A retrospective chart review of disease prevalence in patients attending Homoeopathic Health Centres within the eThekwini Health District.

By

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THIS IS DEDICATED TO MY MOTHER ROSEMARY; WITHOUT HER UNCONDITIONAL LOVE AND SUPPORT I WOULD NOT HAVE BEEN ABLE TO ACCOMPLISH MY LIFE GOALS.

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ABSTRACT

Introduction

The Durban University of Technology (DUT) has four Homoeopathic satellite health centres operated by the Department of Homoeopathy. This study analysed three of the satellite health centres, namely Ukuba Nesibindi Homoeopathic Health Centre located within Warwick triangle within the central Durban area, Kenneth Gardens Homoeopathic Health Centre located within a municipal low-cost housing estate within the Umbilo area and Cato Ridge Homoeopathic Health Centre located within the Mkhizwana village near Cato Ridge. The fourth health centre, Redhill Homoeopathic Health Centre, was excluded from the study due to it not meeting all aspects of the inclusion criteria for the study. This descriptive and retrospective study aimed to determine patient demographics and disease prevalence at each homoeopathic health centre which could assist in better tailoring of patient care, student education and improve stocking of dispensaries. Data was collected from all initial patient files for the year of 2016.

Methodology

The research was a retrospective design by means of a clinical chart review of disease prevalence of the three Homoeopathic satellite health centres of DUT located within the eThekwini district. The initial visit for each patient at each centre for 2016 was examined and the disease prevalence recorded via ICD 10 codes, along with statistically relevant information such as age, gender, ethnicity, vital signs, glucose and urine dipstick analysis. Once disease prevalence and demographic data had been recorded at each centre, the data was analysed using Microsoft excel and SPSS version 24 and submitted to a statistician to track trends within each centre using descriptive statistics.

Results

A total of 828 files were analysed between the three centres of which 638 were at Ukuba Nesibindi Homoeopathic Health Centre (UNHHC), 79 at Kenneth Gardens Homoeopathic Health Centre (KGHHC) and 111 at Cato Ridge Health Centre (CRHHC). The overall disease prevalence at each Homoeopathic health centre centred on respiratory diseases, all three centres experienced a high incidence of influenza and arthritis.

A total of 638 files were recorded at UNHHC. The top five recoded diseases at UNHHC were influenza, arthritis (unspecified), primary hypertension, dermatitis (unspecified) and tension type headache. The UNHHC population was predominantly female (71.5%) and African (98.1%) With an average age of 41.3 years.

A total of 79 files for KGHHC were recorded. The top five recorded diseases at KGHCC were influenza, atopic dermatitis, dermatitis (unspecified), furuncle/boil mono arthritis (unspecified). The patients at KGHHC had an average age of 36.05 years; the KGHCC population was predominantly female (63.3%) and African (88.6%). White and Indian patients were at 7.6% and 2.5% respectively. 1.3% of patients did not indicate which race group they belong to.

A total of 111 files for CRHHC were recorded. The top five recorded diseases at CRHCC were arthritis-unspecified, influenza, cough, primary hypertension chronic bronchitis, rheumatoid arthritis. The numbers for CRHHC indicated six diseases in the top disease prevalence due to both chronic bronchitis and rheumatoid arthritis sharing fifth place in CRHCC's prevalence. The CRHCC population was predominantly female (63.3%) and exclusively African (100%) with an average age of 45.71 years.

Conclusion

Influenza was commonly treated amongst all three Homoeopathic healthcare centres in 2016 and was the disease most prevalent at both Kenneth Gardens and Ukuba Nesibindi. Influenza ranked second highest at Cato Ridge. Various forms of arthritis were commonly seen amongst the three Homoeopathic health centres. Cato Ridge was unique in that dermatological complaints did not feature in the top prevalence like the other homoeopathic health centres. Most patients seen across the Homoeopathic health centres are African women. The three Homoeopathic health centres showed similarities in disease prevalence as respiratory and musculoskeletal complaints featured strongly in each homoeopathic healthcare centre's disease prevalence. The above information can be utilised by the DUT Department of homeopathy in order to provide better patient care by targeted training to students, by assessing each clinics unique and individual prevalence.

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DEFINITION OF TERMS

AHPCSA:-

The Allied Health Professions Council of South Africa (AHPCSA) is a statutory health body established in terms of the Allied Health Professions Act, 63 of 1982 (the Act) in order to control all allied health professions, (AHSPCA 2018).

Disease prevalence:-

A statistical concept referring to the number of cases of a disease in a given population.

Homoeopathy:-

Homoeopathy is a therapeutic medical system, which is based on the observation that substances which are capable of causing diseases of the mind or body in healthy people can be used in the diluted form as remedies to treat the similar disorder in someone who is ill (HSA 2016).

HSA:-

The Homoeopathic Association of South Africa (HSA) is a voluntary association recognised by the Allied Health Professions Council of South Africa (AHPCSA) as the official representative of the homoeopathic profession in South Africa.

ICD 10:-

The International Classification of Diseases (ICD) is the coding system used to classify diseases system utilised in order to identify health trends and statistics including the monitoring of the incidence and prevalence of diseases (WHO 2018).

WHO:-

The organisation who is the Directing authority on international health within the United Nations (WHO 2018).

Abbreviations

General:

Ayush: Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy

DUT: Durban University of Technology

KZN: Kwa Zulu Natal

HSA: Homoeopathic association of South Africa

HIV: Human Immunodeficiency Virus

TB: Tuberculosis

WHO: World Health Organisation

CDC: Centre for Disease Control

Homoeopathic Health centres:

UNHHC: Ukuba Nesbindi Homoeopathic Health Centre

KGHHC: Kenneth Gardens Homoeopathic Health Centre

CRHHC: Cato Ridge Homoeopathic Health Centre

RHHC: Redhill Homoeopathic Health Centre

CHAPTER 1: OVERVIEW

1.1 INTRODUCTION

The Harvard School of Public Health defines disease prevalence as the total number of individuals within a population that have a disease within a given time (HSPH 2018). Disease prevalence is typically utilised in order to assess the burden of disease on a given population and to evaluate the need for health services. It is also useful in assessing, comparing and tracking trends in prevalence in different populations (Pearce 2000).

The worldwide disease trend towards increasing numbers of non-communicable disease and decreasing numbers of communicable disease is contrasted by most countries within the African region. South Africa however seems to be an exception as non-communicable diseases are currently predominating the cause of death within recent data acquired from the World Health Organisation's global health observatory (2016).

The contrast South Africa casts in comparison to the other African regions shows that improvements have been made in terms of communicable disease treatment, however non-communicable diseases often associated with "diseases of lifestyle" is currently not being managed correctly due to greater access to processed foods, stress and decreases in physical activity.

The table below lists and compares the top five causes of natural death for the year of 2016 amongst the worldwide average, the African region, the South African average and the average for Kwa Zulu, Natal.

Table 1.1: Top Worldwide causes of death for the year of 2016 according to the worldwide average, the WHO African region, The South African region and Kwa Zulu, Natal.

Rank	Top Worldwide cause of Death (WHO 2016)	Top Cause of Death African Region (WHO 2016)	Top cause of Death South Africa (Statistics SA 2016)	Top cause of death Kwa Zulu, Natal (Statistics SA 2016)
1	Ischaemic Heart Disease	Lower Respiratory Infections	Tuberculosis	Tuberculosis
2	Stroke	HIV/AIDS	Diabetes Mellitus	Other forms of Heart Disease
3	COPD	Diarrhoeal Diseases	Other forms of Heart Disease	Diabetes Mellitus
4	Lower Respiratory Infections	Ischaemic Heart Disease	Cerebrovascular Diseases)	Human Immunodeficiency virus
5	Alzheimer's & Dementias	Malaria	Human Immunodeficiency Virus	Cerebrovascular Diseases (I60-I69)

Non-communicable diseases may predominate in South Africa, however tuberculosis (TB) and human immunodeficiency virus (HIV) are consistently found within the top five causes of death for the country.

Tuberculosis and HIV rates within South Africa are still remarkably high with tuberculosis contributing to one of the highest causes of communicable mortality in the country (WHO 2016). The Kwa Zulu, Natal province in which the Homoeopathic health care centres are located has the highest rate of death from tuberculosis and HIV out of all the provinces within South Africa. (Statistics South Africa 2016).

Information with regards to prevalence is vital in order to provide further insight and information regarding trends within the country and may aid in the fight against disease.

One of the useful tools as mentioned above is a retrospective chart review. This study utilised a retrospective chart review in order to provide further insight into disease prevalence within the Homoeopathic health centres of the Durban University of Technology.

1.2 RATIONALE FOR THE STUDY

The study determined the disease prevalence amongst the Homoeopathic health centres of the Durban University of Technology at the various locations and determined the differences according to the patient population seen at each. The information gathered provided beneficial data in terms of disease prevalence in each of the Homoeopathic health centres as well as their variances according to the different communities they serve.

The data collected and analysed may be compared to the disease trends in conventional medicine and information may be utilised by the DUT Homoeopathic department in order to better tailor care and student training. This study expands knowledge and creates focus areas for further research.

The primary health system in South Africa is under resourced and access to healthcare and quality of healthcare needs to be improved. The research can enable health centres managed by the Homoeopathic department to improve training of students in terms of knowledge of disease prevalence and provide better targeted healthcare which would benefit both the student and the patient population being served.

1.3 AIM OF THE STUDY

The retrospective study aimed to analyse and document the top five diseases which presented to the DUT Homoeopathic health centres for the year of 2016.

1.4 OBJECTIVES

The objectives of the study were to:

1.4.1 Identify the disease prevalence at each Homoeopathic health centre for the year of 2016.

1.4.2 Identify the top five diseases seen at each individual Homoeopathic health centre for the year of 2016.

1.4.3 Identify potential subsequent trends in terms of location, age and ethnicity versus disease prevalence.

1.4.4 Compare trends amongst the health care centres and identify similarities and differences in disease prevalence and demographics.

1.5 LIMITATIONS

The study focused exclusively on diagnostic trends for the year of 2016, and as such only represents 2016. Further more the study only included files which met this study's inclusion criteria, therefore it left a smaller than desired study sample.

All files from the Red Hill Homoeopathic Health Centre failed the inclusion criteria, due to matters of patient consent for research and as such was not included in the study.

CHAPTER TWO: LITERATURE REVIEW

2.1 INTRODUCTION

This chapter intends to provide an overview of the available research on the study topic. Literature reviewed will compare different studies concerning local and international trends in primary healthcare and provide background on the four Homoeopathic health centres being analysed.

Studies regarding disease prevalence at the DUT Homoeopathic health centres are currently lacking. Clinical audits of UNHHC and KGHHC and CRHHC have been carried out which have indicated towards disease prevalence, but no formal study focused on the disease prevalence had been carried out in terms of retrospective chart review.

A retrospective chart review is defined as a study design whereby a study utilises pre-recorded patient data in order to answer a research question (Worster A, Haines T.2004). The retrospective chart review is a popular methodology within the medical field and is often utilised to generate information which may better direct future prospective studies (Gearing RE, Mian IA, Barber J, Ickowicz A.2006).

The study sought to identify top disease prevalence and trends at each Homoeopathic Health Centre of the Durban University of Technology with the use of a retrospective chart review methodology.

2.2 DISEASE PREVALENCE INTERNATIONALLY

The data obtained by the WHO in terms of cause of mortality for the year of 2016 sheds an interesting light onto contrasts and variances in causality. The worldwide cause of death data for the year of 2016 showed 71 percent of all deaths were of non-communicable origin with communicable, maternal, neonatal and nutritional conditions collectively only responsible for 20 percent of global deaths in 2016 with injuries representing a mere 9 percent. Table 2.1 below displays the global top cause of mortality according to the WHO for 2016.

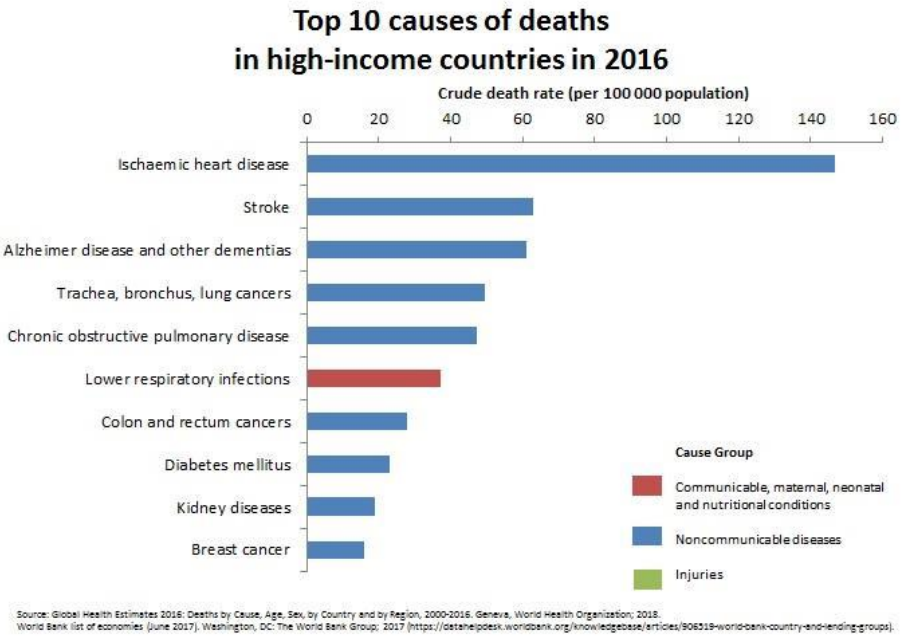
Table 2.1:Top global cause of mortality for 2016

Rank	2016 Top Worldwide Cause of Death
1	Ischaemic Heart Disease
2	Stroke
3	COPD
4	Lower Respiratory Infections
5	Alzheimer's & Dementias

Ischemic heart disease, stroke, lower respiratory infections and chronic obstructive pulmonary disease have persistently remained in the top global mortality over the past decade (WHO 2015). All of the top five global causes of mortality for 2016 fall under non-communicable diseases as per the trend. The global deaths due to diabetes grew 1.8 percent in 2015 and deaths due to dementias have doubled between 2000-2015, again showing the gradual trend towards non-communicable disease progression. Globally 940 000 people died of HIV related disease and 1 300 000 of tubercular disease in 2017. Global studies show that the male mortality rate is higher than that of females which is seen throughout all the WHO regions.

The figures 2.1 and 2.2 below taken from the WHO represent the top global mortality cause for 2016 according to income status in order to display the contrast.

Figure 2.1: Top 10 global mortality for high income countries for 2016



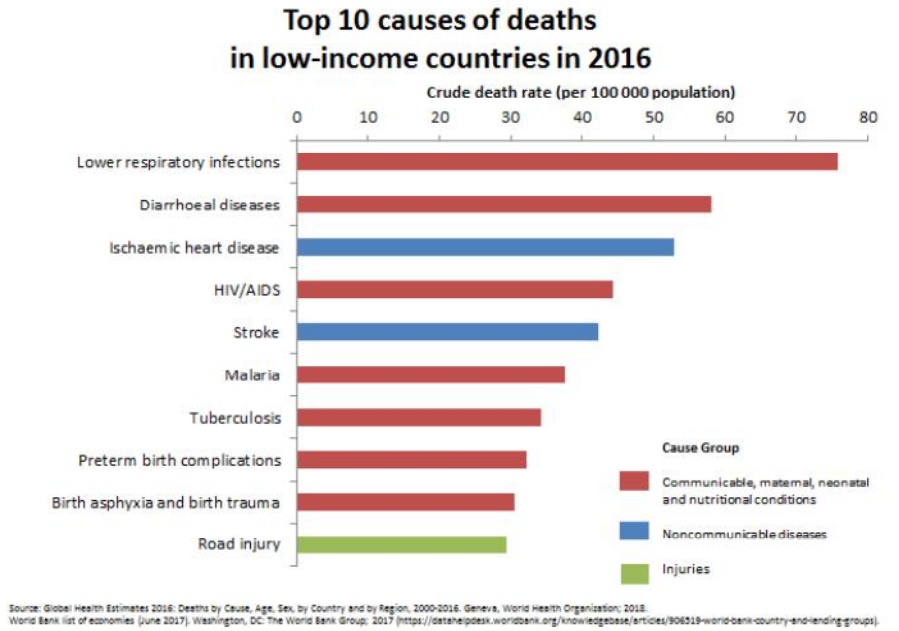


Figure 2.2 top 10 mortality for low income countries (reference below image) (WHO 2016)

The top global mortality for high income and lower income countries contrast sharply with one another as it's clear that communicable diseases predominate the lower income countries, whereas the high-income countries have a predominance of non-communicable mortality for the year of 2016.

2.3 AFRICAN DISEASE PREVALENCE

The WHO African region is in contrast to worldwide average in that 56 percent of deaths in 2016 for the WHO African region were due to communicable, maternal, perinatal or nutritional conditions (WHO 2018).

The 56 percent predominance has displayed a decrease from the figure of 70 percent recorded for the year of 2000 however the African region is the only WHO region where these conditions still predominate.

Non-African WHO regions non-communicable diseases are increasing and tended to predominate the cause of death for the year of 2016 displaying the worldwide progression towards non-communicable diseases.

The African region is in line with the trend displayed by figure 2.1 above for lower income countries to have a more dominant communicable disease profile.

The top five causes of death for the WHO African region, in descending order for the year of 2016, were lower respiratory tract infections, HIV/Aids, diarrhoeal disease, ischaemic heart disease and malaria. The WHO top five cause of death for 2016 contrasts sharply with the proportions of worldwide top five causes of death that are ischaemic heart disease, stroke, chronic obstructive pulmonary disease, lower respiratory infections and Alzheimer's see the table below for comparison.

Table 2.2: Top five causes of mortality worldwide vs the WHO African region for the year of 2016 (WHO 2014).

Rank	2016 Top Worldwide Cause of Death	2016 Top Cause of Death WHO African Region
1	Ischaemic Heart Disease	Lower-Respiratory Infections
2	Stroke	HIV/AIDS
3	COPD	Diarrhoeal Diseases
4	Lower Respiratory Infections	Ischaemic Heart Disease
5	Alzheimer's & Dementias	Malaria

Africa in 2017 contributed to the majority of global HIV related mortality with 670 000/930 000(72 percent) of deaths located within the WHO African region. Africa was the 2nd largest contributor to death due to tuberculosis (exclusive of HIV) for the year of 2017 with 32.5 percent of global deaths located within the WHO African region. Male mortality for the African region was significantly higher than females for 2016 which is in line with the global trend.

The data above highlights the fact that Africa's healthcare systems have yet to control communicable diseases and that further development is required to reduce the high incidence and predominance of communicable, prenatal, maternal and nutritional disease within Africa.

2.4 CURRENT DISEASE PREVALENCE IN SOUTH AFRICA

South Africa's top mortality causation for 2016 diverges from what was indicated by the WHO as the trend for African countries to have a predominant instance of communicable, prenatal, maternal and nutritional diseases. A report done by statistics South Africa for the year of 2016 noted a shift towards non-communicable diseases accounting for 57.4 percent of deaths with communicable diseases accounting for 31.3 percent with the remainder encompassing unnatural deaths (statistics South Africa 2016). The South African cause of death still contrasts sharply with the world average of 20 percent for communicable causes of death (WHO 2017). Tuberculosis and HIV rates within South Africa are still of great concern even though the Government has protocols in place. A decrease has been shown in tuberculosis, but HIV related Mortality has increased (DOH 2013). South Africa is one of the countries with the highest burden of tuberculosis in the world with the World Health Organisation (WHO) statistics giving an estimated incidence of 454,000 cases of active tuberculosis in 2015 (WHO 2016). About 0.8 percent of the population of about 54 million develop active tuberculosis disease each year which shows the burden and grip tuberculosis has on the South African healthcare system.

The South African Department of Health (DOH) acknowledges the need to further develop the existing public healthcare system to meet demands of an ever-growing population in order to provide adequate healthcare (Department of Health 2012). The table below lists and ranks the top causes of mortality in South Africa for the year of 2016 which provides insight into the prevalence and impact of diseases on the South African population.

Table 2.2: Top ten causes of mortality in South Africa for the year of 2016 (Statistics South Africa 2016).

Disease cause of death	**Rank**	**%**
Tuberculosis (A15-A19)	**1**	**6.5**
Diabetes mellitus (E10-E14)	**2**	**5.5**
Other forms of heart disease (I30-I52	**3**	**5.1**
Cerebrovascular diseases (I60-I69)	**4**	**5.1**
Human immunodeficiency virus [HIV] disease (B20-B24)	**5**	**4.8**
Hypertensive diseases (I10-I15)	6	4.4
Influenza and pneumonia (J09-J18)	7	4.3
Other viral diseases (B25-B34	8	3.6
Ischaemic heart diseases (I20-I25	9	2.8
Chronic lower respiratory diseases (J40-J47)	10	2.8

The top five causes of mortality in South Africa for the year of 2016 were tuberculosis, diabetes mellitus, and other forms of heart disease, cerebrovascular disease and HIV. Diabetes, heart disease and cerebrovascular disease being of non-communicable classification demonstrated the prevalence and trend towards dominance of non-communicable disease in disease mortality.

Cardiovascular causes and diabetes mellitus are present strongly with around 3.8 million people estimated to be living with diabetes as of 2015 (Statistics SA 2015). Cardiovascular disease is estimated to be responsible for approximately 17.3 percent of deaths within South Africa which lays a heavy burden on South Africa's healthcare system as cardiovascular disease is also one of the leading causes of disability (WHO 2014).

The National Health Insurance System has thus been developed by the DOH as a financing system in order to create better access to healthcare and aid with financing of healthcare (Department of Health 2012). The majority of Medical professionals do not stay within the public system due to the fact that facilities are severely under resourced, under staffed as well as it is possible to acquire greater remuneration in the private sector. The NHI seeks to promote the public sector and increase the number of PR practitioners within the system. Homeopathy currently has not been included in the NHI plan.

According to the Centre For Disease Control South Africa (CDC 2011) the public-sector cares for approximately 40 million people as opposed to about 6 million in the private sector, which means a very heavy workload and a severely under resourced public healthcare system. South African access to healthcare is a concern, given the role of poor access in continuing poverty and inequality (McLaren et al. 2014)

Distance poses a barrier to South Africans wishing to access healthcare as there is an insufficient distribution of health-related infrastructure, inadequate resources and an increased demand for medical supplies (McLaren et al. 2014).

According to Act No. 61, 2003 the National Health Act, all South Africans have the right of access to health services. Research done by the Department of Health of South Africa (2000) has indicated that access to primary healthcare was improving due to increasing the number of primary healthcare Homoeopathic health centres, but the report states further improvement to access to healthcare is still required.

2.5 DISEASE PREVALENCE WITHIN KWA ZULU, NATAL

The Kwa Zulu, Natal province is located in the south-east of South Africa; it borders the Eastern Cape, Free State and Mpumalanga provinces and is externally bordered by the countries of Lesotho, Swaziland and Mozambique.

The Kwa Zulu, Natal province has the highest mortality rates of tuberculosis and HIV of all the provinces within South Africa (DOH 2016). The top five causes of death for the year of 2016 are listed in the table below which bear an indication of the impact of tuberculosis again ranking as the top cause of mortality.

Table 2.3: Top five causes of disease mortality for 2016 for the Kwa Zulu Natal province.

Disease	Rank	%
Tuberculosis (A15-A19)	**1**	7.6
Other forms of heart disease (I30-I52	**2**	7.4
Diabetes mellitus (E10-E14)	**3**	6.6
Human immunodeficiency virus [HIV] disease (B20-B24)	**4**	6.3
Cerebrovascular diseases (I60-I69)	**5**	6.0

Reviewing the top causes of mortality in Kwa Zulu, Natal in comparison to the remainder of South Africa shows diabetes moving down one rank and other forms of heart disease moving up one rank, replacing diabetes as the second most common cause of mortality within the province.

HIV moves up one rank to replace cerebrovascular disease as the fourth top cause of death within the province. KZN has the second highest incidence of tuberculosis for all provinces for the year of 2015. However Kwa Zulu, Natal had

the highest mortality rate from tuberculosis of all the provinces in 2014(DHB 2015). Kwa Zulu, Natal has a population of approximately 11,074,800 as of mid-year 2017 (statistics SA 2016).

2.6 A BRIEF HISTORY OF SOUTH AFRICA AND ITS CONTRIBUTING FACTORS TO DISEASE

Little seems to be known about disease prevalence during the early eras, but tuberculosis and malaria have been described in literature. Later in South African history an era known as apartheid ensued from 1948 until 1990 between South Africa's white population and its ethnic population which resulted in the segregation of white and non-white races. This resulted in displacement and relocation of non-whites to controlled densely populated areas, hence resulting in poor and disadvantaged living areas with poor access to healthcare and inequality.

According to the United Nations (1977) the two main causalities of early death in African individuals were nutritional deficiency and communicable diseases whereas there was little incidence of malnutrition in whites. The inequality that existed during apartheid resulted in increases in diseases such as tuberculosis, typhoid, measles, tetanus, polio, viral hepatitis, diphtheria and pertussis which were not uncommon within the malnourished African population during apartheid.

The rates of infant mortality in non-whites was far higher than whites during this period (UN 1975). The inequality created by apartheid has shaped South Africa's current healthcare while inequalities in living conditions, access to sanitation and nutritional status may have improved.

2.7 COMPLEMENTARY MEDICINES INTERNATIONALLY

The WHO has identified the potential for complementary and traditional medicines to improve health, particularly the aspect of service delivery within countries, and has developed the WHO traditional medicine strategy for the year of 2014 - 2023 in order to further review its potential (WHO 2014).

The WHO Traditional Medicine strategy 2014 - 2023 was developed for the reason that as the continued uptake of traditional and complementary medicine continually grows so does the impact on economic development of countries. The potential for the use of traditional and complementary for the purposes of self-health promotion and disease prevention grows along the increased impact on economic development which may in turn reduce healthcare costs (WHO 2014).

Traditional and complementary medicines are a worldwide phenomenon and practices and products from various regions are used worldwide to compliment local health services (WHO 2014). The potential role of traditional medicines and complementary medicines are therefore apparent and holds potential for aiding mainstream healthcare practices in the fight against disease, but the matters require further review in order to ascertain to what extent this is possible.

The value of traditional and complementary medicines has been acknowledged in several countries. The country of India developed the practices of Ayurveda, Yoga & Naturopathy, Unani Siddha and Homoeopathy (AYUSH) in 2014. The purpose of AYUSH is ensure development and propagation of the systems under its umbrella with particular emphasis on the development of education and research in Ayurveda, yoga & naturopathy, Unani Siddha and Homoeopathy (AYUSH 2017).

The countries of China, Switzerland and Korea have incorporated and cover traditional and complementary medicines into their national health insurances with Chinese and Korean traditional practitioners practicing alongside allopathic practitioners (WHO 2014).

2.8 COMPLEMENTARY MEDICINES SOUTH AFRICA

The current situation (2018) in South Africa with regards to complementary and traditional medicine is quite different. The South African government has recognised traditional and complementary medicines, but it is currently only made available to the public at large via private practices and institutions and has not been mentioned as part of the national health insurance plan (DOH 2015).

The restriction of traditional and complementary medicines to the private sector restricts their access bracket. The restriction of traditional and complementary medicines to the private sector may be preventing benefits such as promoting health, aiding in health service delivery and reducing the financial burden on South Africa's healthcare system, as was identified as a possible benefit by the WHO in their 2014 traditional and complementary strategy report (WHO 2014).

Traditional medicine is widely used across the Kwa Zulu, Natal province due to cultural beliefs, limited access to healthcare and relative low cost. The population within Kwa Zulu, Natal is relatively high and as such so is the burden on South Africa's healthcare system; traditional and complementary medicines have the potential to play a role in alleviating the pressure on the system.

2.9 THE ROLE OF HOMOEOPATHY

Homoeopathy is a therapeutic medical system, which is based on the observation that substances which are capable of causing diseases of the mind or body in healthy people can be used in the diluted form as remedies to treat the similar disorder in someone who is ill. This concept is known in the Homoeopathic profession as the Law of Similars which is also more crudely expressed as "Let Likes be Cured by Likes".

The word Homoeopathy is derived from the Greek words homoios, meaning like, and pathos, meaning suffering, referring essentially "Same suffering" which refers to the basic concept of the Law of Similars (HSA 2016). Homoeopathy is a safe and effective medical system with which any medical condition in any human being of any age has the potential to be treated. It can be measured by the world-wide support and interest of patients and health professionals (HSA 2012).

According to the British Homoeopathic Association (2008) “Homoeopathy has been integrated into the healthcare systems of many European countries including France, Germany, the Netherlands and Italy”, indicating the possible use of Homoeopathy as advantageous to countries as part of their healthcare. Homoeopathy within Europe is widely used and is currently practised by three categories of practitioners: Homoeopaths who have received a full training in homoeopathy as a discipline; Medical doctors and other statutory regulated healthcare practitioners i.e. nurses, midwives, dentists, whose postgraduate training in Homoeopathy varies from short introductory courses to a full training in Homoeopathy; and other practitioners who utilise a limited range of Homoeopathic remedies alongside other therapeutic options (ECCH, 2015).

The aforementioned is in contrast to South Africa where to practice lawfully as a Homoeopath, a 5-year Homoeopathic qualification – including medical studies – needs to be completed. Additionally the practitioner must be registered with the AHPCSA. As such, unregistered practice constitutes a criminal offence in the eyes of the law in South Africa. The Indian government recognizes Homoeopathy as one of its national systems of medicine; it has established AYUSH under the Ministry of Health & Family Welfare in order to further its listed professions (AYUSH 2017). Homoeopathy as a profession has the potential like other traditional and complementary medicines to help alleviate the load on the public healthcare system however, the standard of training and education needs to be maintained at an adequate level in order to facilitate proper care.

Currently within South Africa there are only two institutions available in which a person can study an accredited Homoeopathic course, The Durban University of Technology and the Johannesburg University (HSA 2016).

2.10 THE REGULATION OF HOMOEOPATHY IN SOUTH AFRICA

The Health Professions Council of South Africa (HPCSA) and the Allied Health Professions Council of South Africa (AHPCSA) are the regulatory bodies within South Africa for allopathic and complementary medicine respectively. Complimentary healthcare services are available exclusively in the private sector and are not included within the public healthcare sector.

According to the Allied Health Professions Act 63 (1982) a registered Homeopath may diagnose and treat physical and mental disease, illness or deficiencies in humans. Homeopaths may administer, prescribe, dispense or compound medicine for such diseases, illness or deficiencies in humans. The Homoeopathic Association of South Africa (HSA) is a voluntary association recognised by the Allied Health Professions Council of South Africa (AHPCSA) as the official representative of the Homoeopathic profession in South Africa (HSA 2017).

Registered Homeopaths within South Africa are permitted to diagnose and treat physical and mental ailments as well as utilise diagnostic tests such as X-rays and blood panels (HSA 2015). Homoeopathy therefore could potentially have a role in primary healthcare, but this requires further investigation in order to determine if it could. The comprehensive nature of training of Homeopaths in South Africa allows for graduates to work in the private sector, industrial sector or in the public sector within multi-disciplinary practices.

It is necessary for Homeopaths to have in-depth knowledge of the ICD 10 coding reference system in order to properly document diagnosis as well as be able to claim back from medical aids for their services which have been included and paid for by the medical aid in question.

2.11 THE HOMOEOPATHIC DEPARTMENT OF THE DURBAN UNIVERSITY OF TECHNOLOGY

The Durban University of Technology was formed as a result of the merging of ML Sultan and Technicon Natal in April 2002 (DUT 2018). The DUT Homoeopathic department resides under the Faculty of Health Sciences of the Durban University of Technology and offers a single programme in Homoeopathy (DUT handbook 2018).

The Homoeopathic qualification in South Africa is available via a 4-year bachelors and a twoyear master's degree Course available at the Durban University of Technology or the Johannesburg University of Technology (H.S.A.2016). The course involves basic medical sciences such as anatomy, physiology, biology, pharmacology and diagnostics. The last two years the student undergoes a Masters qualification.

The Durban University of Technology has a Homoeopathic health centre located on the premises which is open to students and to the public (DUT 2015).'The health centre is overseen by lecturers and clinicians by as well as final year Homoeopathic students who service the health centre on a rotational basis as part of their studies (DUT 2015).

The Durban University of Technology has four Homoeopathic satellite health centres operated by the Homoeopathic department. Each health centre is situated within a community and provides free health consultations and Homoeopathic healthcare to the surrounding communities within the eThekwini district (DUT 2017).

The four Homoeopathic satellite health centres are located within different areas and therefore should consult with patients with various diseases.

The four Homoeopathic satellite health centres are Kenneth Gardens Homoeopathic Health Centre, Redhill Homoeopathic Health Centre, Ukuba Nesbindi Homoeopathic Health Centre and Cato Ridge Homoeopathic Health Centre.

A total of 3362 patients were seen for the year of 2016 by the DUT Homoeopathic department, of which 1520 where initial patients and 1843 were follow up patients as seen in figure 2.3 below.

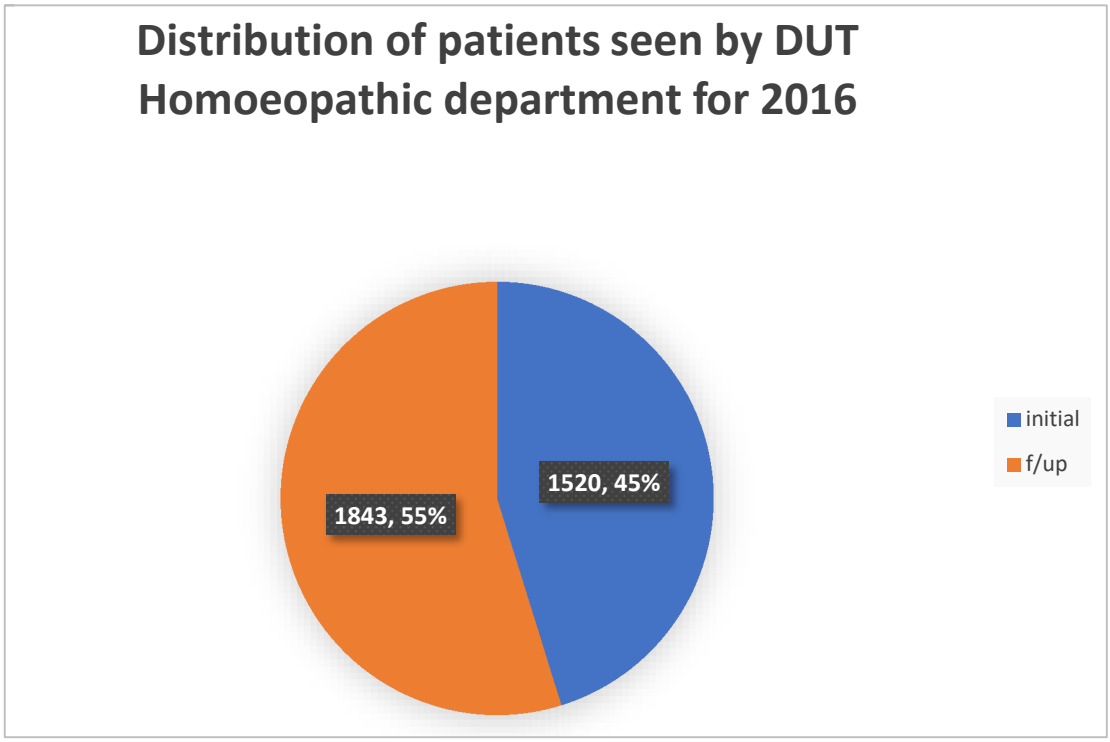


Figure 2.3 the distribution of initial and follow up consultations across all homoeopathic health centres

Figure 2.4 below displays the distribution of initial and follow up consultations across each health centre for the year of 2016 displaying the variance between each health centre.

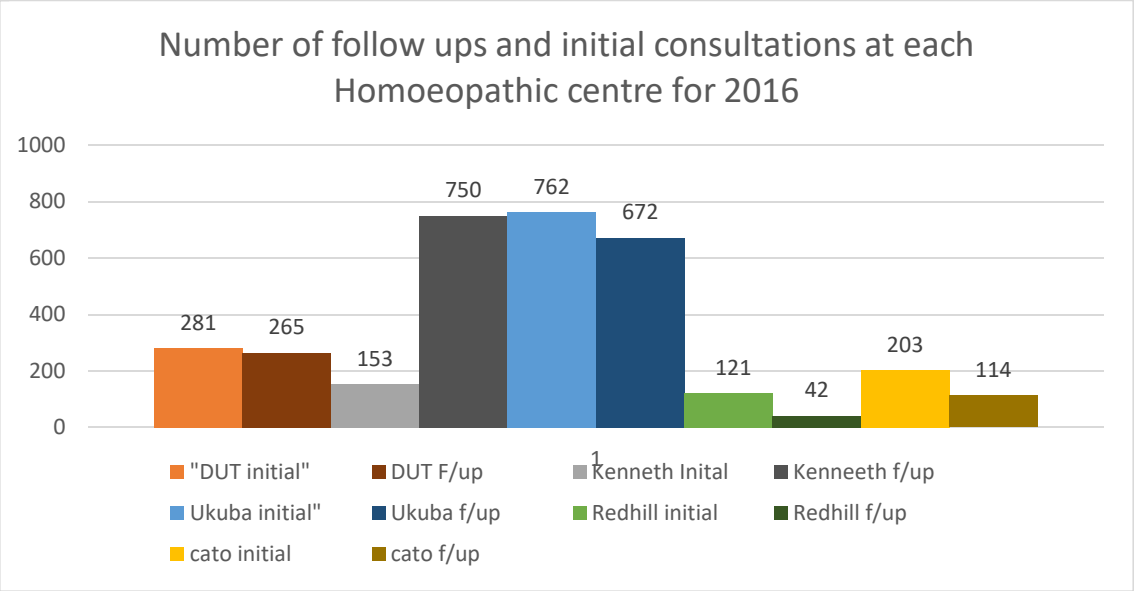


FIGURE 2.4 The number of follow up and initial consultations for each homoeopathic health centre for the year of 2016.

2.11.1 Ukuba Nesibindi Homoeopathic Community Health Centre:

The Ukuba Nesibindi Homoeopathic Community Health Centre was the first satellite health centre to be opened by the DUT Homoeopathic department in 2004. This Homoeopathic health centre is located within the Warwick junction Durban area which is classified as a disadvantaged area with a high prevalence of crime comprising of mostly low-cost housing.

The health centre serves as a free primary healthcare facility (Dube 2015). The health centre is unique in that it is located within a Lifeline initiative building that offers community outreach programs and counselling (Dube 2015). The health centre saw a total of 762 initial patients and 672 follow up patients for the year of 2016 (refer to figure 2.3).

A study at the Ukuba Nesibindi Homoeopathic Community Health Centre found that a total of 862 patients were seen between 2004 and 2008 of which the majority were African females between the ages of 40 and 64 who were

unemployed (Smillie 2010). The study conducted by Smillie in 2010 for the years 2004 to 2008 determined that the distribution of disease was as follows:

- Infectious and parasitic diseases 29%
- Cardiovascular disorders 21%
- Gastrointestinal disorders 8%
- Psychological disorders, 9%
- Neurological disorders, 8%
- Dermatologic disorders, 11%
- other classifications making up the remainder of 45%

2.11.2 Kenneth Gardens Homoeopathic Community Health Centre:

The Kenneth Gardens Homoeopathic Community Health Centre was opened in 2012 in collaboration with the University of Kwa Zulu, Natal. The health centre is located within Kenneth Gardens' municipal housing estate in Umbilo, Durban, Kwa Zulu, Natal which houses 1500-1800 residents and provides cost free healthcare to the community (Love 2016).

The health centre saw a total of 153 initial patients and 750 follow up patients for the year of 2016 (figure 2.3). The live-in nature of Kenneth Gardens is likely the cause for the vast difference in initial versus follow up patient numbers for the health centre.

2.11.3 Redhill Homoeopathic Community Health Centre:

The Redhill Homoeopathic Community Health Centre is located within the Redhill area in Durban KZN. The eThekwini municipal clinic in which the Redhill Homoeopathic health centre resides is located within and serves an impoverished area. The Redhill Homoeopathic health centre is unique as it resides within a municipal clinic.

The Redhill health centre had to unfortunately be removed from the study due to not adhering to the inclusion criteria.

A study at the Redhill Homoeopathic Community Health Centre showed that the centre had a total of 1573 visits over a five-year period from 2010 to 2014; the majority of patients were African and female between the ages of 21 and 30 (Pramlall 2015). The Redhill health centre had a total of 121 initial patients and 41 follow up patients for the year of 2016.

2.11.4 Cato Ridge Homoeopathic Community Health Centre

The Cato Ridge Homoeopathic Community Health Centre is located within the Mkhizwana Village in rural Cato Ridge and serves the community along with Chiropractic and Nursing facilities. The Cato Ridge community has a high unemployment rate with many living below the poverty line, with poor access to sanitation and limited access to clean water and health (Taylor 2016).

A Report compiled at the Cato Ridge Homoeopathic Community Health Centre (2016) revealed that the health centre had a total of 764 patients between 14 April 2016 and 7 December 2016. Furthermore, the report stated that the community is largely impoverished and serves a community with restricted access to healthcare (Taylor 2016).

It could be assumed that the Homoeopathic health centres may see patients with ailments representative of Kwa Zulu, Natal's trend as they are located within the area. Therefore, the homoeopathic health centres have the potential to treat or, at a minimum, refer to other health professionals and direct patients towards the correct treatment avenues to acquire treatment.

2.12 THE ICD -10 CODING SYSTEM

The International Classification of Diseases (ICD) is the coding system used to classify diseases and is utilised by medical aids as a diagnostic reference tool. The coding system was created to standardise comparability in the collection, processing, classification, and presentation of mortality statistics and disease prevalence.

The reported conditions are allocated medical codes through the use of the classification structure and the selection and modification rules contained in the applicable revision of the ICD, published by the World Health Organization (WHO). The International Classification of Diseases (ICD) is revised from time to time to incorporate changes in medical knowledge and currently the tenth edition is under review (WHO 2017). The recording of ICD 10 codes in this study was vital in order to be able to acquire standardised and reliable disease records.

CHAPTER 3: METHODOLOGY

3.1 INTRODUCTION

This chapter contains details regarding the methods and design used in this research study. It includes information on the study design, the location of the study, the selection sample, the data collection tool, the data collection process, statistical methods that were used to analyse the resultant data as well as any ethical considerations.

3.2 AIMS

The study aimed to document and analyse trends among three Homoeopathic health centres (Ukuba Nesibindi, Kenneth Gardens and Cato Ridge) in terms of disease prevalence, while considering the different locations of each health centre for the year of 2016, looking at new patient files for the year of 2016 exclusively.

3.3 OBJECTIVES

- Identify the disease prevalence at each Homoeopathic health centre.
- Identify the top five diseases seen at each individual healthcare centre.
- Identify subsequent trends in terms of location vs. disease prevalence.
- Compare trends amongst the homoeopathic health centres to identify overlap and the role of Homoeopathy in such primary health settings.

3.4 THE RESEARCH TYPE AND DESIGN

The study was a cohort study of a retrospective design utilised in order to review the Homoeopathic health centres of the Durban University of Technology, which compared each Homoeopathic health centre, including only all first-time patients for the year of 2016 at each Homoeopathic satellite health centre (Ukuba Nesibindi, Kenneth Gardens and Cato Ridge Homoeopathic Community Health Centres).

The new patient files at each homoeopathic health centre for 2016 were examined and the disease prevalence recorded along with statistically relevant information such as age, sex, ethnicity, height, weight, vital signs and special exams (glucose and urine dipstick analysis). The data was entered into Microsoft Excel and SPSS version 24 in order to determine descriptive statistics such as percentages, frequency tables, pie charts and bar-charts. The Homoeopathic health centres were compared, and the data analysed in comparison.

3.5 STUDY LOCATION:

Data was collected at each Homoeopathic health centre:

- Ukuba Nesibindi Homoeopathic Health centre-located in Warwick Junction-Durban (DUT 2015).

- Kenneth Gardens Homoeopathic Health Centre-Kenneth Garden's municipal housing estate in Durban (DUT 2015).

- Cato Ridge Homoeopathic Health Centre-The Mkhizwana Village in Cato Ridge (DUT Cato Ridge Community Health Project Report 2016).

3.6 SELECTION OF THE RESEARCH SAMPLE AND POPULATION

The purpose of the study was to provide data regarding disease prevalence in order to contribute to future teaching and learning and to find new focus areas for research. Therefore, the sample comprising all new patients for the year of 2016 was sufficient.

3.7 INCLUSION CRITERIA

All first-time new patient files for the year of 2016 at each Homoeopathic health centre of the Durban University of Technology (Ukuba Nesibindi, Kenneth Gardens and Cato Ridge). All files contained the signed consent form for access to files for research purposes.

3.8 EXCLUSION CRITERIA

- All Incomplete files were excluded from the study. Incomplete files constitute as those that do not supply diagnosis ,ICD 10 and display a general lack of patient data.
- Files from years other than 2016.
- Patient follow-up consultations (as the study only took into account initial files).

3.9 DATA COLLECTION

Disease diagnosis and statistically relevant information was recorded for each selected file of the sample size at each Homoeopathic Health centre utilising a password protected Microsoft Excel spreadsheet for each Homoeopathic healthcare centre (see appendix A). Each new patient file was allocated a reference number to protect the identity of the patient. The following was recorded on the data capture sheet (appendix B):

- Diagnosis
- ICD-10 code

- Age
- Sex
- Ethnicity
- Vital signs
- Special exams (glucose and urine dipstick analysis). Data for the purposes of the study were collected via the patient files SOAPE notes in new patient files for the year of 2016.

3.10 ETHICAL CONSIDERATIONS

Protection of data and maintaining anonymity and privacy of patients was of utmost importance therefore all data collected was protected within a password protected excel spreadsheet.

Two capture sheets per health centre were created for the following purposes: a password protected Query sheet that contains patient names along with demographic criteria, which was only used in the event that the researcher was required to query or gather further information; a specific file and/or a data capture sheet where Patients were allocated a patient reference number when data was recorded in order to maintain anonymity of the patients.

No names of patients or identifiable personal details were recorded on the form as the form was used for data capturing and analyses. The query capture form was exclusively used in the event that the researcher needed to refer to a specific file for further clarification.

Informed consent was given by all patients on the day of their initial consult with the signage of a consent form. No direct interaction with each patient was necessary for the purposes of this study and all data was collected with the permission from each health centre head from patient files. The Data was responsibly cleared by electronic simple deletion. Full ethics approval was granted by IREC, Reference number REC 111/17.

3.11 STUDY LIMITATIONS

The study focuses on diagnosis trends for the year of 2016 exclusively and as such it is only a representative of diagnosis for each health centre for the year of 2016. The study assumes that the information recorded was done so correctly and accurately according to ICD 10. Incomplete files were a limitation due to resultant exclusion due to meeting exclusion criteria.

3.12 DATA ANALYSIS

Data was analysed using Microsoft excel and SPS version 17.1, descriptive statistics were analysed with the use of frequency tables.

Once all data was captured the top five disease prevalence overall were identified and analysed in terms of age and gender for each health centre. Descriptive statistics and graphical displays such as bar charts and pie charts drawn, and the top five diseases overall identified, as well as the top five diseases according to age group children (under the age of 18), adults (18 until 59) and the aged (60 years plus) as well as disease prevalence according to gender.

Results were also compared to each health centre in order to demonstrate any differences. The geriatric and children's age group could not be analysed for the Cato Ridge and Kenneth gardens Homoeopathic health centre as the data was insufficient to draw any statistically relevant conclusions in those subgroups.

CHAPTER 4: RESULTS

4.1 INTRODUCTION

This chapter presents the results that were obtained from this study.

The objectives of the study were:

- Identify the disease prevalence at each Homoeopathic health centre for the year of 2016.
- Identify the top five diseases seen at each Homoeopathic health centre for the year of 2016.
- Identify potential subsequent trends in terms of location, age and ethnicity vs. disease prevalence as seen in these centres.
- Compare trends amongst the Homoeopathic healthcare centres to identify similarities and differences in disease prevalence and demographics.

In order for data to be recorded, the files at each location were required to meet the study's inclusion criteria.(see chapter 3 methodology). The UNHHC had 762 files listed of which 638 files met the criteria and were recorded; the KGHHC had 153 files listed of which 79 files met the criteria and were recorded; and The CRHHC had 203 files listed of which 111 files met the criteria and were recorded. Figure 4.0.1 below displays the number of initial patient consultations for the year of 2016 at each Homoeopathic health centre while figure 4.0.2 below displays the actual number of files available for recording.

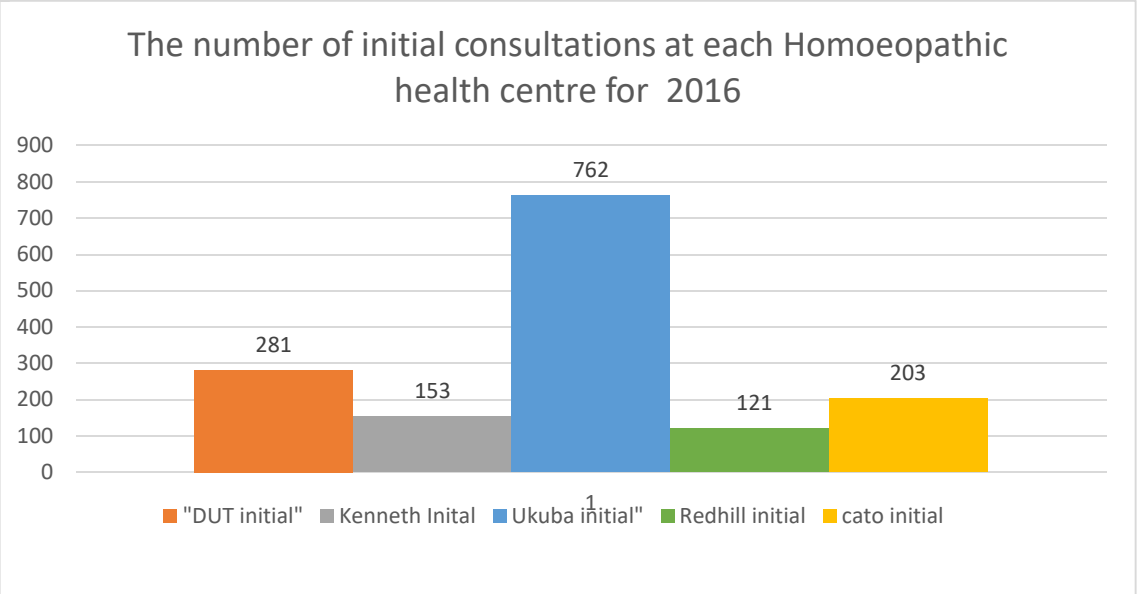


Figure 4.0.1 The number of initial consultations at each homoeopathic health centre for the year of 2016.

The number of files available which met the inclusion criteria and did not meet the exclusion criteria are listed below in figure 4 .0.2. The RHHC was excluded in the study due to not meeting the above requirements.

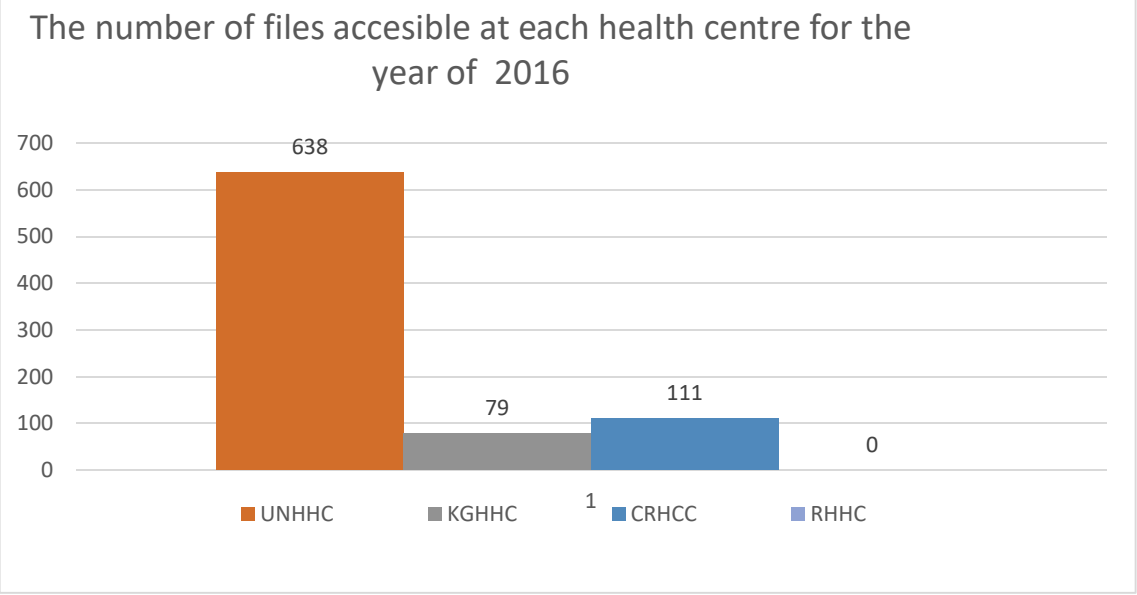


Figure 4.0.2 The number of files accessible at each health centre for 2016

The UNHHC had 638 available files, CRHHC 111 available files and KGHHC 79 available files.

4.2 THE RESULTS

4.2.1 Ukuba Nesibindi Homoeopathic Health Centre Results

The UNHHC health centre had a total of 638 files which met the inclusion criteria.

4.2.1.1 UNHHC top five disease prevalence

Table 4.1 below displays the top five diseases at UNHHC for 2016

Table 4.1: Top five diseases recorded at UNHHC

Diagnosis	ICD10	Frequencies	Overall Percentage
Influenza	J11.1	58	9.09%
Arthritis unspecified	M13.9	43	6.73%
Primary hypertension	I10	22	3.44%
Dermatitis unspecified	L30.9	18	2.82%
Tension type headache	G44.2	16	2.50%

Table 4.2 below displays the top five diseases at UNHHC according to age group for 2016. The children's subset (0-17 years) was not statistically significant enough to draw a top 5 therefore a top 2 were provided.

Table 4.2: Top diseases at UNHHC for new patients for 2016 according to age groups

Age group	**Top Disease prevalence**				
Children (0-17)	Influenza	Tension type headache	-	-	-
Adults (18-64)	Influenza	Arthritis unspecified	Dermatitis unspecified	Primary hypertension	Tension type headache
Geriatrics 65+	Arthritis unspecified	Primary hypertension	Influenza	Lower back pain location unspecified	Cough

Children were insufficient in order to draw a top five therefore top two has been provided.

Table 4.3 below lists the top five diseases in male and female patients at UNHHC for the year of 2016.

Table 4.3: Top five diseases at UNHHC for new patients for 2016 according to gender

Gender	**Top Disease prevalence**					
Male	Influenza	Cough	Arthritis unspecified	Tension type headache	Acute Upper respiratory infection	Dermatitis unspecified
female	Influenza	Arthritis unspecified	Primary hypertension	Dermatitis unspecified	Tension type headache	

Disease prevalence in males' fifth place was shared by acute URTI and dermatitis.

Figure 4.1 below shows the gender distribution at UNHHC

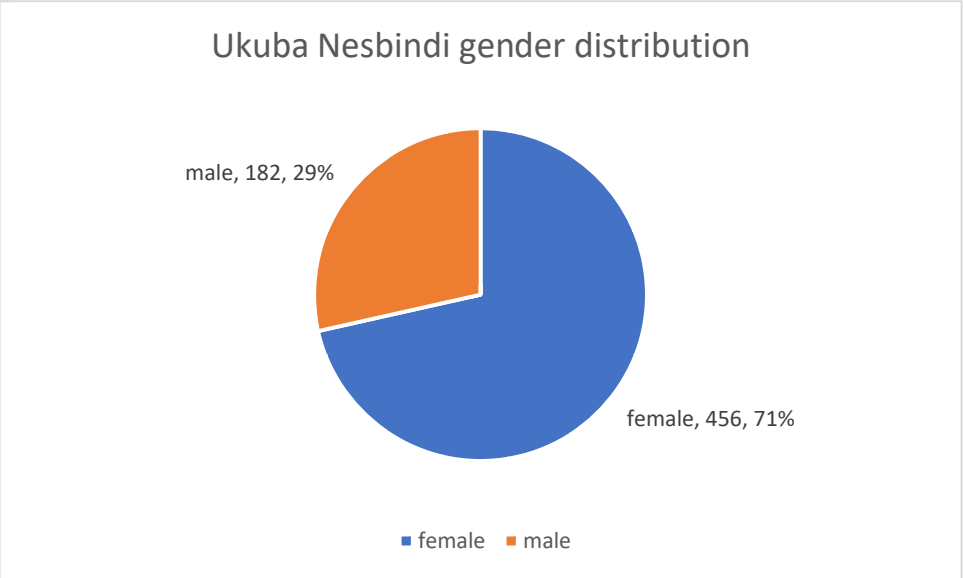


Figure 4.1: Ukuba Nesibindi gender distribution new patients

The majority of Patients at UNHHC were female at 71percent with males making up a much smaller portion of 29percent of the population.

Figure 4.2 below shows the ethnic distribution at UNHHC for 2016.

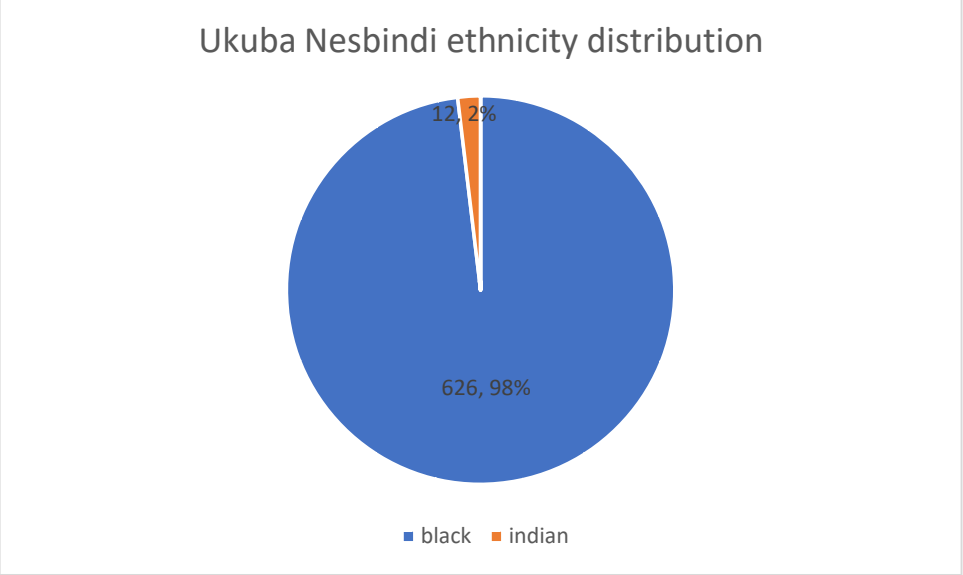


Figure 4.2: UNHHC Ethnicity distribution for new 2016 patients

The majority of Patients at UNHHC were African at 98 percent with Indians making up a much smaller portion of 2 percent.

4.2.2 Kenneth Gardens Homoeopathic Health Centre Results

The KGHHC health centre had a total of 79 files which met the inclusion criteria.

4.2.2.1 KGHHC overall top disease prevalence

Table 4.4 below shows the top disease prevalence for KGHHC for 2016

Table 4.4: The top five diseases recorded at KGHHC

Diagnosis	ICD10	Frequencies	Overall Percentage
Influenza	J11.1	11	13.92%
Atopic dermatitis	L20.9	5	6.33%
Dermatitis unspecified	L30.9	5	6.33%
Furuncle unspecified	L02.92	4	5.06%
Mono arthritis unspecified	M13.1	4	5.06%

Table 4.5 below lists the top disease prevalence at KGHHC according to age groups for 2026

Table 4.5: Top diseases at KGHHC for new patients for 2016 according to age groups

Age group	**Top Disease prevalence**					
Children (0-17)	-	-	-	-	-	
Adults (18-64)	Influenza	Atopic dermatitis	Furuncle	Dermatitis unspecified	Dysmenorrhea	Malaise
Geriatrics 65+	Mono Arthritis	Dermatitis unspecified	-	-	-	

There was insufficient data to draw further conclusions from children and geriatrics at KGHHC due to insufficient numbers frequenting the centre.

Table 4.6 below shows the top five diseases according to gender at KGHHC for 2016

Table 4.6: Top diseases at KGHHC for new patients for 2016 according to gender groups

Gender	**Top Disease prevalence**				
Male	cough	Full Faecal Incontinence	-	-	-
Female	Arthritis unspecified	Influenza	cough	-	-

Cough was the top reported disease in males while arthritis was the top reported ailment in females. The top five prevalence could not be drawn due to a lack of statistical significance.

Figure 4.3 below shows the gender distribution for KGHCC for 2016

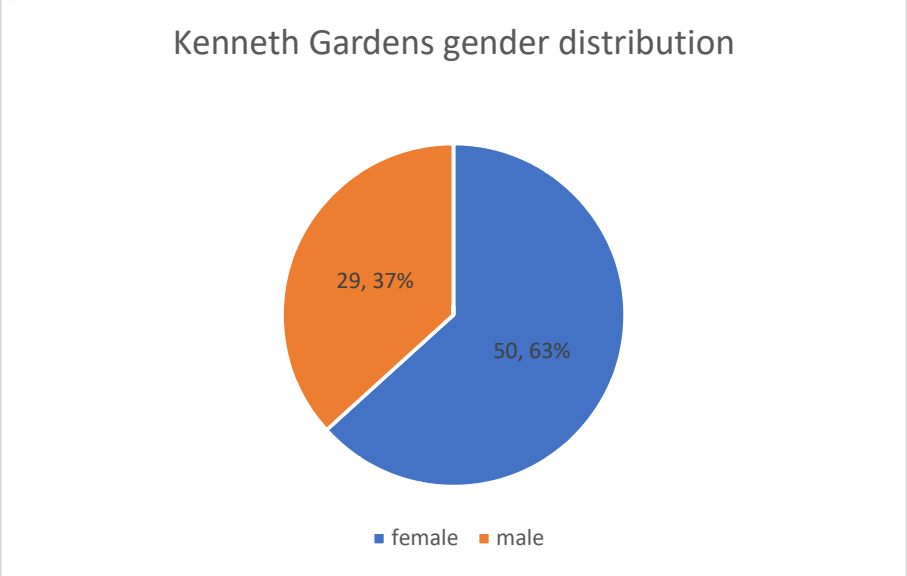


Figure 4.3: Kenneth Gardens gender distribution for new patients for the year of 2016.

The majority of patients were female at 63percent with males making up 37percent of the population.

The figure 4.4 below shows KGHHC ethnic distribution for 2016

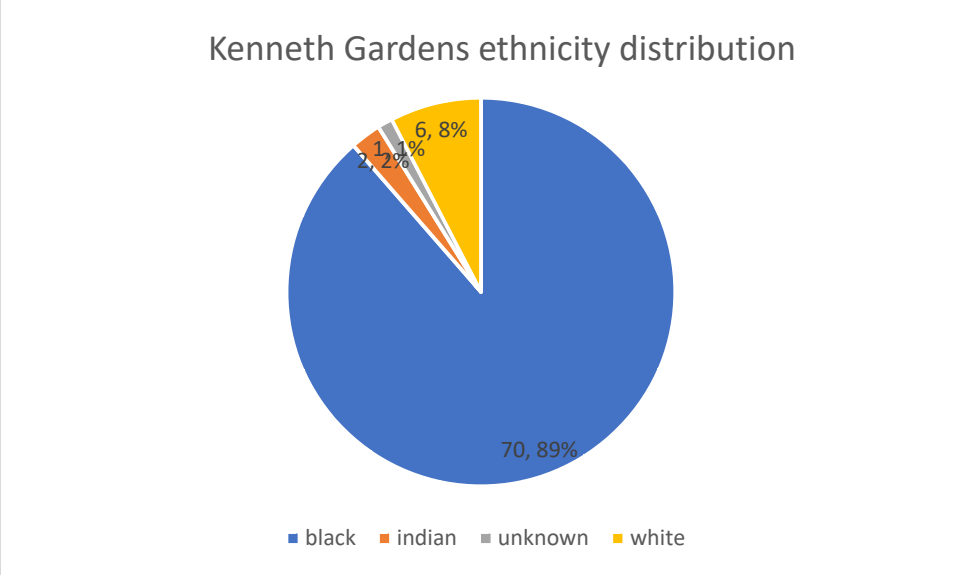


Figure 4.4: Kenneth Gardens Ethnicity distribution for new patients for the year of 2016

KGHHC had an Ethnicity distribution of 89percent African, 8percent white, 2 percent Indian and 1percent who identified as separate.

4.2.3 Cato Ridge Homoeopathic Health Centre

The CMHC health centre had a total of 111 files which met the inclusion criteria.

Table 4.7 below shows the top five diseases at CRHHC for 2016

Table 4.7: Top five diseases recoded at CRHHC

Diagnosis	ICD10	Frequencies	Overall Percentage
Arthritis unspecified	M13.9	14	12.61%
Influenza	J11.1	8	7.20%
Cough	R5	7	6.30%
Primary Hypertension	I10	4	3.60%
Simple Chronic Bronchitis	J41.0	4	3.60%
Rheumatoid Arthritis	M06.9	4	3.60%

Table 4.8 below shows the top diseases at CRHHC according to age for 2016

Table 4.8: Top diseases at CRHHC for new patients for 2016 according to age groups

Age group	Top Disease Prevalence				
Children (0-17)	Malaise & fatigue	-	-	-	-
Adults (18-64)	Influenza	Arthritis unspecified	Headache other	Acute Upper respiratory tract infection	-
Geriatrics 65+	Arthritis unspecified	Cough	Primary Hypertension	M06.9	Influenza, Gastritis

Children were insufficient to draw a top 5 at CRHHC.

Table 4.9: Top diseases at CRHHC for new patients for 2016 according to gender groups

Gender	Top Disease prevalence				
Male	UTI	Malaise	-	-	-
Female	Arthritis unspecified	Influenza	Cough	-	-

Figure 4.5 below shows the CRHHC gender distribution for 2016.

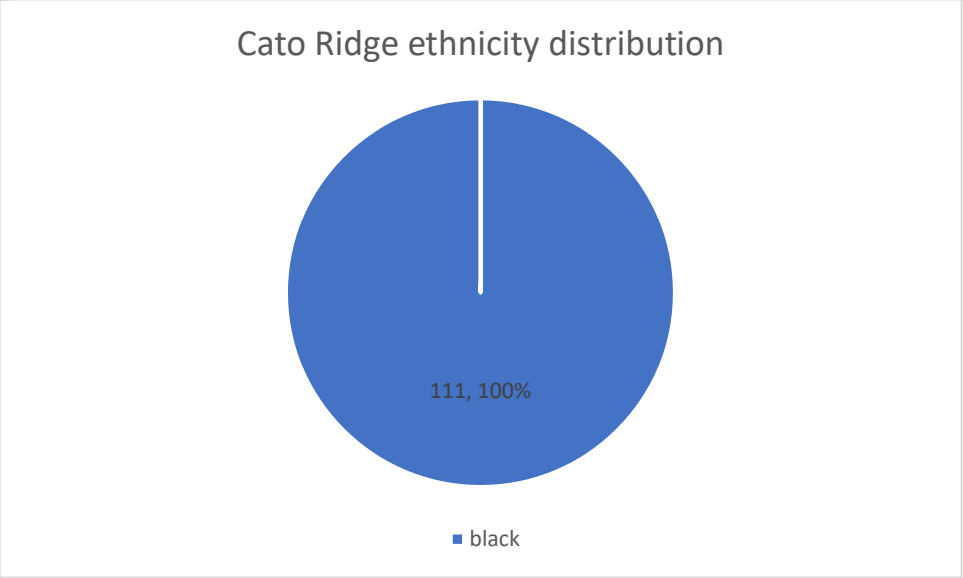


Figure 4.5: CRHHC ethnicity distribution for initial patients for 2016

The CRHHC patient base was exclusively African.

Figure 4.6 below shows the gender distribution for CRHHC for 2016

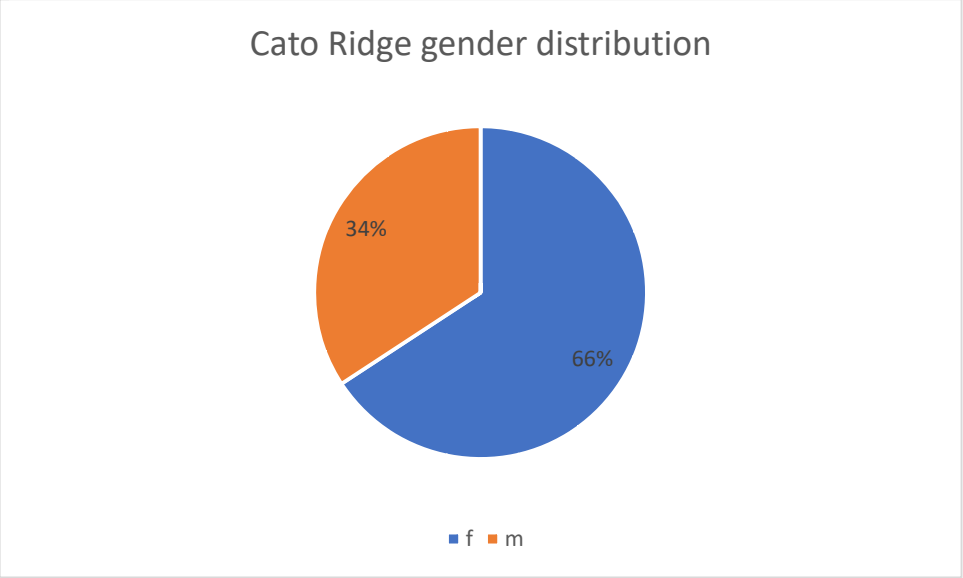


Figure 4.6: CRHHC gender distribution for initial patients for the year of 2016

The majority of patients were female at 66 percent while males comprised a smaller 34 percent of the population sampled.

4.2.4 Homoeopathic Health Centre comparison

Table 4.10: Top disease prevalence across the three Homoeopathic community homoeopathic health centres

Location	UNHHC	KGHHC	CRHHC
ICD10	J11.1	J11.1	M13.9
Diagnosis	Influenzas	Influenza	Arthritis unspecified

UNHHC shared the top disease prevalence of J11.1 whereas CRHHC differed by having arthritis as its top disease prevalence.

Figure 4.7 below demonstrates the average age of patients at each health centre.

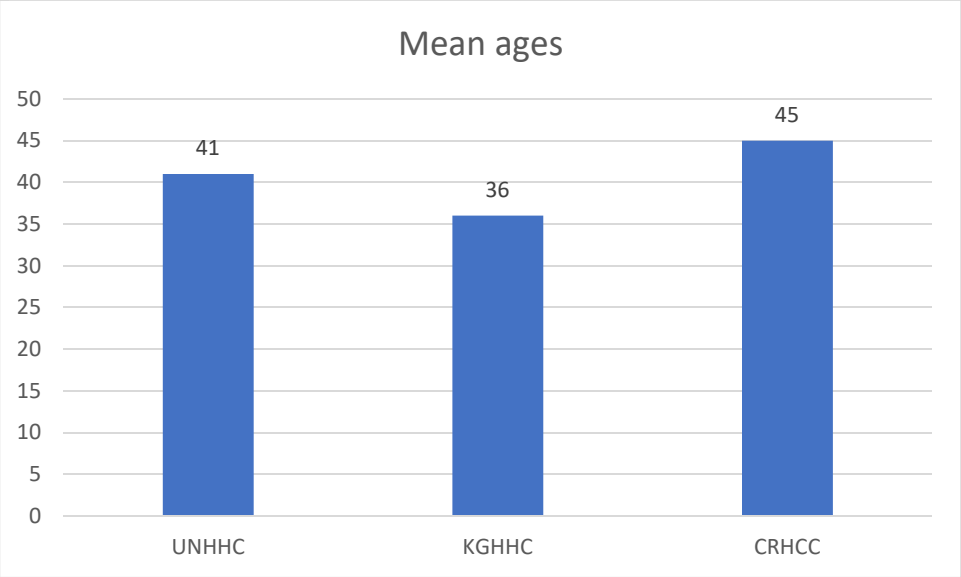


Figure 4.7 Median ages across UNHHC, KGHHC, CRHHC

Figure 4.7 displays the mean ages across the health centres, UNHHC had an average age of 41 years, KGHHC 36 years and CRHHC 45 years.

Figure 4.8 below displays the average body temperature recorded at the health centres (º c)

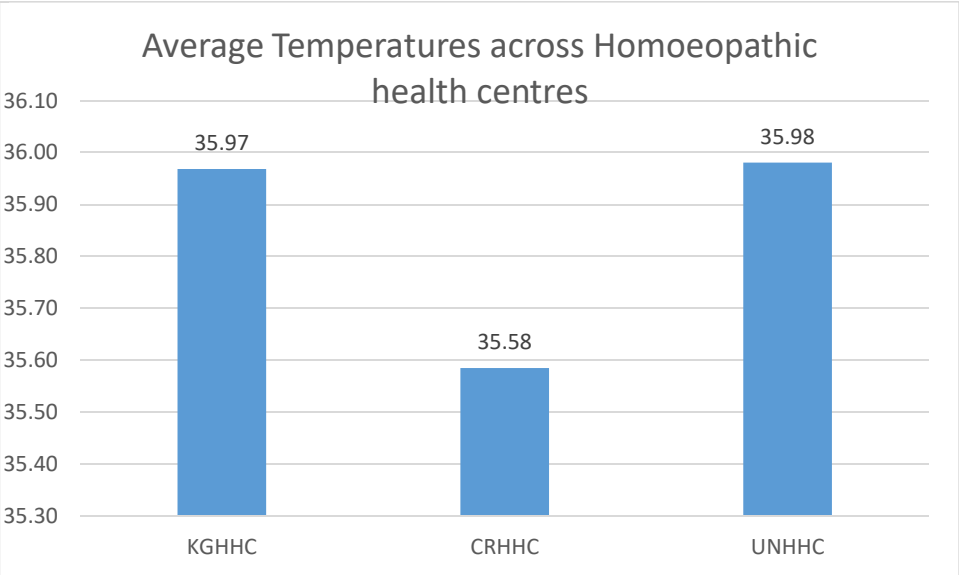


Figure 4.8 the average recorded boy temperature for UNHHC, KGHHC, and CRHHC.

The average body temperature (º C) at UNHHC was 35.97º, 35.58 º at CRHCC and 35.98 º at KGHCC respectively.

Figure 4.9 below displays the maximum temperature recorded at each health centre (º c).

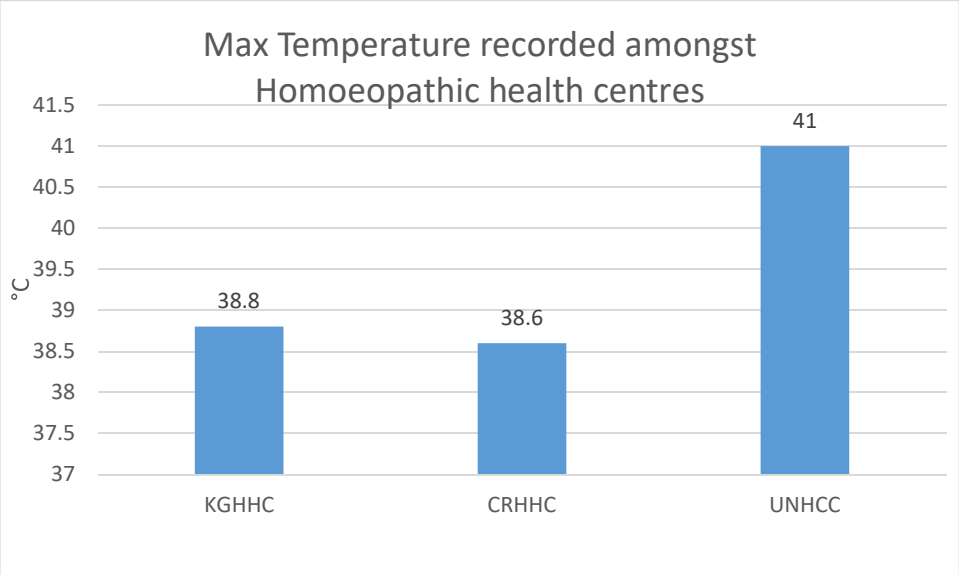


Figure 4.9 the maximum temperature recorded at UNHHC, CRHHC, KGHHC for initial patients for 2016.

The maximum body temperature recorded was 38.8 º for KGHCC, 38.6 º at CRHHC and 41 º at UNHHC respectively.

Figure 4.10 below displays the average blood pressure reading at the centres

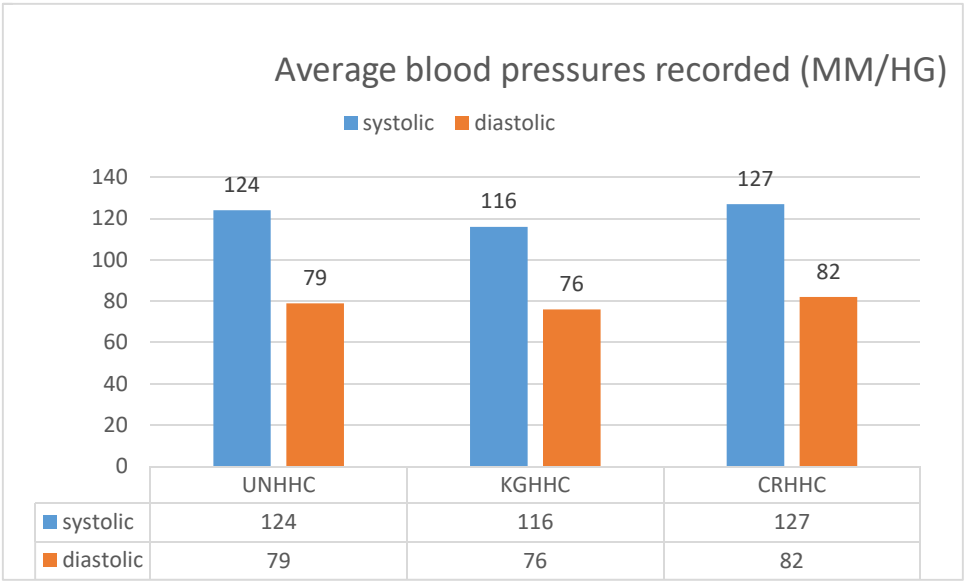


Figure 4.10 the average blood pressure recording at UNHHC, CRHHC and KGHHC

The CRHHC had an average blood pressure of 127/82, 116/76 at KGHHC and UNHHC was 124/73(mmHG).

Figure 4.11 below displays the maximum recorded blood pressure recorded at the three Homoeopathic health centres

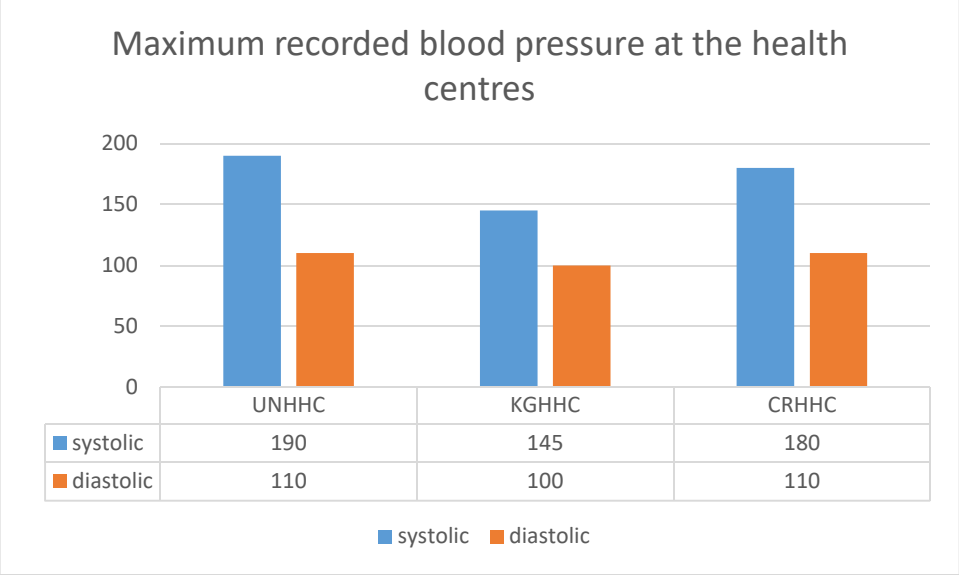


Figure 4.11 the maximum blood pressure recorded for initial patients for the year of 2016

Table 4.11: Top patient locations for UNHHC, CRHHC and KGHHC

HOMEOPATHIC HEALTH CENTRE	**UNHHC**	**CRHHC**	**KGHCC**
TOP PATIENT LOCATION	Mayville	Mkhizwana Village (Cato Ridge)	Umbilo

CHAPTER 5: DISCUSSION OF RESULTS

5.1 INTRODUCTION

This chapter will discuss the results displayed in Chapter 4.

5.1.1 UNHHC disease prevalence

The top five diseases most prevalent for UNHHC was:

- Influenza
- Arthritis unspecified
- Primary hypertension
- Dermatitis unspecified
- Tension type headache
  (Refer to table 4.1)

The most common reason for patients visiting the UNHHC was Influenza (J11.1) with influenza also being the top disease prevalence for the KGHHC. The top disease prevalence for children (0-17) and adults (18-64) at UNHHC was influenza whereas geriatrics (65+) had arthritis of an unspecified nature as their top disease prevalence at UNHHC.

The disease prevalence at UNHHC is representative in part due its surroundings being located within a poverty-stricken disadvantaged area where traders work long hours, the public are in contact with open fires and other hazardous fumes therefore the high prevalence of influenza may be due to inferior air quality and living conditions (Smillie 2010).

The increase in density and proximity of the population within Warwick Triangle as it is located near a taxi rank is likely contributing factor that furthers the likelihood of transmission of contagious disease.

The arthritis prevalence may be in part due to lower income individuals increased need to walk a great distance in order to travel or catch public transport thereby increasing the wear and tear on individuals' joints and contributing to arthritic damage. The nonspecific coding used made it difficult to differentiate osteoarthritis vs rheumatoid arthritis which differ vastly in aetiology

The geriatric disease prevalence of unspecified arthritis is possibly due to age related degeneration however the specific type of arthritis is not clear due to the M13.9 ICD 10 code being of nonspecific nature. Dermatitis is often present in areas of poor socioeconomic status with poor hygiene being a potential agonist.

Hypertension and tension type headaches are often associated with poor lifestyle including stress and a poor diet which is likely to play a role as the area is impoverished therefore dietary restrictions and stress associated with poverty could potentiate the above conditions.

The UNHHC is located within a lifeline initiative building offering HIV counselling as well as psychological counselling to vulnerable individuals. It may receive immunocompromised and/or traumatised individuals referred by lifeline employees which could also explain the high incidence of influenza and dermatitis witnessed at UNHHC.

5.1.2 UNHHC gender

Chapter 4 figure 4.1 shows the majority of patients seen at UNHHC were females at 71.5 percent with males at a 28.4 percent, this female majority falls in line with the findings of Smillie (2010) who found that 68 percent of patients at UNHHC between 2004 – 2008 were female. A 3.5 percent increase in female patients and a 3.6 decrease in male patients was seen in comparison to Smilies findings in 2010. The predominance of female patients at public health care clinics is a common finding and will be discussed later in the clinics comparison.

5.1.3 UNHHC ethnicity

Figure 4.2 of Chapter 4 shows the majority of patients were African with African patients recorded at 97.8 percent of initial consults for UNHHC for the year of 2016. Indian patients followed at a much lower percentage of at 1.9percent. No other races were recorded. Smillies findings in 2010 for UNHHC support the finding of a majority of African patient base finding 85 percent of patients were African with the remaining 25 percent comprising of Indian and white patients.

A 17.8 percent increase in the total number of patients was seen in 2016 in comparison to Smillies findings. The absence of white patients was also supported by Smillies 2010 findings displaying no presence at UNHHC.

The ethnic distribution at UNHHC is due to the location of the clinic within Warwick junction (a predominately African area) and is likely affected by the demographics within the Kwa Zulu, Natal province.

A statistics South Africa census 2011 showed that the African population comprised 86.8 percent of the population, Indian or Asians 7.4 percent, Whites 4.2 percent and Coloureds 1.4 percent with other race listed as 0.3 percent.

5.2.1 KGHHC disease prevalence

The top overall disease prevalence for KGHHC was:

- Influenza
- Atopic dermatitis
- Dermatitis unspecified
- Furuncle unspecified
- Mono arthritis unspecified

The most common reason for patients visiting the KGHHC was Influenza (J11.1) with influenza also being the top disease prevalence for the UNHHC.

The main disease presenting in adults at KGHHC was influenza whereas the top disease prevalence in geriatrics was for arthritis of an unspecified nature, there was insufficient data to draw top disease prevalence for children for KGHHC.

The main disease presenting for both KGHHC and UNHHC having the same disease prevalence for adults and geriatrics. It is interesting to note both locations being urban in nature; with air pollution typically higher in urban areas with a possibility that it may be contributing factor as to why the two urban Homoeopathic health centres see respiratory disease as their top disease prevalence whereas CRHHC sees arthritis as its top disease prevalence.

KGHHC experienced a lower arthritis rate potentially due to the lower average age of initial patients vs the other two health centres.

Three of the top listed conditions were diseases of the skin (dermatological). The high prevalence of dermatitis and furuncles can be associated with poor socioeconomic standards as well as potential lack of hygiene within the KGHHC community.

The KGHHC is located within a municipal housing estate in Umbilo which may have affected the disease prevalence as a large portion of the patient base is likely to be from the municipal housing estate. The patient's initial vs follows up patient ratio potentially supports this as 153 first time patients were attended to

vs a much larger patient base of 750 follow up patients were attended to by KGHHC for 2016.

5.2.2 KGHHC gender

Figure 4.3 (chapter 4) shows the majority of patients at KGHHC were females at 63.3 percent with males following at a 36.7 percent. Information provided by Erwin et al (2014.7-14) supports the fact that the majority of patients at KGHHC were female and states that these demographics reflect the opening time of the clinics, which operates during working hours on a Wednesday as well as a global trend towards a higher proportion of women visiting health care facilities.

5.2.3 KGHHC ethnicity

Figure 4.4 (chapter 4) shows KGHHC like UNHHC and CRHHC, KGHHC had a predominately African patient base with an Ethnicity distribution of 89 percent African, 8 percent white, 2 percent Indian and 1 percent who identified as other.

KGHHC was the only homoeopathic health centre that treated white patients of the three centres examined in this study this is due to the location of the clinic within Kenneth Gardens municipal housing estate as well as its location within the Umbilo area which in according to Frith (2001) had a population demographic of Black African 30.6 percent, Coloured 4.8 percent, Indian/Asian 8.3 percent and White 56.3 percent.

5.3.1 CRHHC disease prevalence

The top five overall disease prevalence for CRHHC was:-

- Arthritis unspecified
- Influenza
- Cough
- Primary hypertension
- Simple chronic bronchitis
- Rheumatoid arthritis

The most common reason for patients visiting the health centre was for unspecific arthritis (M13.9) in contrast to both UNHHC and KGHHC which had influenzas as their top disease prevalence. The CRHHC has a general population which was slightly older than the other two Homoeopathic health centres (figure 4.7).

It is possible that the mean age of 45 years old for CRHCC patients which is older than the other two Homoeopathic health centres could partially account for arthritis being the top disease prevalence as the patient base was older and therefore more likely to suffer from forms of arthritis.

The CRHHC health centre is also unique in that the DUT Chiropractic and nursing department have facilities within the health centre to see patients which may have also affected disease prevalence as there was cross consultations and referrals.

It is interesting to note the CRHHC is located within a rural community whereas the other two Homoeopathic health centres are urban based locations with the two urban based Homoeopathic health centres having strikingly similar disease prevalence's. The CRHHC serves an impoverished community with restricted access to healthcare (Taylor 2016). The rural nature of the CRHHC can to a certain extent explain the high incidence of arthritis as individuals are required to walk greater distances on uneven ground with resultant wear and tear on joints.

The CRHHC health centre was unique as the health centre also houses facilities run by DUT's nursing and Chiropractic department which may potentially also have affected its disease prevalence as chiropractic is likely to attract neuromuscular and musculoskeletal patients to the clinic which may also in part explain the high prevalence of arthritis recorded at CRHCC.

5.3.2 CRHHC gender

Figure 4.6(chapter 4) shows that the majority of patients attending CRHHC were females with a distribution of 66 percent female patients and 34 percent male patients. The predominance of female patients being again seen at all three clinics across the study.

5.3.3 CRHC ethnicity

Figure 4.5 (chapter 4) shows the patient population at CRHHC was exclusively 100 percent African with no other races featuring. The exclusivity of African patients is due to the location of CRHHC within the Kwa Mkhizwana Village of rural Cato Ridge. A census by Statistics South Africa showed that the population of Cato Ridge was 92.2 percent African, 5.4 percent white, 0.9 percent Indian, 1 percent coloured and 0.04 percent listed as other. The high prevalence of African individuals within the population has shaped the ethnic demographic of CRHHC and is due to a low density of other races in the surrounding area.

5.4.1 Homoeopathic healthcare centre disease prevalence comparison

Table 5.1: Summary of the top disease prevalence's at UNHHC, KGHHC and CRHHC

Rank	UNHHC	KGHHC	CRHHC
1	Influenza	Influenza	Arthritis unspecified
2	Arthritis unspecified	Atopic dermatitis	Influenza
3	Primary Hypertension	Dermatitis unspecified	Cough
4	Dermatitis unspecified	Furuncle unspecified	Primary hypertension
5	Tension type headache	Mono arthritis unspecified	Simple chronic bronchitis
5	x	x	Rheumatoid Arthritis

The three Homoeopathic centres top disease prevalence all comprised of respiratory and musculoskeletal complaints, with cardiovascular complaints in the form of primary hypertension being present at UNHHC and CRHHC.

Dermatological complaints featured at both UNHHC and KGHHC. Arthritis and influenza were prominent across all three Homoeopathic health centres with influenza featuring in either rank one or rank two respectively. KGHHC and UNHHC were found to have upper respiratory tract infections as their top disease prevalence - both areas are impoverished and surrounded by low income metropolitan communities within Durban.

It is interesting to note the top disease prevalence for CRHHC was arthritis and that upper respiratory tract infections comprised a smaller portion of reported diseases. This is possibly due to the greater rurality of the location as well as having a much smaller population density and better air quality due to being further away from industry.

Each clinics prevalence among other variables is dependent upon the infrastructure, location & living conditions and environmental hazards such as air quality associated with that surrounding area.

5.4.2 Homoeopathic Healthcare centre demographics comparison

African females predominated all three Homoeopathic health centres in the study. The predominance of women is a common trend at public health care facilities.The WHO supports this belief stating women experience more morbidity and utilise health care services more than men (WHO 2018). It is also interesting to note that women contribute to the healthcare sector more than any other sector.

The KGHHC was the only health centre where white ethnicity featured due to the surrounding area having a higher population of white individuals compared to the other two health centre locations, with white individuals living within the municipal estate where the KGHHC resides.

The mean age of patients at KGHHC was 5 - 9 years younger than the other two Homoeopathic health centres.

Figure 4.7 shows CRHCC had the oldest patient base with an average of 45 years followed by UNHCC at an average age of 41 years. KGHCC had the youngest population base average of 36 years. The younger average age attended to at KGHHC could be explained as older less mobile patients residing within the municipal residence would experience repeat house visits whereas the more mobile younger patients were from the surrounding areas.

The UNHHC and KGHHC Homoeopathic health centres are located within impoverished urban communities within Durban whereas the CRHHC is classified as rural within the Mkhizwana village which may affect variances in the data.

5.4.3 Homoeopathic Healthcare centre blood pressure comparison

Table 5.2: comparison of the average blood pressures at UNHHC, KGHHC and CRHHC

Health centre	Systolic	Rank	Diastolic	Rank
UNHHC	124	2	79	2
KGHHC	116	3	76	3
CRHHC	127	1	82	1

Blood pressure is correlated with adverse cardiovascular outcomes therefore an elevated blood pressure may increase individual's cardiovascular disease risk. (Desai, Mehul et al 2006). CRHHC had the highest blood pressure average of 127/82 mm HG whereas KGHCC had the lowest at 116/76 mm HG.

The optimal average for blood pressure is typically stated as 120/ 80mm HG while a systolic reading under 130mmg and a diastolic reading under 85mm HG is considered "normal". The KGHHC had the most optimal average blood pressure whereas the CRHHC average was elevated above the optimal range on both diastolic and systolic blood pressure. UNHHC had an average elevated systolic with its diastolic reading within normal ranges.

5.4.4 Homoeopathic Health care centre average Temperature comparison

The average body temperature (ºC) at UNHHC was 35.97º, 35.58º at CRHCC and 35.98º at KGHCC respectively. The normal range for basal body temperatures is between 36.1º and 37.2º (Mayo Clinic).

Fever is usually an indicator of illness and has many triggers such as an infection, inflammatory disorders and cancers. The average temperatures fell slightly lower than the expected average potentially due to faulty equipment or

improper technique applied when recording body temperature values. The CRHHC average was significantly lower than the other two health centres whereas UNHHC and KGHCC differed by 0.01º Celsius.

CHAPTER 6 CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

This chapter serves to describe conclusions to be drawn from this research study as well as any recommendations the researcher may have.

6.2 CONCLUSION

The three Homoeopathic health centres showed similarities in disease prevalence as respiratory and musculoskeletal complaints featured strongly in each Homoeopathic health centre's disease prevalence.

The KGHHC and UNHHC showed the greatest similarity due to the fact they both are located within low income metropolitan communities within Durban. The close location could potentially explain similarities. Influenza and arthritis were the most common diseases seen across all three Homoeopathic health centres. Dermatological complaints were also prevalent at KGHHC and UNHHC with KGHHC having the greatest prevalence of dermatological disease of the three Homoeopathic health centres. The location and population demographic of the area the Health centre was located in affected the demographics of the patients seen to at the centre as each location has slightly different demographics as well as environmental factors.

The study demonstrated that the majority of the patients across all three Homoeopathic health centres were African due to the population demographics of Kwa Zulu, Natal being predominantly African. White and Indian patients were the minority across the board. THE CRHHC attended to exclusively African patients due to the fact it is located in rural Cato Ridge with a high prevalence of African population .The patient numbers at each clinic could be improved considering the population numbers surrounding each homeopathic health centre vs actual number of patients seen.

The majority of patients across the three Homoeopathic health centres were females in part due to women having a higher burden of health than men bringing more women to the health centres. (carretaro et a 2014)

The higher numbers of women visiting the health centres means that students have a much greater exposure to female patients than male patients as part of their learning experience at the health centres.

6.3 RECOMMENDATIONS

It was noted on files that a significant number of paediatric files were incomplete and therefore excluded from the study due to meeting exclusion criteria; the researcher recommends more focus to be given on children case taking as well as ensuring separate files are created for child and parent. The researcher suggests acquisition of child sized Blood pressure cuffs and apparatus so as to provide a more complete case with vitals which would benefit the student in terms of the learning experience and provide more depth into cases.

The researcher also recommends looking at ways to encourage individuals of a broader age variant, especially children to visit the Homoeopathic health centres as current clinical exposure to this age group appears to be insufficient. Community drives promoting the health centres at various locations may benefit in this regard. The promotion of the health centres via social media, guided community talks and workshops creating awareness may further aid in exposure and increasing patient numbers at each health centre.

Height and weight measurements were recorded inconsistently and had to be removed from the study; the researcher recommends acquiring new equipment in order to accurately record data. The researcher is however aware that at times due to time constraints it is not always possible to do so due to the nature of the clinics. Increasing of the amount of days each health centre is open may assist in increasing patient numbers as well as the spectrum of patients that utilise the clinic. The increasing of open days may also aid in decreasing patient load on current open days ensuring cases and file recordings are conducted in an accurate manner.

In terms of recording disease prevalence, it was noted a few inconsistencies in ICD10 coding vs. actual written diagnosis recording. The researcher is of the opinion more in-depth training of ICD 10 coding, focusing on the importance of accurate billable coding with reference to practicing and a greater in-depth teaching of billable codes would be beneficial as the utilisation of non billable codes when in practice could result in non payment from medical aid institutions.

It was noted diagnosis recording of diagnosis was at times nonspecific and non-billable codes e.g. J11.1. A non billable code cannot be used in order to claim/ bill medical aid schemes. A better knowledge of the ICD 10 code system and its importance will aid the student when they are qualified and in practice so that they may be able to claim back from medical aids using billable codes and keep accurate records of patient diseases. Accurate ICD 10 coding will also allow patients to claim back from medical aids in the event that the practitioner is contracted out of medical aid schemes. An electronic quick access ICD database for each health centre could be of benefit minimalising the time it takes to acquire a suitable ICD 10 code while streamlining the process of consulting patients.

The researcher feels electronic recording of cases where a standardised input form would streamline case taking and assist with standardising information recorded. Electronic recording has other benefits in terms of eliminating issues with storage space, privacy, incomplete files and quick access to ICD 10 coding.

Electronic recording would also facilitate quick analyses of paperless data which may provide valuable information to the department with regards to the Homoeopathic health centres which may help with adaptive training and facilitate education. Electronic recording is already being utilised at a rural Homoeopathic clinic within Kwa Zulu Natal successfully which is operated by a private non profit organisation. The researcher recommends an evaluation study should be conducted that focuses on the environmental hazards and socio-economic factors affecting individuals in the surrounding areas of each health care centre in order to assess whether the above factors are affecting disease presentation.

The fourth Homoeopathic health centre Redhill Homoeopathic Health Centre was ultimately excluded by the study due to it failing to meet inclusion criteria therefore no results could be obtained, and an entire sample group was omitted. The

researcher recommends a study evaluating the health centre after the year 2017 as the criteria is more likely to have been met.

The results of this study indicate the role Homoeopathy plays in the treatment of disease. This should be analysed by DUT Homoeopathic staff to guide areas that should be given more attention to in diagnostics, pathology and clinical homoeopathy specifically.

Further research can be conducted on the remedies most prescribed for these conditions and their effectivity to ensure dispensary requirements are met in a clinical setting.

REFERENCES

AHPCSA.2018.THE ALLIED HEALTH PROFFESIONS COUNCIL OF SOUTH AFRICA. Available: https//ahpcsa.co.za/ (Accessed 30 JUNE 2018).

AYUSH.2017. Ayush Ministry of Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy.Available: http://ayush.gov.in/. (Accessed 8 October 2018).

BHA. 2018.British Homeopathic Association-Facts. Available: https://www.britishhomeopathic.org/homeopathy/facts/.(Accessed 15 October 2018)

British Homoeopathic Association 2008. The growing demand for homoeopathy. (Online). Available at:http://www.britishhomoeopathic.org/what-is-homeopathy/facts/the-growing-demand-for-homeopathy/ (Accessed 2 September.2016).

Burns, S. and Cruz, D. 2012. Clinical audit--process and outcome for improved clinical practice.

CDC.2011.CDCCDC's HIV/AIDS Care and Treatment Programs in South Africa.Available:https://www.cdc.gov/globalhealth/countries/southafrica/what/antiretroviral-treatment.htm.(Accessed 20 September 2018).

Centre for disease control South Africa. 2011. CDC's HIV/AIDS and Treatment Programs in South Africa. (Online)Available at: https://www.cdc.gov/globalhealth/countries/southafrica/what/antiretroviral-treatment.htm (Accessed 15 September 2016).

DEPARTMENT OF HEALTH OF SOUTH AFRICA. 2014. Mortality and causes of death in South Africa 2013 Findings from death notification.

Desai, M., Stockbridge, N., & Temple, R. (2006). Blood pressure as an example of a biomarker that functions as a surrogate. The AAPS journal.

DOH.2018.NationalHealthInsurance.Available:https://www.gov.za/aboutgovernment/government-programmes/national-health-insurance-0.(accessed12 September 2018).

Dube, N. 2015. Patients' perceptions of their first Homoeopathic consultation at Ukuba Nesibindi Homoeopathic Community Clinic.

Durban University of Technology. Homoeopathy (online) Available at: http://www.dut.ac.za/faculty/health_sciences/homoeopathy/satellite_homoeopathic health_centres/ (Accessed 30 August 2016).

DUT.2018. About DUT.Available: https://www.dut.ac.za/about/. (Accessed 15 November 2018).

DUT.2018. Homoeopathic Satellite Clinics and Community Outreach Programs.Available:https://www.dut.ac.za/faculty/health_sciences/homoeopathy/satellite_clinics.(Accessed December 2018).

DUT.2018.DUT Homeopathy Handbook.

ECCH. 2015.European Council of Homeopathy Standards and Competencies for the Homeopathy Profession.

Erwin, K; Marks, M. and Couchman, I. 2014. Homeopathic health care in a low-income housing estate in Durban : possibilities for a Plural Health Care Model in South Africa. The International Journal of Health, Wellness, and Society.

Esposito, P. and Dal, A. Clinical audit, a valuable tool to improve quality of: General methodology and applications in nephrology. World Journal of Nephrology.

Ferrucci, L. 1994. Demographic Data, Clinical Conditions, Treatment and Clinical

Gearing, R. E., Mian, I. A., Barber, J., & Ickowicz, A. (2006). A methodology for conducting retrospective chart review research in child and adolescent psychiatry. Journal of the Canadian Academy of Child and Adolescent Psychiatry.

HARVARD SCHOOL OF PUBLICHEALTH.2018.Prevalence and Incidence Defined Available:https://www.hsph.harvard.edu/obesity-prevention-source/prevalence-incidence/ (Accessed 10 SEPT 2018).

HSA. 2012. Homoeopathy-explained. (Online). Available at: https://www.homeopathy.org.za/homoeopathy-explained(Accessed 28 August.2016).

HSA.2016.HomoeopathicTraining.Available:https://www.homeopathy.org.za/homoeopathic-training.(Accessed 20 October 2018).

Khumalo,P. 2015. Patients' experiences of homoeopathic rendered at a primary health facility in the eThekwini district.

Love, Kirsty. 2016.A STUDY OF THE PERCEPTIONS AND EXPERIENCES OF PATIENTS RECEIVING HOMOEOPATHIC CARE IN THE CONTEXT OF PRIMARY HEALTHCARE SERVICES WITHIN THE PUBLIC SECTOR.

Majola, S. 2015. The perceptions of homoeopathic doctors practicing in Kwa Zulu-Natal on their role in the public healthcare system in South Africa.

Mayoclinic .2019. Fever: First aid .Available: https://www.mayoclinic.org/first-aid/first-aid-fever/basics/art-20056685 (Accessed December 2019)

McLaren, M., Ardington, C. and Leibrandt, M. 2014. Distance decay and persistent health disparities in South Africa.

Methods employed by Homoeopathic Private Practitioners as compared to Homoeopathy students at Technikon Natal – Their significance in the quality of treatment received. M. Tech: Homoeopathy dissertation, Technikon Natal, Durban

Pearce, N.2000 A short introduction to epidemiology Chapter 3: Prevalence studies. Centre for Public Health Research Massey University Wellington, New Zealand.

Pramllal,Pratisha.2016.A RETROSPECTIVE CLINICAL AUDIT OF THE DURBAN UNIVERSITY OF TECHNOLOGY HOMOEOPATHIC SATELLITE CLINIC IN REDHILL.

Rosenheck, R. 2000. Primary satellite Homoeopathic health centres and improved access to general and mental health services. Health Services Research.

Selman, L. and Harding, R. (2010). How Can We Improve Outcomes for Patients and Families Under Palliative? Implementing Clinical Audit for Quality Improvement in Resource Limited Settings. Indian Journal of Palliative: 1.

Smillie, T. 2010. A clinical audit of the Durban University of Technology Homoeopathic clinic established at Ukuba Nesibindi: 20.

Solomon, E. 2014. The development of a model to facilitate success when establishing a homoeopathic private practice in South Africa. D.Tech, University of Johannesburg.

South Africa. Department of Health. 2000. Primary Health Care Progress Report. Pretoria: Government Printer.

South Africa. Department of Health. 2000. Primary Health Progress Report.

Statistics South Africa.2001.census 2001.Demographics Umbilo.

Statistics South Africa.2011.census 2011.Demographics.Cato Ridge.

Statistics South Africa.2016.Mortality and causes of death in South Africa, 2016: findings from death notification. Edition po309.Pretoria.

Taylor, E.2016.DUT Cato Ridge Community Health Project 6 Months Report: 2.

Twiggs, L. 2017.Breakdown of clinic numbers 2016 home.

Watson, T. 2015.A patient benefit and perception survey of the Durban University of Technology homoeopathic satellite clinic established at Ukuba Nesibindi.

WHO.2014-2023.The WHO Traditional Medicine strategy 2014 – 2023.Geneva.

WHO.2016.GlobalHealthEstimates.Available:https://www.who.int/news-room/fact-sheets/detail/the-top-10-causes-of-death(accesed December 2018).

WHO.2018.Available:https://www.who.int/about-us (Accessed 10 SEPT 2018).

WHO.2018.GlobalHealthObservatory.Available:https//www.who.int/healthinfo/global_burden_disease/estimates/en/index1.html (accessed September 2018)

WHO.2018.ICD global classifications Available: https://www.who.int/classifications/icd/en/ (Accessed 10 SEPT 2018).

Worster A, Haines T.2004. Advanced statistics: understanding medical record review (MRR) studies.

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Appendix A: Gatekeeper letter to health centre Heads

Date: 25/10/2017

Details of addressee: Dr _____ of Durban University of Technology, Head clinician

Request for Permission to Conduct Research

Dear: Homoeopathic Health Centre Head

My name is Roger Du Plooy, a Homoeopathic student at the Durban University of Technology. The research I wish to conduct for my Masters dissertation involves A retrospective chart review of disease prevalence in patients attending Homoeopathic satellite homoeopathic health centres within the eThekwini Health District.

I am hereby seeking your consent to have access to patient files at your health centre

I have provided you with a copy of my proposal which includes copies of the data collection tools and consent and/ or assent forms to be used in the research process, as well as a copy of the approval letter which I received from the Institutional Research Ethics Committee (IREC).

If you require any further information, please do not hesitate to contact me on 0741331769, or at roger.mark.du.plooy@icloud.com Thank you for your time and consideration in this matter.

Yours sincerely,

Roger Mark du Plooy

MTECH student 21010567

Durban University of Technology

Appendix B1: Ukuba Nesibindi Recording sheet

Patient reference number	ICD-10 codes	Diagnosis	Age (years)	Gender	Ethnicity	Location	Temperature (c)	Blood pressure(MM/HG)	Urine dipstick	Blood glucose(m.mol)
U1										
U2										
U3										
U4										
U5										
U6										
U7										
U8										
U9										
U10										
C11										
C12										
C13										
C14										
C15										
C16										
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C18										
C19										
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C36										
C37										
C38										
C39										
C40										
C41										
C42										
C43										
C44										
C45										
C46										

Appendix B2: Kenneth Gardens recording sheet

Patient reference number	ICD-10 codes	Diagnosis	Age (years)	Gender	Ethnicity	Location	Temperature (c)	Blood pressure(MM/HG)	Urine dipstick	Blood glucose(m.mol)
K1										
K2										
K3										
K4										
K5										
K6										
K7										
K8										
K9										
K10										
K11										
K12										
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K36										
K37										
K38										
K39										
K40										
K41										
K42										
K43										
K44										
K45										
K46										

Appendix B3 Cato Ridge recording sheet

Patient reference number	ICD-10 codes	Diagnosis	Age (years)	Gender	Ethnicity	Location	Temperature (c)	Blood pressure(	Urine dipstick	Blood glucose(m.mol)
C1										
C2										
C3										
C4										
C5										
C6										
C7										
C8										
C9										
C10										
C11										
C12										
C13										
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C36										
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C38										
C39										
C40										
C41										
C42										
C43										
C44										
C45										
C46										