sup> floor of the building	Provision of a ground floor consulting room has been attained. A shared consultation space between Lifeline and UNHCHC serves as a consulting space. The office which is part of the Lifeline building, is located on the ground floor of the building. The office space consists of an examination bed, table and chairs suitable for a homoeopathic consultation. Ethical considerations such as privacy and respect for the patient is also maintained within the office space.
Provision of a computerised repertorisation software to streamline the process of finalizing	Provision of a computerised repertorisation software has not been attained. This can be



the respective prescriptions and negate the need for manual repertorisation.	<p>accounted for by the fact that the Department of Homoeopathy has not included repertorisation software as part of clinical practice. Student interns are educated in detail on manually repertorising patient cases.</p> <p>The head clinician has access to repertorisation software, due to the nature of consultations, cases and the time factor. Students are instructed to carry the materia medica and Synthesis Repertory. Both the mentioned books aid in repertorisation of patient cases.</p>
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Table 4.18 depicts the improvements that have been made at UNHCHC according to the recommendations that Smillie (2010) has suggested. The fourth objective of the study was to assess the improvements made at UNHCHC during the 10-year period July 2008 to July 2017.

## 4.8 Conclusion

An in-depth audit report of the clinical activities of UNHCHC was carried out for the period July 2008 to July 2017. It emerged that from a gender point of view, females were the majority of the patients seen during these periods. Although the vast majority of patients were African, the few White, Coloured and Indian patients coming to the clinic particularly during the 2015 to 2017 period strongly suggests diversification of the patients seen in the UNHCHC. The highest number of the patients from the age group of 25 to 39 and were unemployed. Furthermore, the audit report revealed that 2016 had the highest number of new and follow-up patients while most of the patients were followed-up only once.

Importantly, it emerged from the report that only 3.8% of the patients at UNHCHC were actually referred to other medical facilities from the clinic, suggesting that most of the patients seen at the UNHCHC were treated at the clinic. It also emerged from the analysis that TB testing constitutes the major reason why consulting patients were referred.

Regarding the patients treated at UNHCHC, it emerged from the report that full physical examination (comprehensive physical examination) was the diagnostic tool mostly utilised and patients were mostly diagnosed with respiratory diseases particularly upper respiratory tract infections. Significantly, 4 822 different homoeopathic prescriptions were issued to patients. Other medications that included phytotherapeutic (herbal tinctures, complexes and herbal creams) and adjunctive medicines, and tissue salts, were prescribed in addition to primary homoeopathic treatment modalities that is remedies, to patients during the study period July 2008 to July 2017. It was noted that improvements that were made at UNHCHC according to the recommendations, that Smillie (2010) had suggested were achieved with an exception, to the computerized filling and labelling system, as well as the computerized repertorisation software.

# CHAPTER 5: DISCUSSION OF THE RESULTS

## 5.1 Introduction

This chapter consists of results from Chapter 4 and will be discussed according to the following lay out:

- Sample size
- Demographics
  - Gender
  - Age
  - Race
  - Employment history
- Consultations
  - -Clinic operating hours
  - -New patients
  - -follow -up patients
- Examinations
- Referrals
- Main complaints
- Prescribed medications
- Improvements at UNHCHC

These will be described according to statistical data obtained from Chapter 4.

The objectives of the study were to:

- **First objective:** To determine the patient demographic profile and the disease profile at UNHCHC from July 2008 to July 2017.
- **Second objective:** To describe various treatment protocols prescribed at UNHCHC from July 2008 to July 2017.

Objective one and two were analysed through the use of the data collection tool (Appendix D). The patient demographic, disease profile and various treatment modalities were described and depicted in Chapter 4 by means of pie charts, graphs and tables.

- **Third objective:** To compare and contrast the results of this study to a retrospective study done in June 2004 to June 2008 by Smillie (2010).

Objective three was achieved through the comparison of the results of this study to the results of the previous audit conducted during the period June 2004 to June 2008) by Smillie (2010).

- **Fourth objective:** To check if there were any improvements made at UNHCHC according to the recommendations made by Smillie (2010).

Objective four was attained by comparing the recommendations by Smillie (2010) to the improvements implemented at UNHCHC through the observations of the researcher and conferred by the senior clinician at UNHCHC.

## **5.2 Sample population**

The sample population which this clinical audit aimed to describe consisted of patients that attended UNHCHC over a 10-year period from July 2008 to July 2017. The sample comprised the entire population of patients seen at UNHCHC during this period, which was a total of 2 923 patient files. Both new and follow up patients during this period were included.

Previous to this study an audit that was conducted by Smillie (2010), included files from the inception of UNHCHC in 2004 and the study was conducted during the period of June 2004 to June 2008. The researcher assumes that the data obtained from this study by Smillie (2010) is valid and can be considered as a clinical representation of UNHCHC during that period (June 2004 to June 2008).

### **5.3 Demographics**

This section consists of the biographical characteristics and employment history of the patients that consulted UNHCHC from July 2008 to July 2017.

#### **5.3.1 Gender**

The results in Chapter 4, depicted in Figure 4.1 and Table 4.1 show that the majority of the patients who consulted the clinic were females (69.10%) with males constituting the minority (30.90%). Table 4.1 shows the gender distribution. It can be seen that in 2010 there was an increase in the number of female patients that consulted at the clinic. However, it is also observed that during the period from 2011 to 2013 there was a decrease in the number of female patients that consulted at the clinic. This finding can be attributed to the decrease in the number of consultations and follow ups in the clinic in the period 2011 to 2013. This decrease in the number of consultations and follow ups is depicted in Table 4.6 and Figure 4.8.

Figure 4.1 illustrates the gender distribution of the patients visiting UNHCHC; it can be seen that from 2014 to 2016 there was a change in the pattern of females attending the clinic, from a decrease in 2011 to 2013 to an increase in the number of female patients consulting at the clinic. The majority of consulting patients over the 10-year period were female (69.10%).

The results from this study concur with other similar studies. Smillie (2010) found that (60%) of the consulting patients at UNHCHC were females during the period June 2004 to June 2008. Love (2016), who conducted a study at KGHCC, found that the participant base from her study was predominantly females with more than 70% compared to males. Pramlall (2016) conducted a retrospective study in RHCC and found that the number of females that visited the clinic was greater than the number of male patients. Dube (2015) conducted a perception study at the UNHCHC and found that the majority of the respondents were female.

females make greater use of health facilities than males which may explain the high percentage of females compared to men consulting at UNHCHC MacLean *et al.* (2017) in their qualitative synthesis of patients, found that men viewed help-seeking as not masculine enough and that women found help-seeking easier because of greater contact with health services for themselves and their family (McVittie, Hepworth and Goodall 2017). Furthermore, it has been reported that men experience higher rates of mortality and morbidity than do women, which can partly be attributed to men's reluctance to seek medical help at appropriate times (McVittie, Hepworth and Goodall 2017). Women make greater use of health facilities than men this can be attributed to the high percentage of females consulting at UNHCHC. (South Africa, Department of Statistics South Africa 2017) reports that the gender breakdown of the population of KwaZulu-Natal is 19% female and 16% male, which further reinforce the findings of this study. The researcher concurs with the results of the study

### **5.3.2 Age**

The study shows that the three major age groups that consulted at the clinic were 25 to 39 years of age (39.6%), followed by 40 to 64 (28.1%) and 19 to 24 (13.7%). The lowest attending age groups were 0 to 18 (9.7%) followed by 65+ (8.9%) (Table 4.2). The findings differ with those of Smillie (2010), who found that the most prevalent age group was 40 to 64 (36%) years, with 25 to 39 (34%) being the second most prevalent age group. The findings are similar to Pramlall's (2016) study that the most prevalent age group was 21 to 30 years old.

The greatest proportion of patients aged between 25 to 39 were mostly seen in 2015 (5.8%) and 2016 (8.9%). The increase in the number within this age group can be explained by the professional training and skills development programme offered by Lifeline South Africa to the youth during that period. As mentioned in Chapter 2, Lifeline South Africa is a non-profit organisation that aims to empower the youth and offers free services (Watson 2015). The organisation's offices are situated within the same building as UNHCHC. Therefore, youth involved in their programmes have easy access to the clinic facilities. During the period of 2015-2016, 98 HIV counsellors were trained at Lifeline South Africa (Lifeline South Africa online 2016).

HIV counselling is one of the services provided by Lifeline South Africa. A number of 3 763 clients were walk ins for HIV and AIDS testing and counselling (Lifeline South Africa online 2016). The majority of clients going for HIV testing were in the age group 25-39 years of age. South Africa has the biggest HIV epidemic in the world with 7.1 million people living with HIV, with a disease prevalence among the general population of 18.9% (Yousufzai 2017).

Rajaratnam *et.al.* (2010) states that the population remains large until the age of 30 years then starts to decline rapidly above the age of 60 years. This supports the findings of this study, which depicted that patients within the age group of 65+ (8.9%) were the lowest group attending at UNHCHC.

Research further shows that disability related to age was prevalent among young women and young men between the ages of 18 and 34. Jetha *et.al* (2016) states that there is a relationship between the length of disability and tenure and age makes a unique contribution to explaining variance in length of disability. Age is the main risk factor for prevalent diseases of developed countries; diseases such as cancer, cardiovascular disorders and neurodegeneration can be attributed to age (Niccoli and Partridge 2012).

Important socio-economic changes in most developed countries have affected eating habits and the level of physical activity of citizens; a poor diet and insufficient physical activity are among the main risk factors for various diseases (Hempfen 2006). The rate of change of disease has increased over time and is too rapid to be explained by genetic changes. Therefore, scientists consider that changes to the environment and diet have contributed to this rapid change (Luo and Lu 2016).

The researcher concurs with the results of this study. As Warwick Junction is a commercial area that, is housed with street vendors that are of the age group 25-39 years of age.

### 5.3.3 Race

Table 4.3 shows the racial distribution of the patients at UNHCHC during the study period July 2008 to July 2017. It can be seen that the patients during this period were predominantly African (95.0%). In contrast White patients who constituted only 0.9%, was the smallest race group attending UNHCHC. These results concur with the previous audit conducted by Smillie (2010), who found that the African (85%) population accounted for the majority of patients. Smillie (2010) reported that there were no White patients at UNHCHC in the period June 2004 to June 2008.

Figure 4.3 illustrates that the number of African patients at UNHCHC increased in number from 2015 to 2016. The reason for the decline in number of patients seen in 2017 is that the clinical data from the study included only the first six months of 2017 up until July 2017.

(South Africa, Department of Treasury, 2018, 5) affirms that the South African total population comprises of four racial groups, namely African, White, Coloured and Indian. According to Table 4.3 the second most prevalent racial ethnicity was Coloured patients (2.1%) followed by Indian patients at (1.9%). Other studies that have similar results include Pramlall (2016) who found that that 692 patients attended RHCC during the study were African, constituting the largest ethnic group that attended the clinic.

The majority of the South African population is African which is in line with the outcome of the findings in this study. The population of KwaZulu-Natal is predominantly African. During the apartheid regime the government sought to force people out of the cities and those that refused to move were then deprived of basic services like water and electricity – hence the area was named a “Black spot” (Kaufman 2016). The African population constitutes approximately 80% of the total population. Africans make up 87.2% of the total KwaZulu-Natal population. This percentage was estimated in 2016 (South Africa, Department of Treasury, 2018, 9).

The researcher concurs with the results of this study. Warwick junction was once a White dominated area, with a change in the constitution and the end of Apartheid, the area attracted an increased number of street vendors that are dominantly African.



Warwick Junction consists of the biggest transport hub in Durban as mentioned in chapter 2, transportation within this area predominantly transports people to African locations and townships, this accounting to the increase in African people surrounding the area and consulting at UNHCHC.

#### **5.3.4 Employment**

As shown in Chapter 4 Table 4.4 and Figure 4.4, the majority of patients that consulted at UNHCHC during the study period 2008-2017 were unemployed (63.9%) while (36.1%) were employed. These results concur with those of Smillie (2010) who reports that 41% of the consulting patients were unemployed and those that were unemployed constituted 36%.

Within the apartheid era, Warwick Junction's traders were considered illegal and were ordered by law to forcefully move. These laws were termed the anti-street trader laws (Conley 2015). The remnants of apartheid have had a considerable impact on the community of Warwick Junction and the rate of unemployment. In the immediate post-apartheid era, growth in the informal sector outpaced growth in the formal sector and it is estimated that around one third of the economy's active adults worked in the informal sector by the late 1990s (Conley 2015). The urban experience of Africans, who were referred to as non-Europeans during the apartheid era, is reported to be largely absent in the publications on the Durban's history (Rosenberg 2012).

(South Africa, Department of Treasury, 2018,63,64) mentions that 22.5% individuals are unemployed in KwaZulu-Natal. Unemployment is one of the social problems that contribute to poverty. The official unemployment rate accelerated moderately by 2.0% in 2016. Unemployment nationally has remained relatively stable over the last 4 years with 24.3% of the population being employed (South Africa, Department of statistics of South Africa, 2017). This information provides an explanation on the increased unemployment rate of the patients seen at UNHCHC during the study.

## 5.4 Consultations

Files with missing information, as stated in Chapter 3, were excluded from the study. The sum total of 3 788 consultations is a true representation of all the files that had complete information in the period of July 2008 to July 2017. The increase in numbers over the years indicates that patients are satisfied with services delivered at UNHCHC.

UNHCHC currently operates for three and half hours on Monday and Wednesdays from 8h30 to 12h00 and three hours on Tuesday from 13h00 to 16h00 (Ngobese-Ngubane 2018). When the clinic started in 2004 it operated on Wednesdays and Fridays, but as the demand for the clinic's services increased, the clinic included an additional consultation day in 2007. The clinic then operated Monday, Wednesday and Friday from 13h00 to 16h00 (Smillie 2010). In 2013 the clinic days changed to Monday, Thursday and Friday from 13h00 to 16h00 with two to three student interns on a rotational basis (Watson 2015). In 2014 the clinic days were reduced to two days Monday from 08h00 to 16h00 and Thursday from 13h00 to 16h00 (Watson 2015). In 2016 the clinic started operating for five days a week – Monday, Wednesday and Friday from 08h30 to 12h00 and Tuesday and Thursday from 13h00 to 16h00 with five student interns on rotation (Ngobese-Ngubane 2018).

Figure 4.8 illustrates the consultation pattern of patients for the study period July 2008 to July 2017. It is evident that 2016 had the highest number of consultations followed by 2015. Figure 4.8 also suggests that the number of consultations (both new and follow up) at UNHCHC rapidly increased over the 10-year period. These results indicate that UNHCHC has been growing significantly every year since its inception in 2004.

Figure 4.8 further shows that there were more new patients than follow up patients during the 10-year period. These findings are supported by Smillie (2010) who found that on average there were more new patient visits than follow up visits every year at UNHCHC during the period June 2004 to June 2008. There were 497 new patients and 365 follow up patients during the study period. Another study in a similar setting conducted by Pramlall (2016) also found that on average there were more new patient visits than follow up visits every year at RHCC.

During the 10-year period July 2008- July 2017 there were a total of 3 788 patient visits at UNHCHC, with 2016 having the highest number of patient consultations followed by 2015. Figure 4.8 shows that there was a total of 614 patient visits at UNHCHC in 2015 and 294 in 2014, an increase of 320 patient consultations from 2014 to 2015.

The researcher is of the opinion that the possible rationale for the increase in patient numbers in 2015 to 2016 compared to any other years could have been due to the introduction of a range of adjunctive therapies sponsored by South African Natural Products and Comed Health. These adjunctive products were previously not available for use in this facility, and would have been expensive if purchased by patients from a pharmacy or health shop. These products were prescribed frequently during this period. The medication included a wide range of medicines which ameliorate various ailments which will be explained in the following section.

The adjunctive medication available now at UNHCHC includes:

- Echinaforce
- Multiforce alkaline powder
- Molkosan
- Boldocynara
- Indigestion formula
- Nephrosolid
- Neuroforce formula
- *Crataegus oxycanatha* tincture
- Gastronol
- Drosinula syrup
- MSM threshold

As stated previously, 2016 had the highest number of consultations with a sum total of 981 consultations. In 2016, the clinic operated for 5 days a week and 3 hours per day, with five student interns on a rotation basis (Ngobese-Ngubane 2018).

There was direct correlation between the number of days the clinic was open and the number of patients; the higher the number of consultation days the higher the number of patient consultations.

All clinicians in the clinic are qualified and registered homoeopathic practitioners (Smillie 2010). The number of clinicians serving the clinic also increased in number from three to five in 2016. The student interns consulted with patients under the strict supervision of the clinicians on duty. The students ensured that the quality of service offered to patients was satisfactory. Patients were not kept waiting for long periods, this facilitated the maximum number of consultations within the 3 hours of operation per day.

Factors that impact on the number of consultation days included DUT strikes, public holidays and closures of the university. During the period 2011 to 2014, there was a decrease in the number of consultations as depicted in Figure 4.5. The first factor that contributed to the decrease in the number of consultations were the DUT strikes as the suspension of all university activities included closure of UNHCHC. According to Watson (2015), in 2014 the clinic operation hours were reduced to two operational days. The researcher assumes that there is correlation between the decrease in consultation days and consultations number. The number of consultations in 2017 was low because only the first six months of the year was included in the study period.

Dube (2015) conducted a perception study at UNHCHC in 2014; the results concluded that the clinic had no sign outside stating days, hours of operation and a brief explanation of homoeopathy in IsiZulu and English so people were not aware of the clinic. The results also showed that 54% of the respondents of the perception study had not heard of homoeopathy.

Table 4.6 reflects the number of times patients were follow-ups during the study period, that is, patients that returned to the clinic after their initial consultation. The results show that the majority of the patients had one follow up after their initial consultation, followed by those with two follow-ups.

The fact that the majority of patients had only one follow-up consultation, followed by those with two follow-up consultations, suggests that the majority of patients were satisfied with the service and treatment provided at UNHCHC. Dube (2015) and Watson (2015) concur as the results of their perception studies showed that students were satisfied with the clinic staff at UNHCHC and agreed that they were helped quickly and politely.

## **5.5 Examinations**

Table 4.7 and Figure 4.9 depict the diagnostic tools utilised to examine patients during the study period July 2008- July 2017. The results show that a comprehensive physical examination (full physical test) (86.6%) was the main diagnostic tool utilised during the study period July 2008- July 2017. A comprehensive physical examination is an examination that is conducted on new patients or patients being admitted to the hospital.

This examination provides:

- Fundamental and personalised knowledge about the patient.
- Assists in identifying or ruling out physical causes related to patient concerns.
- Provides a baseline for future assessments.
- Creates a platform for education and counselling.
- Develops proficiency in the essential skills of physical examination.

The comprehensive physical examination includes screening of vital signs (blood pressure, pulse rate, respiratory rate, body temperature), skin (hair, nails), HEENT (head, eyes, ears, nose, throat), neck (cervical lymph nodes), anterior and posterior (thorax, lungs, cardiovascular system), breast, axillae, abdomen, extremities and lymph nodes. The above information was extracted from the text book which homoeopathic students utilise for diagnostics, namely, Bates Guide to Physical Examination 11<sup>th</sup> edition (Bickley *et al.* 2013).

Smillie (2010) had recommended the addition of diagnostic equipment (pregnancy testing kits and glucometers) at UNHCHC. The comprehensive physical examination done to assess patients at UNHCHC included this equipment in certain conditions that required for these diagnostic tools to be utilised. The addition of the diagnostic equipment served as an improvement from the first audit done by Smillie (2010).

Table 4.7 also shows that a combination of the comprehensive physical examination and urine dipstick (13.4%) was also used as a diagnostic tool for assessing patients at UNHCHC. The comprehensive physical examination was required for all new and follow-up patients. Bickley *et al.* (2013) states that a comprehensive physical examination forms a baseline for future assessments. Through the physical test, one is able to determine the next diagnostic tool to be utilised e.g. urine dipstick test. This is the reason why these two diagnostic tools were frequently used in combination.

The urine dipstick examination is a diagnostic tool utilised to determine pathological particles in a patient's urine. This test screens for the presence of blood, protein, nitrites, ketones, glucose, leukocytes, PH and specific gravity in the urine. The presence of these substances in the urine could indicate urinary tract disorders, kidney disorders, liver problems, diabetes and metabolic conditions (Smillie 2010).

As seen in Figure 4.10, genitourinary system disorders accounted for 2% of the disorders presenting at UNHCHC. Out of that proportion, bladder infections accounted for 1.7%, for which the urine dipstick test is used as a diagnostic tool. It can be assumed that the low percentage of use of the urine dipstick test could be accounted for by the low prevalence rate of genitourinary system disorders.

Smillie (2010) found that (28%) of patients over the study period June 2004-June 2008 were assessed using the urine dipstick examination, the results of this study June 2004- June 2008 are similar to the results of this study July 2008 –July 2017 as a small percentage of patients were assessed with the urine dipstick examination.

The researcher concurs with the results of the study July 2008-July 2017. The researcher was a student intern at UNHCHC and from experience noted that, it was mostly females who consulted with Genitourinary conditions that required the use of a urine dipstick examination. Out of the females who presented with different ailments at UNHCHC there was a small percentage that presented with Genitourinary conditions. The urine dipstick test was never utilised alone, as mentioned a comprehensive physical examination was done in all patients and forms a vital part of diagnosing. Student interns are required to perform a comprehensive physical examination on both new and follow-up patients, followed by a specific system examination. As mentioned previously a comprehensive physical examination forms basis for future assessments (Bickley *et.al* 2013)

## **5.6 Referrals**

The total percentage of patients that were referred to other medical facilities during the study period July 2008- July 2017 was 3.8%. These patients were referred for various medical conditions. As described in Chapter 2, homoeopathic practitioners are recognised as a primary contact professional. However, Homoeopathy s are taught to recognise conditions that require medical interventions, that are outside of the homoeopathic scope of practice, or require specialised equipment, and then refer such cases to the appropriate medical facilities.

Patients were referred to medical facilities within the public health sector. Table 4.5 depicts the percentage of patients referred. The percentage of patients referred was 3.8% while the percentage of non-referrals was 96.2%. The relatively small number of referrals could be due to the fact that certain diagnostics equipment such as pregnancy kits and glucometers have been made available at UNHCHC. Smillie (2010) had recommended that this diagnostic equipment be made available so as to reduce the number of referrals for such basic assessments.

Patients were referred to medical facilities for various diagnostic assessments, as can be seen from Figure 4.6. The results show that Tuberculosis (TB) testing (11.80%) formed the main reason for patient referral.

Tuberculosis results in an estimated number of 1.7 million deaths each year with the worldwide number of new cases each year amounting to 9 million, that number being higher than at any other time in history (Lawn and Zumla 2011). Negin, Abimbola and Marais (2015) state that tuberculosis is one of the leading causes of disease and death in the world, particularly in low and middle income countries which account for more than 95% of the global tuberculosis disease burden. Poverty has been linked to greater risk of infection. In turn, tuberculosis disease worsens poverty by reducing patients' physical strength and ability to work, ultimately leading to loss of income (Foster *et al.* 2015).

The second most common reason for referral was cardiac conditions (7.30%). These complaints require specialised diagnostic interventions such as ECGs. Eye and dental complaints were the third most common reason for referral (3.6%) and x-ray assessments (2.7%) were the least most common reason.

Patients were referred to medical facilities within the public health sector. Figure 4.7 illustrates the facilities where patients were referred to. It can be seen that (94.2%) of patients were referred to hospitals, while (5.80%) were referred to clinics. Patients were referred to public health clinics as these clinics offer interventions such as tooth extractions and specialised equipment for eye testing and sputum culture testing for TB

Referral letters at UNHCHC were written by student interns under strict supervision of the attending clinician at UNHCHC and were issued to respective patients.

The researcher concurs with the authors and the results of the study July 2008- July 2017.



## 5.7 Main complaints

The diagnosed diseases presented by the consulting patients from July 2008 to July 2017 were classified according to the ICD 10 code book. As shown in Figure 4.10, a number of clinical complaints were seen and diagnosed at the UNHCHC during the study period. The five most prevalent system disorders were respiratory system disorders (21%), musculoskeletal system disorders (12%), dermatological disorders (11%), gastrointestinal tract disorders (10%) with infectious disorders, female reproductive disorders and diseases of the nervous system at (7%). The least prevalent system disorders were, endocrine disorders (1%), male reproductive disorders (2%), ENT disorders (2%), genitourinary disorders (2%), symptoms & signs & abnormal clinical findings (3%) and psychological disorders (4%).

In contrast, Smillie (2010) concluded that the most prevalent disorders during her study period were infectious diseases (29%), cardiovascular diseases (21%), dermatological diseases (11%) and musculoskeletal diseases (9%). The contrast can be accounted for by the change in the time frame as certain diseases are most prevalent in certain years depending on certain factors such as environment, eating habits and lifestyle. These factors change over time depending on the economy and state of the country's wellbeing (Kiku and Yarygina 2014; Arcaya, Arcaya, and Subramanian 2015; Kuate 2014).

Table 4.8 highlights the most prevalent diseases under the system disorders diagnosed at UNHCHC. Of the respiratory diseases, upper respiratory tract infections accounted for 13.9%, lower respiratory tract infections for 6.5% and pleurisy for 0.05%.

Upper respiratory tract infections are the most frequent infections; they are the most common symptomatic human infections in developed countries (Loo 2009; Francis and Butler 2010). Acute upper respiratory tract infections are the greatest single cause of death in children worldwide (File Jr 2012). According to Kumar *et.al.*(2013) upper respiratory tract infections are disorders characterised by an infectious process involving the upper respiratory tract (nose, paranasal sinuses, pharynx, larynx and trachea).

Symptoms include, congestion, sneezing, cough, fever and sore throat. Disorders include nasopharyngitis, sinusitis, pharyngitis, tonsillitis, laryngitis and cough.

Lower respiratory tract infections include acute bronchitis, acute exacerbations of chronic bronchitis and pneumonia (Mandell and Read 2010). Lower respiratory tract infections are frequent and are a major health problem due to their high morbidity (Raheison *et al.* 2003).

The burden of lower respiratory tract infections is highest in areas of low sociodemographic status, in populations that depend on solid fuels for cooking and heating, and in malnourished and immunocompromised populations (Troeger *et al.* 2017). Air pollution is one of the major causes of respiratory diseases in South Africa (Pramlall 2016). As stated in Chapter 1, UNHCHC is situated in Warwick Junction which is the largest street-trading and transport hub in Durban. It is both a trading and residential area (Chazan 2005). The high traffic levels in the area increases air pollution and carbon emissions, contributing to respiratory ailments. Pramlall (2016) states that studies have shown that exposure to air pollution related to traffic on the roads can contribute to asthma, this being one of the major respiratory ailments contributing to infant mortality.

Acute respiratory infections are one of the commonest reasons for visiting primary health care centres (Shaheen *et al.* 2017). Bateman and Jithoo (2006) mention that the lungs, more than any other organ system, are influenced by poverty, occupation and personal habits. These influences are seen in the association with tuberculosis. Poorer people compared within a country or between countries have a greater prevalence, morbidity, and mortality, of most respiratory diseases than richer people (Schraufnagel and Schraufnagel 2017).

The global prediction for developing countries is that by year 2020 respiratory diseases, including infections, will account for a large majority of deaths (Bateman and Jithoo 2006). Pramlall (2016) states that the most common complaint patients presented with at RHCC were coughs, which is usually due to an upper respiratory tract infection that is sometimes related to influenza or the common cold.

This information supports the findings of the results of this study July 2008- July 2017. The researcher concurs with the authors and the results of the study July 2008- July 2004.

Smillie (2010) has not included her findings of the study period June 2004- June 2008 with regards to the prevalence of respiratory conditions, therefore the researcher could not compare the results of this study period July 2008-July 2017 with that of smillie (2010) in this section.

Musculoskeletal disorders accounted for (12%) of disorders presenting at UNHCHC, with arthritis (all forms) accounting for (6.8%) of diagnoses. Table 4.2 shows that the second most prevalent age group of patients was the 40 to 64 years age. Age is a major risk factor for arthritis, the prevalence and incidence of osteoarthritis being correlated with age (Hassett and Spector 2002). This may be a contributing factor to the high incidence of musculoskeletal disorders presenting at UNHCHC. Smillie (2010) found that musculoskeletal disorders formed part of the most prevalent disorders and accounted for (9%) of the population of the study June 2004- June 2008 with, arthritis (all forms) accounting for (5%).

The results of this study July 2008 –July 2017, concur to that of Smillie (2010), as musculoskeletal disorders were amongst the top 5 most prevalent disorders.

With regards to dermatological disorders, any form of dermatitis (6.4%) was the most prevalent, followed by fungal skin infections (1.5%) and bacterial skin infections (1.4%), with the least being acne (0.6%).

Buxton and Morris-Jones (2009) and Burgos-Zavoda and Burch (2011) describe dermatitis as the term used to describe the characteristic clinical appearance of inflamed, dry, red, itching, scaly and vesicular skin rashes. The term dermatitis encompasses a wide variety of skin conditions, including atopic dermatitis, seborrheic dermatitis, irritant dermatitis, allergic dermatitis and lichen simplex to mention a few (Buxton *et al.* 2009).

Skin infections are a category of disease caused by specific pathogens. Skin infections can be divided into four categories: bacterial, fungal, viral and parasitic (Luo and Lu

2016). Skin diseases have a low mortality except from melanoma and a few other rare conditions. Worldwide, skin disorders rank low (Dalgard *et al.* 2004). Skin infections ranked low in this study as well, with bacterial skin infections accounting for 1.4% and fungal skin infections 1.5%.

Few studies address the prevalence of dermatitis in South African populations. however, it is accepted that dermatitis is a particular problem in children. Dermatological disorders, including its appendages (hair and nails), are frequently encountered in children (Todd 2014). Studies have shown that the frequency of emergency room visits for skin complaints among children is unexpectedly high accounting for up to 17.4% of all emergency room visits (AlKhater, Dibo and Al-Awam 2017).

As seen in Table 4.2 the age group 0 to 18 was the second lowest (9.7%) age group visiting the clinic, which further explains the low prevalence of dermatological diseases. As Admani *et al.* 2015 explains, cutaneous infections are more common and generally more severe in neonates and younger children than in adolescents and adults. A study conducted in Gauteng in the University of Johannesburg, Department of Homoeopathy found that more patients were beginning to utilise homoeopathy and other alternative therapies for the treatment of dermatitis (Meintjes and Nolte 2016). The researcher concurs with the authors cited and the results of the study July 2008- July 2017. It can also be noted that dermatological disorders are mostly prevalent amongst children as they play and interact more with dirty water and sand. Additionally, children have a tendency to scratch affected areas and considering the fact that children have easy contact amongst other children in, schools and day care centres, it increases the chances of spread of infectious cutaneous disorders.

Smillie (2010) found that dermatological disorders accounted for (11%), during the study period June 2004- June 2008. The results of Smillie (2010) are in similar association with the results of this study July 2008- July 2017 as the percentage of dermatological disorders accounted for (11%).

Gastrointestinal tract disorders accounted for 10% of the health disorders diagnosed at the UNHCHC in the study period July 2008 –July 2017. Of these, abdominal complaints (3.8%) were most common, followed by diarrhoea (1.7%) and constipation (1.6%). The gastrointestinal tract includes the oesophagus, stomach, small intestine, large intestine, rectum, and the accessory organs of digestion, the liver, gallbladder and pancreas (Moffett and Moffett 1993).

Gastrointestinal tract disorders are common in elderly patients and clinical presentation, complications and management may differ from those in younger patients (Reginelli *et al.* 2008). As seen in Table 4.2 the age group 65+ (8.9%) was the least prevalent group visiting UNHCHC, which could possibly explain the low prevalence of these disorders.

These complaints are the most common cause for consultation with the paediatric gastroenterologist (Saps *et al.* 2017). Worldwide more than 1.5 million children die each year from diarrhoeal diseases (Jaffe 2013). This could further explain the prevalence of gastrointestinal disorders as depicted in Table 4.2 because the age group 0 to 18 (9.7%) was the second least prevalent age group. The researcher concurs with the author cited, as most of the times diarrheal diseases in children is a medical emergency so patients would probably go to hospital first instead of a clinic.

Smillie (2010), found that gastrointestinal disorders accounted for (8%) and formed part of the least prevalent disorders. The results of this study July 2008- July 2017 are in similarity to that of Smillie (2010), as gastrointestinal disorders were part of the least prevalent disorders and accounted for (10%). Due to the fact that there was a larger number of consulting patients in the study period of July 2008- July 2017, there will be a variation in percentage as noted in Smillie (2010) (8%) and this study (10%).

As depicted in Table 4.8, cardiovascular disorders account for (5%) of all system disorders and hypertension at (4%) was the most commonly diagnosed cardiovascular disorder. Cardiovascular disorders were among the least commonly diagnosed disorders. This might be due to increased education on hypertension management offered at UNHCHC by the student interns. Smillie (2010) states that patients are informed of the seriousness of mismanagement of hypertension as well as the aetiology, contributing factors and the importance of regular blood pressure assessments.

Smillie (2010) found that cardiovascular disorders accounted for (21%) of commonly diagnosed disorders with hypertension accounting for (13%). The results of Smillie (2010) are in contrast to that of this study July 2008- July 2017. This might be in correlation to the education given to patients both by UNHCHC and the public health system as hypertension is a serious illness. A lot of information has been passed to the public on dietary interventions to manage hypertension, as well on the importance of the consumption of antihypertensive therapy.

The results of the study are in contrast to those of Erwin *et al.* (2014) who found that the most prevalent diseases diagnosed at KGHCC were hypertension together with

Diabetes Mellitus. Diabetes Mellitus accounted for only 1.3% prevalence in the current study July 2008- July 2017 at UNHCHC (refer to Table 4.8). It is important to take the location of the clinic into consideration as each community requires different needs. The prevalence of diseases in different areas depend largely on the location and on the surrounding environment of that area (Pramlall 2016). The researcher concurs with the authors cited. Smillie (2010) did not mention the prevalence of Diabetes Mellitus in her study June 2004- June 2008. Therefore, the researcher could not compare and contrast in this section.

## **5.8 Prescribed medications**

### **5.8.1 Homoeopathic remedies**

As depicted in Table 4.9, the five most homoeopathic remedies at UNHCHC were *Natrum muriaticum* (8.2%), *Bryonia alba* (6.1%), *Arsenicum album* (4.9%), *Rhus toxicodendron* (4.0%) and *Staphysagria delphinium* (3.5%). The results show that there was a similarity in the prescribed medicines with the previous audit conducted by Smillie (2010). Similarly, the Study June 2004- June 2008 found, *Natrum muriaticum* (8%), and *Staphysagria delphinium* (5%) to be the most prescribed homoeopathic remedies. The contrast in the remedies prescribed can be attributed to the contrast in the presenting and most prevalent diseases at UNHCHC during the study period July 2008- July 2017.

Smillie (2010) found that *Natrum muriaticum* (8%), *Sepia officinalis* (5%), *Aconite napellus* (5%), *Staphysagria delphinium* (5%), and *Pulsatilla nigricans* (5%) were the most prescribed remedies at UNHCHC during the period of her study June 2004- July 2008.

*Natrum muriaticum*, is a deep and long acting remedy. The type of patient that generally requires this remedy has shiny, pale looking skin. They are emaciated, weak and have nervous irritability. The person easily takes on grief and grieves over nothing. This remedy is prescribed for a wide range of ailments and conditions such as disturbances of the alimentary tract and skin (dermatitis, acne, urticaria), digestive

disturbances, mental behaviour (grief, extreme emotions), common colds with fluent coryza, coughs, headaches and backaches (Kent 1989; Vermeulen 2001).

*Natrum muriaticum* can act on different systems and can be prescribed for a wide array of conditions. Table 4.8 shows that respiratory diseases, musculoskeletal diseases, dermatological disorders, gastrointestinal tract diseases were the most prevalent diseases at UNHCHC, which could account for the high prescribing rate of *Natrum muriaticum*, as this remedy can be prescribed for ailments under all these systems.

Smillie (2010) found that *Natrum muriaticum* accounted for (8%) of the prescribed remedies this attesting for the most commonly prescribed remedy. The findings of this study July 2008- July 2017 were similar with the findings of Smillie (2010). This can be attested to the most prevalent diseases found at UNHCHC as previously mentioned.

*Bryonia alba* was the second most prescribed remedy at UNHCHC. This remedy is suitable for many diseases, with inflammatory complaints being one of the predominant features of this remedy. Its inflammatory complaints include inflammation of the membranes of the, pleura, peritoneum and pericardium are symptoms often described. Inflammation of the joints, muscle aches and pains. This homoeopathic remedy is also prescribed for patients that present with symptoms that are worse for cold exposure and motion (Kent 1989). This remedy was mostly used at UNHCHC to treat arthritis and arthralgia. As Table 4.8 illustrates, musculoskeletal disorders were the second most prevalent disorders. The researcher concurs with the results of this study July 2004- July 2017.

*Arsenicum album* was the third most frequently prescribed remedy at UNHCHC. This remedy acts on every organ and tissue in the body. Its characteristic symptoms and correspondence to many severe types of diseases make its homoeopathic employment constant. The main features that are characteristic of this medicine are anxiety, debility, exhaustion, restlessness with night aggravation. The predominant sensation that is felt with complaints is that of burning (Kent 1989; Vermulen 2001).



At UNHCHC this remedy was commonly clinically prescribed for ulcers. As Vermulen (2001) states, this homoeopathic remedy may be applicable for gastritis, vomiting, irritation of the stomach, inflammation of the oesophagus and extreme sensitivity of the stomach. Table 4.8 shows that gastrointestinal tract disorders had a prevalence rate of 10% and were the fourth most common disorder at UNHCHC.

The five most commonly prescribed homoeopathic remedies are polychrests. Polychrests are remedies that are frequently used, have a broad spectrum of action and are used for many ailments. A great polychrest is indicated in all forms of diseases (Cummings and Ullman 1997).

Sankaran (2008) states that homoeopathy has progressed from a symptom-based approach to a systematic approach where remedies are part of groups as found in nature, rather than to discrete identities. Traditionally homoeopathic remedies were selected according to symptoms; remedies are now categorised based on fundamental principles and are classed according to kingdoms.

Table 4.10 shows the most prescribed remedy kingdom at UNHCHC. The plant kingdom accounted for 44.4% of the homoeopathic remedies prescribed at the UNHCHC, followed by mineral kingdom. Despite this, Table 4.11 shows that *Natrum muriaticum*, belonging to the mineral kingdom, was the most frequently prescribed remedy, followed by *Bryonia alba* of the plant kingdom.

The plant kingdom was the most prevalent remedy group prescribed at UNHCHC as depicted in Table 4.10. The main issue of the plant kingdom is of sensibility, reactivity, changeability and adaptability (Sankaran 2008). Plant remedies are commonly prescribed at UNHCHC as these remedies are polychrests, as seen in Table 4.11. *Bryonia Alba* and *Rhus toxicodendron* are frequently prescribed for musculoskeletal disorders, while *Pulsatilla Nigricans* is frequently prescribed for female reproductive disorders. Smillie (2010) states that *Pulsatilla nigricans* was the most commonly prescribed remedy at UNHCHC over her study period June 2004- June 2008. As seen in Table 4.8, musculoskeletal disorders accounted for 12% of diagnoses in the current study period July 2008- July 2017, being the second most prevalent disorder, followed by female reproductive disorders which accounted for 7% of diagnoses.

The mineral kingdom accounted for 40.0% of prescriptions, which was the second most commonly prescribed remedy kingdom. The main issues of this kingdom are related to structure or lack of structure, maintaining or losing the structure (Sankaran 2008).

*Natrum muriaticum* and *Arsenicum album*, as depicted in Table 4.11, are part of the mineral kingdom and these are part of the top five remedies prescribed at UNHCHC. Pramlall (2016) reports that *Arsenicum album* was the second most commonly prescribed remedy at RHCC, with *Natrum muriaticum* also being among the top five remedies frequently prescribed at RHCC. As stated previously both these remedies were used to treat the major prevalent disorders, which can account for the mineral kingdom being the second prevalent kingdom.

In selecting a remedy, a homoeopathic practitioner must have the knowledge of the remedies in the materia medica, knowledge of the diseased patient and the skill of matching the disease picture with the drug picture. Homoeopathic treatment is individualised and careful investigation of the case is required for individual treatment of the disease. There is no specific remedy for a specific disease or condition; a remedy that is specific for a patient is prescribed based on their physical, mental and emotional state and the condition/patient is treated holistically. One specific remedy is able to treat a variety of conditions (Gunavante 1994; O'Reilly 1996; Pramlall 2016).

### **5.8.2 Potencies and dosage**

Figure 4.11 shows that the most prescribed homoeopathic remedy potency was 30CH plussed (40.0%). This was followed by 30CH (31.4%) and 200CH (27.0%). The findings are in contrast to the previous audit conducted by Smillie (2010) which concluded that 30CH, 200CH, 1M potencies were the most prevalent in prescription. The researcher concurs with the results of the study July 2008- July 2017, as each homoeopathic practitioner prescribes differently from each other, as previously mentioned that the student interns are supervised by qualified homoeopathic practitioners (clinicians). Therefore, clinicians advise students on the posology. Each

patient is treated individually, therefore, the potency and dosage is also individualised to a certain consultation.

Two factors determine the choice of the potency: the degree of similarity of the remedy, and the state of the immune system of the patient and its ability to absorb a high potency without an excessive reaction (Gunavante 1994).

30CH plussed potencies are administered in 20ml, 25ml, or 30ml bottles as shown in Figure 4.12. Patients are instructed to shake the bottle vigorously 10 times so as to succuss it, then take 10 drops of the liquid under the tongue. The reason for succussing plussed potencies is to strengthen the dose each time before taking the remedy, which ensures that the patient is not administering exactly the same potency every day (O'Reilly 1996; Pramlall 2016).

30CH plussed potency was prescribed at UNHCHC during the 4-year period June 2004- June 2008 that Smillie conducted her audit, but accounted for only 3%, being the least prescribed potency. This shows that potency patterns have changed at UNHCHC over time. Smillie (2010) emphasises that there are many different approaches with respect to potency selection which changes as homoeopathy evolves. The researcher concurs with Smillie (2010) as homoeopathic practitioners prescribe differently from each other. Choice of potency and dosage is also dependent on how well the homoeopathic practitioners feels that, the remedy fits into the total symptom picture of the patient (symptom Similarity index).

30CH potency was the second highest followed by 200CH. Gunavante (1994) states that medium to high potencies are used in acute cases, cases with marked mental symptoms and when the totality of symptoms indicate the remedy. Medium to high potencies include 30CH, 200CH and M potencies.

30CH and 200CH potencies are dispensed in granules in 8ml bottles (number 1 vial) or 10ml bottles (number 2 vial) or given in powders. The patient is either given 1, 3, 5 or 6 powders. As depicted in Figure 4.12 the most prescribed quantity was 3 powders (22.7%), followed by 6 powders (18.3%).

Smillie (2010) did not mention the type of materials used to dispense medication and the quantity of the materials used to dispense medication, therefore the researcher cannot compare and contrast in this section.

The dosage of a remedy is dependent on the depth of action of the remedy, the acuteness or chronicity of the disease and the susceptibility of the patient (Gunavante 1994). Homoeopathic medication is taken under the tongue; the tongue and mouth are the most susceptible to the influence of medicine (O'Reilly 1996; Gunavante 1994).

Figure 4.13 suggests that the frequency of homoeopathic remedies that was prescribed most frequently at UNHCHC during the study period was 1 powder daily (56.3%), followed by 10 granules daily (17.1%). The frequency of the dosage is influenced by the potency of the remedy; repetition should depend on the patient's reaction (vitality) and the dose of the remedy (Gunavante 1994).

The researcher concurs with the authors cited and with the results of the study, as mentioned previous that posology is dependent on the homoeopathic practitioner.

### **5.8.3 Phytotherapeutic medicines (herbal tinctures and herbal complexes)**

Table 4.12 summarises the phytotherapeutic medicines prescribed during the study period July 2008- July 2017. Herbal tinctures were prescribed 851 times, with *Crataegus oxyacantha* (13.5%) being the most frequently prescribed, followed by *Valeriana officinalis* (9.60%). Smillie (2010) reported that *Crataegus oxyacantha* and *Calendula officinalis* were the most frequently prescribed phytotherapeutic measures during the period of her study June 2004- June 2008.

*Crataegus oxyacantha*, also known as Hawthorn, is a traditional medicinal plant that is considered to be a "cardio-tonic" herb. The plant has been used in traditional medicine to treat irregular heartbeat, high blood pressure, chest pain, hardening of the arteries, and congestive heart failure. The antioxidants in *Crataegus oxyacantha* help control high blood pressure and high cholesterol (Sokół-Łętowska, Oszmiański and Wojdyło 2006).

*Crataegus oxyacantha* extract has been proven to play a role in the improvement of cardiovascular diseases such as hypertension, hyperlipidaemia, and in particular, congestive heart failure. It was found that these effects are due to the presence of antioxidant flavonoid components. In a clinical study conducted by Jalaly *et al.* (2015), results showed that *Crataegus oxyacantha* extract, through its protective effect against oxidative stress caused by released free radicals, can improve cardiac function and reduce infarct size in prolonged coronary ischaemia.

Duke *et al.* (2002) states that the herb is extremely safe for long term use. *Crataegus oxyacantha* is a slow-acting herb. The dosage depends on the type of preparation and source material. Studies to standardise the content of active ingredients and stability of differing tinctures have been performed. Doses tested in European clinical studies ranged from 160mg to 900mg a day of *Crataegus oxyacantha* extract standardised to contain 2.2% of flavonoids or 18.75% of oligomeric proanthocyanidins. Positive effects are usually observed within the first two weeks of *Crataegus oxyacantha* supplementation.

There are no documented adverse effects associated with low doses, but higher doses increase the risk of drug induced hypotension and sedation. The German Commission has approved the use of *Crataegus oxyacantha* as a heart remedy (Arya, Kashyap and Thakur 2012).

Patients attending UNHCHC tend to present with multiple conditions and students are advised to treat the most deranging ailment that patients present with. For the least deranging symptom or condition, adjunctive or supportive treatment is generally prescribed. As shown in Table 4.2, the 40 to 64-year-old age group was the second most prevalent and those are the patients that generally present with hypertension as a concomitant condition (condition associated with the main complaint) (Gunavante 1994). High blood pressure, or hypertension, is a common medical condition, estimated to occur in about one in three young adults, increasing to about 60% for those over 60, and affects more than three of four people older than 70 (Staessen *et al.* 2003). Patients that present with hypertension as a concomitant condition are generally under conventional antihypertensive medication, therefore *Crataegus oxyacantha* is prescribed as supportive therapy for hypertension.

As seen in Table 4.8, cardiovascular disorders accounted for 5% of the frequently diagnosed disorders with hypertension being 4%, therefore hypertension was not often the chief complaint but presented as a concomitant condition.

Of the herbal complexes prescribed at UNHCHC, Immune Complex was the most prescribed herbal complex and accounted for 40.7%. This herbal complex is composed of *Echinacea purpurea*, *Phytolacca americana*, *Baptisa tinctora*, *Myrrh*, and *Pulsatilla nigricans*. This correlates with Table 4.8 which shows that respiratory disorders accounted for 21% (of the respiratory diseases influenza accounted for, (66%) of the presenting respiratory disorders) and infectious diseases 7% during the study period July 2008- July 2017. The respiratory system constitutes the mucosa-associated-lymphoid tissue known as the bronchus-associated-lymphoid tissue. This lymphoid tissue is responsible for respiratory immunity (Zanvit 2009). This validates the use of the Immune Complex for respiratory disorders.

People that presented with influenza and other respiratory infections were given Immune Complex, as were patients that presented with infectious disorders such as HIV and other immune compromising infections. The Immune Complex is supportive therapy to help promote and strengthen the immune system. Smillie (2010) states that the Immune Complex is prescribed to fortify the immune system and assist the patient to overcome their respective infection. Similarly, Smillie (2010) found that Immune Complex was the most frequently prescribed complex at UNHCHC and accounted for 50% of the prescriptions during the first audit.

#### **5.8.4 Adjunctive medicines**

Table 4.14 shows the most prescribed adjunctive medicines, with Echinaforce at 26.20% being the most frequently prescribed adjunct. Echinaforce is sponsored by South African Natural products. South African Natural products is a supplier of raw materials, finished herbal and homoeopathic medicines. UNHCHC was awarded the sponsorship in 2015.

Echinaforce has been clinically proven to regulate immune function, prevent and treat colds, influenza and upper respiratory tract infections. It reduces the occurrence of recurring upper respiratory tract infections and risk of complications (Anon 2018).

The findings correlate with Table 4.8 which shows respiratory disorders at 21%, and upper respiratory tract infections at 13.9% of diagnoses.

The dosage is 20 drops daily (Anon 2018). This correlates with Figure 4.15 as 20 drops daily was the most prescribed dosage for phytotherapeutic medicines and adjunctive medication.

Phytotherapeutic medicines and adjunctive medication were dispensed in 30ml and 50ml (plastic or glass) bottles. As Figure 4.16 shows, the most prescribed quantity was 30ml (51.2%) followed by 50ml (17.4%) with regards to phytotherapeutic medicines and adjunctive medicines. Sponsored medication from South African Natural products came prepacked in dropper bottles, namely, Boldocynara 50ml, Echinaforce 30ml and 50ml and Nephrosolid 50ml.

#### **5.8.5 Tissue salts**

A total of 409 tissue salts prescriptions were issued at UNHCHC from 2008 to 2017. As shown in Table 4.15, Magnesium phosphoricum (17%) was the most frequently prescribed tissue salt.

Tissue salts support bodily functions by improving the way in which the body absorbs and uses minerals, and they maintain the structure and function of the cells. They aid in prevention of disease (Anon 2018). Tissue salts are prescribed in combination with homoeopathic medication as a supportive therapy for patient ailments. Tissue salts are sponsored by Comed Health at UNHCHC.

Magnesium phosphoricum (also known as Mag phos) was the most prescribed tissue salt. Mag Phos helps to relieve spasmodic pain, muscle cramps and sprains as well as menstrual cramps and muscle pain (Anon 2018). As seen in Table 4.8, musculoskeletal disorders (12%) were the second most prevalent disorders and female reproductive disorders accounted for 7% of disorders, which correlates with Magnesium Phosphoricum being the most prevalent tissue salt prescribed.

The dosage for tissue salts is 2 tablets taken 3 times daily under the tongue (Natura 2018). As Figure 4.19 shows, that the most frequent dosage for tissue salts was 6 tablets daily (21.5%).

The pie chart in Figure 4.18 shows the tissue salt combinations prescribed at UNHCHC during the study period July 2008- July 2017. Headache combination (30%) was the most prescribed. Smillie (2010) also found that headache combination was the most frequently prescribed at UNHCHC. As previously mentioned that the student interns were advised to treat the main complaint with a homoeopathic remedy and prescribe an adjunct for the concomitant symptoms. At UNHCHC patients presented with headaches as concomitant symptoms and not the main complaint.

#### **5.8.6 Herbal creams**

Herbal creams were prescribed 628 times at UNHCHC during the study period July 2008- July 2017. As seen in Figure 4.20, the *Calendula officinalis* and Olive oil herbal cream combination (29.5%) was the most frequently prescribed. *Calendula officinalis* is commonly used to treat inflammation of the skin, and is beneficial for dry, irritated skin. It promotes fast healing and skin regeneration, and possesses antiseptic properties (Sharp *et al.* 2013). Virgin olive oil was used at UNHCHC as a carrier oil for *Calendula officinalis*. Olive oil is known for its moisturising, anti-inflammatory, antiseptic and soothing properties when employed on the skin. Treatment with olive oil has no side effects as olive oil does not traumatise or burn the skin (Badiu, Luque and Rajendram 2010), making the combination of *Calendula officinalis* and olive oil suitable for application on skin for conditions presented at UNHCHC. This combination was prescribed to patients that presented with dermatological conditions at UNHCHC. Patients were instructed to apply the combination daily as Figure 4.21 depicts.

As previously mentioned that the student interns were advised to treat the main complaint with a homoeopathic remedy and prescribe an adjunct for the concomitant symptoms. At UNHCHC patients presented with dermatological conditions (burn wound, irritated skin etc.) as concomitant symptoms and not the main complaint.



Smillie (2010) has not discussed herbal creams in the study June 2004- June 2008, therefore, the researcher was unable to compare and contrast in this section.

## **5.9 Improvements found at UNHCHC**

Table 4.16 shows the improvements that have been found at UNHCHC according to the recommendations made by Smillie (2010).

The improvements achieved according to the recommendations of Smillie (2010) are:

- Provision of a glucometer, pregnancy testing kits and peak flow meter at UNHCHC.
- Two additional clinician's assistants have been employed at UNHCHC and work on different operational days at UNHCHC, decreasing the administrative duties of the attending clinician. The clinician's assistants also form part of the translation team when required to translate for student interns.
- A computerised filing and labelling system has not been provided. However, filing and logging of patient files forms part of the administrative duties of the clinician's assistant. Clinician assistants also ensure that record keeping is up to date. Amongst the reasons for not installing a computerised filing and labelling system is that such a system is dependent on a continued supply of electricity, and factors such as power outages would impact on the accessibility of patient files. In addition, such a system would require specialised equipment which would require additional funding from DUT. Computer software and hardware are susceptible to malfunction and collapse, therefore maintenance of such equipment would be required, which would be further financial constraint for a clinic that is being funded by a learning institution such as DUT.
- UNHCHC commenced operation last year on the 5<sup>th</sup> March 2018 (Ngobese-Ngubane 2018). UNHCHC commences operation each year after students are fully registered.

- According to AHPCSA students not registered cannot perform clinical practice. Commencement of the clinic depends on the DUT official calendar, which stipulates the commencement time as February. Certain conditions such as student/staff strikes and financial constraints of the university impact on the commencement of UNHCHC. UNHCHC is funded by DUT and also forms part of the DUT academic calendar. UNHCHC operates during end of term holidays
- Provision of a ground floor consulting room has been attained. A shared consultation space between Lifeline and UNHCHC serves as a consulting space. The office space consists of an examination bed, table and chairs suitable for a homoeopathic consultation. Ethical considerations such as privacy and respect for the patient is also maintained within the office space. This common shared room serves as a consultation room for patients who are unable to access the clinic on the 3<sup>rd</sup> floor due to disabilities. The only access is a flight of stairs.
- Provision of language translators has been made. In 2009 the language isiZulu was introduced into the curriculum as a module. This module does not form part of the official curriculum, but students have access to the module through the clinic director Dr Ngobese-Ngubane. The module is termed “isiZulu for Healthcare practitioners”. The module enables students to have a basic knowledge of isiZulu which enables them to better interact with patients. While the researcher fully acknowledges Smillie’s (2010) recommendations, Smillie (2010) did not anticipate the future changes in the racial makeup of students in the Department of Homoeopathy. Currently there are more African students than White, Indian and Coloured students. These students are fluent in both English and isiZulu. Translation, if required, is provided by the clinician’s assistant.
- Computerised repertorisation software has not been provided. This can be accounted for by virtue of the fact that the Department of Homoeopathy does not include training in repertorisation software as part of the clinical practice. Student interns are educated in detail on manually repertorising patient cases.

The head clinician has access to repertorisation software, due to the nature of consultations, cases and the time factor. Students are instructed to take with them to UNHCHC a materia medica, *Materia Medica of Homoeopathic Remedies* (Kent 1989) and a repertory, *Synthesis* (Vithoulkas 1993). Both the mentioned books aid in repertorisation of patient cases and help to find the most suitable homoeopathic remedy.

In the period of 2017 UNHCHC was renovated to meet the Allied Health Professionals council criteria. The clinic now consists of:

- Dispensary room. This houses all homoeopathic medication and patient files and serves as a case discussion room for student interns and the attending clinician. The dispensary room has fully secured medication shelves, a water dispenser, a fully fitted desk top for making and dispensing remedies, tiled floor and a fan for cooling of the room.
- Three consultation rooms. Each consultation room consists of an examination bed, a consultation table and chairs, medical sharps bin and all floors are fully tiled.
- One storage room with student intern lockers (for luggage).
- Two clean toilet facilities on the same level as the clinic. The toilets are always kept clean. Both toilets have hand washing soap and hand sanitiser for patients to utilise.
- Two signs outside the premises stipulating the name of the clinic (the clinic has recently changed its name to Ukuba Nesibindi Community Health Centre as stipulated by AHPCSA), operating hours and clearly demarcates the location of the clinic. The first sign is located outside the building at street level, and the second sign is located outside UNHCHC entrance on the 3<sup>rd</sup> floor.

- Besides the clinician, the clinic has three additional members of staff, namely, two clinician assistants and a staffperson who is responsible for cleaning services at UNHCHC. These improvements were confirmed by Dr Harripersad (senior clinician at UNHCHC) when interviewed on the 08 August 2018.

## **5.10 Conclusion**

In this chapter the patient demographic profile, disease profile and treatment protocols at UNHCHC, audited from July 2008- July 2017 were described, explained and compared. The results of this audit were also compared to Smillie (2010). These profiles were described according to the objectives outlined in the study, as summarised below.

### **5.10.1 Objective one: To determine a patient demographic profile and the disease profile at UNHCHC from July 2008 to July 2017.**

The study from July 2008 to July 2017 revealed that the patient demographic profile for UNHCHC was African (95.0%), females (69.10%) between the ages 25 to 39 (39.6%) of whom the majority were unemployed (63.9%). Respiratory diseases (21%), musculoskeletal system disorders (12%), dermatological diseases (11%) and gastrointestinal tract diseases (10%) were the most prevalent diseases at UNHCHC and form the disease profile of UNHCHC during the 10 years from 2008 to 2017.

### **5.10.2 Objective two: To describe various treatment protocols prescribed at UNHCHC from July 2008 to July 2017.**

*Natrum muriaticum* (8.2%), was the most frequently prescribed homoeopathic remedy, with 30CH plussed (40.0%) being the most prescribed potency. *Crataegus oxyacantha* (13.5%) and *Valeriana officinalis* (9.60%) were the most frequently prescribed phytotherapeutic herbal tinctures with 20 drops daily being the most prescribed dosage for phytotherapeutic interventions and adjunctive medicines. In terms of the herbal complexes the Immune Complex accounted for 40.7% of the most frequently prescribed complexes.

Echinaforce accounted for 26.20% of the most prevalent adjunctive medicine prescriptions. Mag phos (17%) was the most prescribed tissue salt with the headache combination (30%) being the most frequently prescribed tissue salt combination. *Calendula officinalis* and olive oil herbal cream (29.5%) accounted for the most prescribed creams.

#### **5.10.3 Objective three: To compare the results of this study to a retrospective study done in June 2004-June 2008 by Smillie (2010)**

The results of this study concurred with those of Smillie (2010) with a difference in patient demographics in terms of (age), patient referrals, main complaints (disease profile) and medications (treatment protocol).

#### **5.10.4 Objective four: To check if there were any improvements found at UNHCHC according to the recommendations made by Smillie 2010.**

The results revealed that there were major improvements implemented at UNHCHC with renovations of UNHCHC meeting the standards of AHPCSA. These improvements were suggested by Smillie (2010) and most of them have been implemented, with the exception of a few.

The researcher can conclude that the aims of the study were achieved, which was to determine a patient demographic and disease prevalence profile at UNHCHC, as well as identify and describe the major medicines prescribed, compare the results of this audit July 2008-July 2017 to that of Smillie (2010). To check if there were any improvements found at UNHCHC according to the recommendations made by Smillie 2010.

The researcher can conclude that the aims of the study were achieved, which was done as an audit of 10 years (2008 to 2017), was a comparative, retrospective, descriptive, explanatory study, to determine the patient demographics, disease prevalence profile and identify the major medicines prescribed at UNHCHC, and compared these results with Smillie (2010) study.

## CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

### 6.1 Introduction

The research problem was stated in Chapter 1 as follows:

UNHCHC serves as an official satellite teaching clinic which is part of both B. Tech. and M.Tech: Homoeopathy programme and has become an established healthcare provider in the adjacent Warwick community (Watson 2015). A clinical audit is part of a continuous quality improvement process for public service facilities. The comparison between clinical practice and standards leads to the formulation of strategies in order to improve daily quality (Esposito *et al.* 2014). There has not been an audit for 10-years at UNHCHC, since the previous audit conducted by Smillie (2010). UNHCHC is a facility that renders health services to the public and it is imperative that UNHCHC is constantly reviewed to establish evolving trends and improve the quality of service offered.

The research problem was then explored according to the following objectives:

- 6.1.1 First objective: To determine the patient demographic profile and the disease profile at UNHCHC from July 2008 to July 2017.
- 6.1.2 Second objective: To describe various treatment protocols prescribed at UNHCHC from July 2008 to July 2017.

Objectives one and two were achieved through the following method:

A clinical audit was conducted at UNHCHC. The study used a retrospective, explanatory, comparative and descriptive design method. This design method was employed to determine the patient demographic profile, disease profile and to describe various homoeopathic treatment modalities employed at UNHCHC and compared these results to Smillie (2010) study.

A data collection tool (Appendix D) was employed and divided into patient demographic information (such as race, age and gender), employment history, number of consultations (new and follow up), disease conditions, examination procedure such as (urine dipstick and full comprehensive physical examination) and treatment protocol. UNHCHC logbooks were used to facilitate the process to identify all files of patients who attended UNHCHC after June 2008. The UNHCHC logbooks contain patient name, surname, date of consultations, medication prescribed and patient diagnosis.

- **Third objective:** To compare the results of this study to a retrospective study done in June 2004 to June 2008 by Smillie (2010).

Objective three was achieved through comparing the results of the retrospective clinical audit to that of Smillie (2010). There were some similarities and differences between these 2 audits and were discussed in the previous chapter.

- **Fourth objective:** To check if there were any improvements made at UNHCHC according to the recommendations made by Smillie (2010).

Objective four was achieved by comparing the improvements at UNHCHC to those recommended by Smillie (2010). The researcher observed these improvements and they were confirmed by the senior clinician Dr Harripersad.

## **6.2 Conclusion**

UNHCHC has continued to develop and grow over the years since its inception in 2004. Both the retrospective studies conducted at UNHCHC over its 14-year history have illustrated the growth in patient numbers as well as prevalent diseases seen at UNHCHC.

The statistics obtained from the study with regard to the numbers of new patients (2 923) and the number of follow-up patients (865), suggest that UNHCHC has impacted on the community of Warwick Junction positively and this shows that the service provided at UNHCHC is of a good standard. Previous perception studies conducted by Dube (2015) and Watson (2015) at UNHCHC showed that the patient's overall impression were satisfactory.

The results obtained from this study demonstrates that homoeopathy as a profession, within the medical field can be included in the national primary health care system. Furthermore, the accelerated growth rate of UNHCHC shows that more people within the province and possibly the country are becoming aware of homoeopathy as a profession.

Inclusion of homoeopathy within the public health sector could assist in reducing the overcrowding of patients experienced at the public health clinics. This statement is supported by the positive results of this study. More homoeopathic clinics should be established in impoverished communities around the country, along the lines of the UNHCHC, which has proven to be an effective community health clinic within the Warwick Junction community.

Lifeline South Africa and UNHCHC are located in the same building and often HIV patients were referred to UNHCHC. This shows that homoeopathy can be included within the public health system and is able to work successfully in conjunction with conventional medicine.

### **6.3 Limitations of the study**

- Certain patient files were excluded as these files were incomplete and had missing information.

### **6.4 Recommendations**

The following recommendations are presented in order to help improve UNHCHC and the services offered to patients.

1. A computerised system should be utilised to store patient files, as this would serve as a backup storage for patient files.
2. The clinical audits at UNHCHC should be conducted frequently and timeously. In this way, management will be able to assess the successes and areas that require development more frequently.
3. All patient files with missing information should be updated accordingly. Frequent updating of these files should be made as this would ensure that files are kept up to date.



## **6.5 Further research studies**

1. The financial expenditure of UNHCHC was not included in this study, so future retrospective clinical audits could include the operational expenditure of UNCC.
2. A comparative study of all the existing community satellite clinics should be done based on all the data obtained from the clinical audits that have been conducted thus far. This study can assess and report on the trends of all the satellite clinics.

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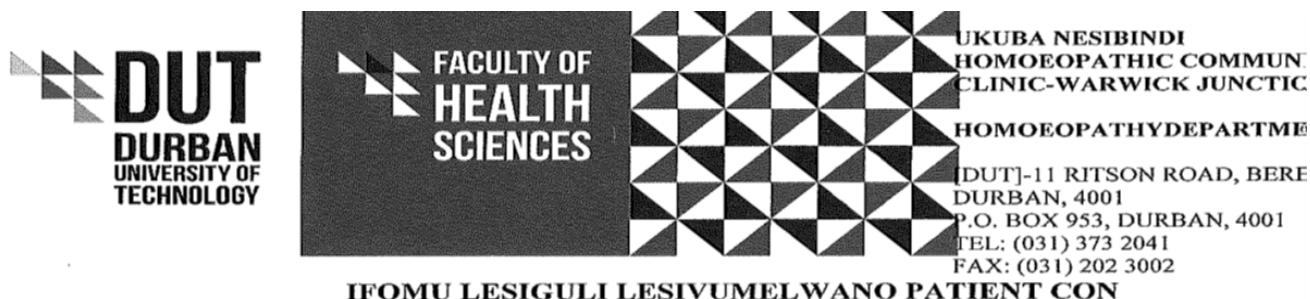
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## APPENDICES

### Appendix A1&A2 (Patient consent forms)



**IFOMU LESIGULI LESIVUMELWANO PATIENT CONSENT FORM**

**PLEASE READ AND FILL IN THIS FORM.**

DATE: ...../...../20.....

TITLE: DR./ MR./MRS./MS/MASTER/PASTOR (please circle)

Gender: Male / female (Please circle)

SURNAME: ..... FIRST NAMES: .....

DATE OF BIRTH:..... IDENTITY NUMBER:.....

CONTACT DETAILS:(TEL.).....(CELL)..... (WORK).....

POSTAL

ADDRESS:.....AREA.....CODE.....

**TO BE COMPLETED BY THE PARENT/ LEGAL GUARDIAN IN THE CASE OF PATIENTS UNDER THE AGE OF 18 YEARS:**

I hereby give consent for.....who is a minor, to be examined and treated at Ukuba Nesibindi homoeopathic community clinic.

NAME OF PARENT/ GUARDIAN:.....

RELATIONSHIP OF PARENT/ GUARDIAN TO MINOR:.....

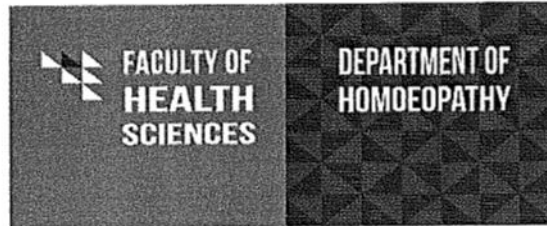
SIGNATURE OF PARENT/GUARDIAN: .....

**PLEASE READ AND SIGN THE FOLLOWING:**

AS A PATIENT AT THIS CLINIC, I UNDERSTAND THAT I AM ATTENDING A TEACHING INSTITUTE. I HEREBY GIVE PERMISSION TO ALLOW CLINICAL OBSERVATION AND DIAGNOSIS TO BE PERFORMED AS WELL AS TREATMENT TO BE PRESCRIBED FOR MYSELF BY A SENIOR HOMOEOPATHIC STUDENT PRACTITIONER, SUPERVISED BY A QUALIFIED AND REGISTERED HOMOEOPATHIC CLINICIAN. I ALSO GIVE CONSENT TO DATA OBTAINED FROM MY FILE BE USED IN CASE OF RESEARCH PURPOSES, HOWEVER NO DISCLOSURE OF PERSONAL DETAILS AND CONFIDENTIALITY MUST BE MAINTAINED AT ALL TIMES ACCORDING TO ALL REGULATIONS, ETHICAL CODE OF CONDUCT AND BY LAW.

**SIGNATURE: .....DATE:.....**

**PARENT/ GUARDIAN.....(IF PATIENT IS UNDER 18 YEARS)**



UKUBA NESIBINDI  
HOMOEOPATHIC COMMUNITY  
CLINIC-WARWICK JUNCTION

HOMOEOPATHY DEPARTMENT

[DUT]-11 RITSON ROAD, BEREA,  
DURBAN, 4001  
P.O. BOX 953, DURBAN, 4001  
TEL: (031) 373 2041  
FAX: (031) 202 3002

### IFOMU LESIGULI LESIVUMELWANO

**SICELA UFUNDISE LELIFOMU BESE ULIGCWALISA NGOKUFANELEKILE.**

USUKU: ...../...../20.....

Dkt./ Mnu./Nkz./Nks/uMASTER/uMfundisi (sicela uzongeleze)

UBULILI: Owesilisa / owesifazane (Sicela uzongeleze)

ISIBONGO: .....AMAGAMA: .....

USUKU LOKUZALWA:..... INOMBOLO KAMAZISI:.....

IMININGWANE YOKUXHUMANA:(UCINGO.).....(I-CELL).....  
(EYOMSEBENZI).....

IKHELI

LEPOSI:.....INDAWO.....IKHODI.....

LENGXENYE KUMELE IGCWALISWE UMZALI NOMA UMBHEKI OSEMTHETHWENI  
WONTWANA LAPHO ISIGULI SINEMINYAKA ENGAPHANSI KWENGU 18 UBUDALA:

Lapha nginikeza igunya nemvume ka.....omununcane  
ngokweminyaka ngokomthetho ukuba azimele ukugunyaza ukuba ahlolwe futhi axilongwe  
kulomtholampilo Ukuba Nesibindi homoeopathic community clinic.

IGAMA LOMZALI/ UMBHEKI:.....

UBUDLELWANE BOMZALI/ UMBHEKI NOMNTWANA:.....

UPHAWU LWESIVUMELWANO LUKAMZALI/UMBHEKI: .....

**SICELA UFUNDE LENDIMA ELANDELAYO BESE USAYINA NGOKUFANELEKILE:**

NJENGESIGULI KULOMTHOLAMPILO, NGIYAQONDA UKUTHI NGIHAMBELA ISIKHUNGO  
SEZEMFUNDO. LAPHA NGINIKEZA IGUNYA LOKUGUNYAZA UKUFUNDA KWABAFUNDI ABENZA  
IZINGA LESINE KANYE NELESIHLANU NGEZEMPILO NOKUCWANINGA OKUFANELEKILE  
NOKUBHEKISISA KANYE NOKUHLOLA BAVEZE LOKHO OKUYIMBANGELA YOKUGULA KWAMI, BESE  
BENGINIKEZA LAWOMAKHAMBANI NEMITHI EFANELEKILE UKWELAPHA UKUGULA KWAMI,  
BEKWENZA LOKHU NGAPHANSI KOMHLOLI NOMQAPHI ONEZIKU NOKUGOGODELE  
WAKUBHALISELA UKWELAPHA NGENDLELA YEHOMOEOPATHY. NGIYAGUNYAZA  
UKUSETSHENZISWA KWEMININGWANE YAMI ESEFAYELINI LAMI EZIMWENI ZOCWANINGO KEPHA  
KUNGADALULWA IGAMA NESIBONGO, NOMAZISI, NEKHELI KANYE NEZINOMBOLO ZAMI ZOCINGO.  
FUTHI KUGWENYE UKUDALULWA MFIHLO NGAMI NJENGALOKHU UGAQO SISEKELO  
WAMALUNGELO OMTHEHLO ESHO.

UPHAWU LWESIVUMELWANO: .....USUKU:.....

UPHAWU LWESIVUMELWANO LUKAMZALI/UMBHEKI: .....



## **Appendix B1 (Permission application letter to the Head of Department)**

P O BOX 1339  
Tongaat 4400

Faculty of Health Science: Head of Department  
Homoeopathic Department  
P.O. BOX 1334  
Durban  
4000

Dear Dr Hall

### **Permission Application Letter to use the Ukuba Nesibindi Homoeopathic Community Health Centre (UNHCHC)**

Thank you for reading this letter. My name is Miss Zinhle Pearl Mdluli (21109951). I am currently registered for M. Tech. Homoeopathy and I am requesting to conduct my research study at Ukuba Nesibindi Homoeopathic Community Clinic (UNHCHC). The title of my study is: **A nine-year comparative retrospective clinical audit of a homoeopathic community satellite clinic Ukuba Nesibindi.**

**Outline of the Procedures:** A log book with all the cases from the clinic will be used to select all the patients that were seen at the clinic from July 2008- July 2017 at UNHCHC. Only the files that meet inclusion criteria as stated in the PG2 document. Data capturing will take place at this site under the supervision of head clinician. Will not be removed from the clinic and they shall be returned to head clinician when data capturing is completed for filing.

### **Ethics & Confidentiality**

Anonymity and confidentiality is maintained by the overall clinic consent. The UNHCHC patient files are subject to routine privacy legislation each respective patient's identity will be protected, Data capturing will take place at the UNHCHC site and files will not be copied or removed from their routine place of secure storage. The researcher and the head clinician at UNHCHC will be the only researchers who access the files accordingly.

Yours sincerely.

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Miss Zinhle Pearl Mdluli (21109951)-Researcher: 074 9624 928

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Dr. J. Ngobese-Ngubane (Supervisor) – 031 373 2484 (jabulilen@dut.ac.za)

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Dr. Madhu Maharaj (Co-supervisor) Telephone no: 031 373 2481  
(madhum@dut.ac.za)

## **Appendix B2 (Permission application letter to the Clinic Director)**

P O BOX 1339  
Tongaat 4400

Faculty of Health Sciences  
Homoeopathic Day Clinic Coordinator & Clinic Director  
P.O. BOX 1334  
Durban  
4000

Dear Dr Nienaber and Dr Naude

### **Permission Application Letter to use the Ukuba Nesibindi Homoeopathic Community Health Centre (UNHCHC)**

Thank you for reading this letter. My name is Miss Zinhle Pearl Mdluli (21109951). I am currently registered for M. Tech. Homoeopathy and I am requesting to conduct my research study at Ukuba Nesibindi Homoeopathic Community Clinic (UNHCHC). The title of my study is: **A nine-year comparative retrospective clinical audit of a homoeopathic community satellite clinic Ukuba Nesibindi Homoeopathic Community Health Centre.**

**Outline of the Procedures:** A log book with all the cases from the clinic will be used to select all the patients that were seen at the clinic from July 2008- July 2017 at UNHCHC. Only the files that meet inclusion criteria as stated in the PG2 document. Data capturing will take place at this site under the supervision of head clinician. Will not be removed from the clinic and they shall be returned to head clinician when data capturing is completed for filing.

### **Ethics & Confidentiality**

Anonymity and confidentiality is maintained by the overall clinic consent. The UNHCHC patient files are subject to routine privacy legislation each respective patient's identity will be protected, Data capturing will take place at the UNHCHC site and files will not be copied or

removed from their routine place of secure storage. The researcher and the head clinician at UNHCHC will be the only researchers who access the files accordingly.

Yours sincerely.

---

Miss Zinhle Pearl Mdluli (21109951)-Researcher: 074 9624 928

---

Dr. J. Ngobese-Ngubane (Supervisor) – 031 373 2484 (jabulilen@dut.ac.za)

---

Dr. Madhu Maharaj (Co-supervisor) Telephone no: 031 373 2481  
(madhum@dut.ac.za)

## Appendix C (Permission application letter to Dr. Smillie)

P O BOX 1339  
Tongaat 4400

Faculty of Health Science: Head of Department  
Homoeopathic Department  
P.O. BOX 1334  
Durban  
4000

Dear Dr Smillie

### **Permission Application Letter to use data collection sheet**

Thank you for reading this letter. My name is Miss Zinhle Pearl Mdluli (21109951). I am currently registered for M. Tech. Homoeopathy and I am requesting to please use the data collection sheet that you used for your research in 2010 for the research study that you conducted at **UKUBA NESIBINDI HOMOEOPATHIC COMMUNITY HEALTH CENTRE**. Titled: **A clinical audit of the Durban University of Technology Homoeopathic Satellite clinic established at Ukuba Nesibindi.**

I am conducting a comparative study at Ukuba Nesibindi. The title of the study is: **A nine-year comparative retrospective clinical audit of a homoeopathic community satellite clinic Ukuba Nesibindi Homoeopathic Community Health Centre**. The aim of this study is to compare the results obtained in this study to results that was obtained in 2010.

Thank you for your time.

Yours sincerely

Miss Zinhle Pearl Mdluli (21109951)-Researcher: 074 9624 928  
([zinhlepearlmdluli@gmail.com](mailto:zinhlepearlmdluli@gmail.com))

Dr. J. Ngobese-Ngubane (Supervisor) – 031 373 2484 ([jabulilen@dut.ac.za](mailto:jabulilen@dut.ac.za))

Dr. Madhu Maharaj (Co-supervisor) Telephone no: 031 373 2481  
([madhum@dut.ac.za](mailto:madhum@dut.ac.za))

## Appendix D (Data collection sheet)

### DATA COLLECTION SHEET

<b>1. File Number</b>			
<b>1.1 Gender</b>			
	Male		
	Female		
<b>1.2 Race:</b>			
	White		
	African		
	Indian		
	Coloured		
	Other		
<b>1.3 Age:</b>			
	0-18 years		
	18-24 years		
	25-39 years		
	40-64 years		
	65 years and above		
<b>1.4 Employment:</b>			
	Employed		
	Un-Employed		
<b>1.5 Year of First Consultation at the Clinic</b>			
<b>1.6 Number of follow ups</b>			
	0		
	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	more than 10 (specify)		
<b>1.7 Clinical Diagnosis including date of diagnosis</b>			
	1      Date	7      Date	
	2      Date	8      Date	
	3      Date	9      Date	
	4      Date	10      Date	

