

**THE PLACE OF COMMUNITY RADIO IN PACKAGING AND DISSEMINATING
HEALTH MESSAGES ON NON - COMMUNICABLE DISEASES IN SLUMS: A CASE
STUDY OF KOCH FM**

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DECLARATION

Candidate's Declaration

This research project is my original work and has not been presented for a degree in any university.

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Sign.....

Date.....

Supervisor's Declaration

This project has been presented for examination with my approval as the University Supervisor.

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Project Supervisor,

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DEDICATION

I dedicate this work to my family; the pillar of my life and strength. I particularly appreciate the guidance and wisdom instilled to me by Dad; John Mupusi and Mum; Janet Chacha for all their sacrifices in life to build my future. To all my siblings, you made it happen! Thank you for according me the support.

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LIST OF ABBREVIATIONS AND ACRONYMS

NGO	Non- Governmental Organization
CVDs	Cardiovascular Diseases
APHRC	African Population and Health Research Centre
FM	Frequency Modulation
HIV/AIDS	Human Immunodeficiency virus/ Acquired Immune deficiency syndrome
UNESCO	United Nations Educational, Scientific and Cultural Organization
SPSS	Statistical Package for the Social Sciences
AMARC	World Association of Community Radio Broadcasters
CCK	Communication Commission of Kenya
FGDs	Focus Group Discussions
R	Respondent
SSA	sub-Saharan Africa
WHO	World Health Organization
NCDs	Non-communicable diseases
LMICs	Low- and Middle-income Countries
KCOMNET	Kenya Community Media Network
NUHDSS	Nairobi Urban Health and Demographic Surveillance System
CCN	City Council of Nairobi

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DEFINITION OF TERMS

Mass Media

Radio

Community Radio

Non-communicable diseases

Hypertension

Cardiovascular Diseases

ABSTRACT

Until recently, non-communicable diseases, in particular hypertension and diabetes, have been known to affect mainly the rich but with change in lifestyle; the diseases now equally affect the poor and are considered the number one causes of deaths globally. The ailment affects even children as young as four months old. (Daily Nation, Wednesday, June 12, 2013.pg 68). According to the WHO (2011), more people die from cardiovascular diseases in SSA (12.5%) than from HIV/AIDS (12.3%) or malaria (7.3%).

APHRC (2008) in a study of 5,190 randomly selected respondents 12% were hypertensive and 4% diabetic. The same study also revealed that 7 out of 10 people suffering from diabetes and hypertension in Korogocho and Viwandani are not aware of their health status.

The mass media plays a crucial function in disseminating information as well as providing feedback and educating the masses. In Korogocho, there is Koch FM, a community radio, which airs health programmes to inform and educate residents.

Research findings from this study indicate that slum dwellers in Korogocho have limited access to information on health matters and particularly CVDs. Most Programmes aired by Koch FM are concentrated during the day when most residents are out of their houses in search of their daily bread, some people do not have radios to listen to news since they can afford to purchase one. Language use in broadcasting messages emerged as a point of concern as most youthful people prefer slung language while the station uses Kiswahili in broadcasting their messages to the community.

CHAPTER ONE: INTRODUCTION AND BACKGROUND

1.0 Introduction

This chapter focused on the background of the study and problem statement that showed the existing gap being examined. The chapter also highlighted research objectives, questions to be answered in the study and explained the rationale and justification of the study as well as giving information on the scope and limitation of the study. The chapter finally elaborated on a few terminologies on their meanings in the operational definition of terms section.

1.1 Background of the study

Mass media has several functions according to Lasswell, (Lasswell, 1971). The functions of mass media include: Informing, educating, entertainment, persuading, advertising among others.

These functions are sometimes not performed properly by the mass media institutions because of limiting factors that include media ownership, over-concentration of the media on politics and entertainment, audience segmentation and recently media convergence. Although faced with the challenges that hinder effective communication, the mass media is expected to contribute to development in their countries through disseminating messages effectively to the target audience.

Sullivan et al (2003) notes that media collectively acts to provide audiences with their ‘windows on the world’ and with ‘definitions of social reality’. This statement indicates that the media acts as a powerful tool that can be used to shape and direct public view and understanding of certain phenomenon.

Sullivan writes: “In providing images, interpretations and explanations of events occurring in the wider world, the media do not simply and neutrally provide information about the world but actively encourage us to see and understand it in particular ways and in certain terms.”

In Kenya, non-communicable diseases have become a major health problem. The diseases, mainly diabetes, hypertension, cancer, cardiovascular diseases and chronic respiratory diseases have affected and continue to ravage hundreds of people in the country. (Health Working Group report, 2012). For Example the Ministry of Health indicates that there are 80,000 new cancer infections in Kenya every year in the same report.

“Kenya is confronted with several emerging health related issues. These include high prevalence of non-communicable diseases (NCDs), whose socio-economic consequences would have both short-term and long-term implications on the Government and households.” (Health Working Group Report, 2012).

This has been echoed by the WHO fact sheet 2011 which indicates that:

- Non-communicable diseases (NCDs) kill more than 36 million people each year.
- Nearly 80% of NCD deaths - 29 million - occur in low- and middle-income countries.
- More than nine million of all deaths attributed to non-communicable diseases (NCDs) occur before the age of 60; 90% of these "premature" deaths occurred in low- and middle-income countries with urban poor population being the worst affected.
- Cardiovascular diseases account for most NCD deaths, or 17 million people annually, followed by cancers (7.6 million), respiratory diseases (4.2 million), and diabetes (1.3 million).

The worst affected by the diseases are the poor, who can hardly afford the often costly and lifelong treatment for NCDs such as diabetes and hypertension.

A study by the African Population and Health Research Centre (APHRC) in Korogocho and Viwandani slums in Nairobi (2009) reveals that 12% of the study population in Korogocho and Viwandani urban slums are either hypertensive or diabetic. Shockingly, the study further states that only 1 out of 5 respondents were previously aware of their conditions. Statistics by APHRC research show that NCDs is a time bomb and if adequate information is not availed, more people may be victims yet since they do not feel sick, they might not take initiatives to go for check-ups in hospitals.

Immense awareness through messages relayed by media channels on regular blood pressure checks comes in handy to educate the masses on getting tested for diabetes or hypertension in early stages. (Dr. Sam Oti, NCD expert and researcher at APHRC, interviewed June, 2013)

APHRC Status Report on Hypertension in Africa 2013 indicates that the new epidemic of emerging patterns of CVD is not only an important public health problem, but it will also impact in the economy of the country as a significant proportion of the productive population becomes chronically ill or die, leaving their families in poverty.

CVD patients as well as healthy people need information on how they can manage the diseases or keep them away.

The diverse nature of the media industry in Kenya, Africa and the world has enabled a huge reach of people by communicating research through media channels. As a major medium of communication, both mainstream and community media has taken a central role in disseminating

research findings and giving research feedback to the society and making information available to policy makers for informed decision making.

Research has been carried out in various areas of development. The health sector has not been left out. The big question is how research information is synthesized, repackaged and communicated back to the society for feedback and uptake of various measures and findings by the communities. The Media is seen as a fundamental aspect in terms of disseminating research to the general public.

This research sought to examine exactly how research information on CVDs in the slums is disseminated with a special focus to non-communicable diseases and particularly diabetes and hypertension research through one community radio stations (Koch FM in Korogocho Slums). The research also sought to find out if the Korogocho community is well informed of the ailments through media awareness by Koch FM.

Science in most cases does not see the light of day in coverage of issues in the media because of various competing matters especially politics and business. Most science programs do not last long in either electronic media or print pages because they are considered boring and complicated yet they touch on the wellbeing of people and development.

In Kenya, the media industry has not given enough air time to health and science issues the seriousness they deserve thus creating a communication gap for research information within the media industry. Radio is one of the tools of communication, which people rely on for information. The spread and reach of radio makes it the most powerful tool to disseminate health messages to the public and particularly in the slums.

In Korogocho slums, Koch FM a community radio broadcasts its programmes to slum residents and those living in areas bordering the informal settlement.

Among the programmes the station disseminates health messages on various diseases and emerging health related issues in the community. These include diabetes and hypertension, which have become a burden to many families living in the slums.

1.2 Problem Statement

Statistics indicate that chronic diseases will account for a quarter of the total deaths in the world by 2015. Globally, about 9.4 million deaths are related to high blood pressure and over 80 percent of these deaths occur in low and middle income countries. Cardiovascular disease (CVD) is the number one cause of mortality worldwide including sub-Saharan Africa (SSA) and according to the **WHO**, more people die from cardiovascular diseases in SSA (12.5%) than from HIV/AIDS (12.3%) or malaria (7.3%). Hypertension is the leading risk factor for CVD worldwide. (WHO Fact sheet N°317, March 2013). The unfortunate reality is that these surprising statistics are only reached and accessed by scientist themselves and not the common population which could get basic knowledge on prevention and treatment of the ailments through the media are still in the dark.

In Kenya, the ailments remain a great challenge especially among low income earners particularly in urban slums. In 2008, 7.3 million people died of heart disease, 6.2 million from stroke or another form of cerebrovascular disease (WHO, The top 10 causes of death 2008). In low income countries over 60% people live beyond the age of 70 years and mostly die of chronic diseases (WHO, The top 10 causes of death 2008). Chronic ailments including heart disease, stroke, cancer, diabetes and other chronic diseases are often thought to be public health problems

of significance only in high income countries have now invaded the poorest of the poor. In reality, only 20% of chronic disease deaths occur in high income countries - while 80% occur in low and middle income countries, where most of the world's population lives (Non - Communicable Diseases: An overview of Africa's New Silent Killers, 2005).

In Kenya, research by APHRC has shown that in urban slums, every 1 in 8 adults are suffering from hypertension; 7 out 10 of those with hypertension and diabetes have never been diagnosed and hence are not aware of their status. Causes leading to the increase of non-communicable diseases are poor diet, lack of exercises, stress, smoking, alcohol consumption among others. According to APHRC-NCD activity report 2008-2009, it is estimated that about 71% of urban residents in Kenya live in slums, If most of those suffering from these ailments are not aware of their status, the health sector could be sitting on a time bomb. Equally, the global status report on non-communicable diseases 2010 pg11 indicates that there is lack of global knowledge on NCDs for action by policy makers most of which can be disseminated through the media channels.

Various efforts have been made to communicate the information on non-communicable diseases through research reports, policy briefs, fact sheets and other scientific means. However, little has been done to translate and dilute the complex scientific information into a lay man's language for the common people in different diversities to understand the health messages through the various media programming and especially in the existing community radio station in Korogocho slums; an urban slum in Nairobi Kenya. It is disappointing to learn that a huge number of people suffering from diabetes and hypertension in Korogocho slums are not aware of their status yet we have a community radio station in the region which could be used to educate and inform the community on the measures to take including declaring the topic 'in

their news headlines thus setting the agenda for discussion in the community. This study examined the role the radio plays in disseminating information on diabetes and hypertension in Korogocho slums. It further established the kind of programming aired by Koch FM and how effective they were in disseminating health information to the community.

Media is tasked with the responsibility of informing the masses and community media including Koch FM is one such medium. According to (The media in Kenya, 2011) McQuail (2005:37-38) posits that media and journalism are often considered critical to society because they are a 'potent force for public enlighten, supplementing and continuing the new institutions of universal schooling, public libraries and popular education'.

Koch FM is currently running a health programme called *Afya Yako* (Your Health) which covers health issues from CVDs, maternal health and HIV/AIDS. The health desk has 4 health reporters out of the total 10 Journalists in the station. The health programme only runs once a week on Thursdays from 11.00 am to 12.00 noon. One Programme a week is not enough to disseminate the magnitude of health needs in communication. There is need to also focus on features and long interviews conducted by experts to educate the community on proper health measures.

1.3 General Objective

The purpose of this study was to find out whether cardiovascular diseases patients suffering from diabetes and hypertension in Korogocho slums, Nairobi benefit from information disseminated by Koch FM radio station for life style change.

1.3 .1 Specific Objectives

- To identify the priming of diabetes and hypertension health issues coverage by the community radio (Koch FM)
- To examine language use when covering non-communicable health issues in the community radio station (Koch FM)
- To find out if people listen to programmes aired by the community radio station (Koch FM)

1.3.2 Research Questions

- What time in the news is diabetes or hypertensive related issues are aired by the community radio?
- What language is appropriate for use in communicating health messages for the slum dwellers and what language are the programmes aired in the community radio?
- What are the audience patterns' of listening to health messages on diabetes and hypertension aired by Koch FM?

1.4 Hypothesis

Most people in Korogocho slums in Nairobi have radio sets and always listen to health programmes aired by Koch FM community radio station based in the community.

1.5 Rationale and Justification of The Study

Radio is one of the most listened to media because of its wider reach and affordability. Most people depend on it as a source of information. This study will help identify the role of radio, in particular Koch FM, in disseminating information on diabetes and hypertension to Korogocho

residents. This will be a unique target since most slum dwellers do not have television sets because of obvious reasons of limited space in their houses and affordability which then makes it necessary for residents to own radio in their houses and in most cases they will tune to listen to what is happening around them and in this case Koch FM for Korogocho issues

The study sought to find out if residents know about the radio programmes on diabetes and hypertension, if information disseminated reaches intended audience, how they receive and understand it and the way it is packaged and most importantly if it is helpful. The outcome of the study are expected to help presenters at Koch FM know if the health programmes they air reach target audience, if the information is relevant and how it is used. This research study revealed findings that shall help the station re-programmes their programmes and change timing of their news and features not to mention but also talk shows and interview to target majority of people at the right time in their best times to listen and life for a life change. At the policy level, research outcome will enable the government, through Ministry of Health, know effectiveness of radio in disseminating messages on diabetes and hypertension. This may call for change of strategy if it is not effective.

1.6 Scope and Limitations

The study only looked at one community radio in the urban slums of Nairobi Koch FM. Although there are many community radio stations in Nairobi and which broadcasts to the slum including Pamoja FM, Ghetto radio, Ghetto FM stations, the findings of this study may not be generalizable to all community radios in Kenya. The study is also limited to the issues of health and specifically non-communicable diseases narrowing down to only diabetes and hypertension.

The study only focused on patients who participated in the study within the slum therefore the study results may not be a representative of the whole urban slum population.

1.7 Operational Definition of Terms

Mass Media

The mass media refers to channels of communication such as television, radio, newspapers, magazines, and recently the internet. According to Excellence in Communication, Media Training and Practice in East Africa, 2008, mass media denotes a section of the media specifically envisioned and designed to reach a very large audience such as the population of a nation state.

Radio

Radio is a wireless transmission of signals through free space by electromagnetic radiation of a frequency. The radio frequency range from about 30 kHz to 300 GHz. it consists of radio waves that travel by means of oscillating electromagnetic fields that pass through the air and the vacuum of space.

Community Radio

Community based media structures are best defined in terms of its mission: there are those that seek to reach out to geographical communities i.e. townships, villages, suburb, town, market, university or communities of interest i.e. ethnicity, occupation, region, sexual orientation or students.

A community radio is a radio service offering a third model of radio broadcasting in addition to the commercial and public broadcasting. Community radios serve geographic communities of interest. In this case, Koch FM serves the interests of the Korogocho community within the Korogocho Urban Slums in Nairobi.

They broadcast content that is popular and relevant to a local, specific audience but is often overlooked by commercial or mass-media broadcasters. Community radio stations are operated, owned, and influenced by the communities they serve. They are generally non-profit and provide a mechanism for enabling individuals, groups, and communities to tell their own stories, to share experiences and, in a media-rich world, to become creators and contributors of media.

Non-communicable diseases

Non-communicable diseases, or NCDs, are medical conditions or diseases which by definition are non-infectious and non-transmissible among people. NCDs may be chronic diseases of long duration and slow progression, or they may result in more rapid death such as some types of sudden stroke. They include autoimmune diseases, heart disease, stroke, many cancers, asthma, diabetes, chronic kidney disease, osteoporosis, Alzheimer's disease, cataracts, and more.

Hypertension

Hypertension or high blood pressure is traditionally known as a persistent systolic blood pressure of greater than 140mmHg and/or diastolic blood pressure of greater than 90mmHg. More than 95 percent of people with hypertension have 'primary' or 'essential hypertension'. Lifestyle factors such as smoking, family history, obesity, diet and physical inactivity is risk factors for essential

hypertension. Currently, high blood pressure is a threat to human life in all age groups especially people in their 50s.

Cardiovascular Diseases

These are any disease that affects the cardiovascular system, principally cardiac disease, vascular diseases of the brain and kidney, and peripheral arterial disease. Cardiovascular disease is caused by diverse but atherosclerosis and/or hypertension are the most common. These illnesses are brought about by a number of physiological and morphological changes due to aging that alter cardiovascular function and lead to subsequently increased risk of cardiovascular disease, even in healthy asymptomatic individuals.

The ailments are also caused by disorders of the heart and blood vessels, and include coronary heart disease (heart attacks), cerebrovascular disease (stroke), raised blood pressure (hypertension), peripheral artery disease, rheumatic heart disease, congenital heart disease and heart failure. The major causes of cardiovascular diseases are tobacco use, physical inactivity, an unhealthy diet and harmful use of alcohol.

CHAPTER TWO: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.0 Introduction

This section examines literature on status on non-communicable diseases namely diabetes and hypertension in sub-Saharan Africa and Kenya. It also discusses various studies done on community radio and dissemination of health messages, particularly diabetes and hypertension, which are ravaging people in huge numbers. The chapter also focuses on theory which was utilized in the study; participatory theory.

2.1 Non-communicable diseases in sub-Saharan Africa

Generally, the health sectors in sub-Saharan Africa face constraints due to high demands in service provision. Traditionally, Africa has been the last major region in the world where the burden of infectious disease still outweighs the burden of non-communicable diseases and injuries while the rates of decline in fertility and mortality vary considerably across the region, at least one clear pattern is emerging that holds across most of Africa: a steady rise in non-communicable diseases (including cardio-metabolic and respiratory conditions as well as cancers) in the presence of significant, long-standing infectious disease prevalence. Like other parts of the world, the prevalence of hypertension and diabetes in the sub-Saharan Africa region has increased as a manifestation of the epidemiological transition. Hypertension has become a significant problem in many African countries experiencing the epidemiological transition from communicable to non-communicable diseases.

Non-communicable diseases currently contribute substantially to the burden of morbidity and mortality in adults. Age-specific levels of diabetes and hypertension in many urban areas of sub-

Saharan Africa are as high as, or higher than, those in most Western European countries (Edwards *et al.*, 2000; Mollentzeet *et al.*, 1995). In a demographic surveillance system in Tanzania Non-communicable diseases account for between one in six and one in three adult deaths (Setel *et al.*, 2000; Walker *et al.*, 2000), with age-specific death rates from non-specific, non-communicable diseases being as high or higher than in developed countries (Unwinet *et al.*, 1999).

APHRC Status Report on Hypertension in Africa 2013 highlights that currently, the worldwide burden of hypertension is greatest in LMICs where it affects about 1 in every 5 of the adult population and this is projected to increase by 2025, where 3 out of every 4 people with hypertension will be living in LMICs where more than 80 percent of the world population lives. These shocking statistics reveal a silent time bomb waiting to explode if emergency measures are not taken with immediate effect.

Similar, same concerns are echoed by the Global Status Report on non-communicable diseases 2010 which indicates that Non-communicable diseases (NCDs) are the leading causes of death globally, killing more people each year than all other causes combined. The report states that available data demonstrate that nearly 80% of NCD deaths occur in low- and middle-income countries. It further explains that despite their rapid growth and inequitable distribution, much of the human and social impact caused each year by NCD-related deaths could be averted through well-understood, cost-effective and feasible interventions.

2.2 Non-communicable diseases in Kenya

In Kenya, The Health Sector Working Group Report (2012), dubbed Medium term priorities and financial plan for the MTEF period 2012/13– 2014/15 indicates that even though there have been

great achievements in the health sector in Kenya, The current health information system is weak and cannot respond adequately to the immediate needs of policy makers and operational managers especially with regards to infrastructure, location, and services offered. This means that the media still remain key in giving health information to the general public as well as policy makers. The Health Sector Report (2012) further indicates that Kenya is confronted with several emerging health related issues. These life threatening ailments include high prevalence of non-communicable diseases (NCDs), whose socio-economic consequences would have both short-term and long-term implications on the Government and households. NCDs have not been given any priority in the list of needs yet they have been recognized to be fast increasing in the population. There are fears that with the high population growth of about 3 percent annually in Kenya, the population will continue to require huge service delivery from the health sector making Kenya not likely to achieve some Millennium Development Goals within the health sector by the year 2015.

The Daily Nation Newspaper reported that the youngest patient in Kenya is four months old. “Our biggest worry is that young people are increasing being diagnosed with diabetes which previously afflicted adults.(Ms Eva Muchemi, the executive director of Kenya Diabetes Management Information Center, Daily Nation, Wednesday June 12, 2013.pg 68)

According to the Status Report on Hypertension in Africa (2012) prepared for the 6th Session of the African Union Conference of Ministers of Health states that it is essential to develop and share best practices for affordable and effective community based programs in screening and treatment of hypertension. It further notes that in order to prevent and control hypertension and diabetes in the population, Africa needs policies developed and implemented through a multi-sectorial approach involving the Ministries of Health and other sectors including education,

agriculture, transport, finance among others including the ministry of information and communication where the media is a key partner.

2.3 Risk factors for diabetes and hypertension

Age, family history, ethnicity and lifestyle are non-modifiable risk factors of diabetes in Africa. Glucose intolerance in sub-Saharan Africa, as in other regions of the world. The prevalence increases with age in both men and women however, published studies lack uniformity on the age range in which the prevalence of diabetes is observed. In most developed communities, the peak of occurrence falls in the age group of 65 years or older whereas in developing countries it is in the age group 45 to 64, and in Sub-Saharan Africa it is in the age groups 20 to 44 and 45 to 64 years. Data from 12 other studies from sub-Saharan Africa indicate two peak age ranges of 45 to 64 and older than 65 years (King *et al.*, 1998). Diabetes and hypertension were previously regarded as diseases for the rich but the shift has been so drastic that no major explanation is given expect that this shift from the rich to the poorest of the poor has been because of lifestyle change among residents especially those in urban poor settlements.

Residence seems to be a major determinant of diabetes attributable to lifestyle changes associated with rapid urbanization and westernization. Urban lifestyle in Africa is characterized by changes in dietary habits involving an increase in the consumption of refined sugars and saturated fat and a reduction in fibre intake (Mennen *et al.*, 2000). An increase in fasting plasma glucose has been reported in those who have spent their lives in an urban environment, suggesting that both lifetime exposure to and recent migration to or current residence in an urban environment are potential risk factors for obesity and diabetes mellitus. The disease might

represent the cumulative effects over years of dietary changes, decrease in physical activity, and psychological stress (Sobngwi *et al.*, 2002).

Risk factors for hypertension include age, gender (male > female), ethnic origin, stress, sedentary lifestyle, degree of urbanization, family history, blood cholesterol, diabetes mellitus, pre-existing vascular diseases (Daniel and Rotimi, 2003; Burket, 2006) and diet (especially foods rich in fats (Beneret *et al.*, 2004), cholesterol (Njelekela *et al.*, 2001), carbohydrates, salt (Daniel and Rotimi, 2003). Age is most strongly related to systolic blood pressure and isolated systolic hypertension accounts for the vast majority of cases of uncontrolled hypertension in individuals >60 years of age (Franklin *et al.*, 2001). Elevated blood pressure is usually asymptomatic. Cerebrovascular disease and coronary artery disease are the most common causes of death in hypertension, although these patients are also prone to renal failure and peripheral vascular disease. Stroke, myocardial infarction and cardiovascular death cause mortality associated with high blood pressure (Haslett *et al.*, 1999).

2.4 Cardiovascular Health Issues

2.4.1 Hypertension

According to the NCDs status report (2012) Hypertension or sometimes called high blood pressure is the leading cause of cardiovascular diseases (CVD) worldwide. The burden has increased significantly from about 4.5 percent (nearly 1 billion adults) in 2000, to 7 percent in 2010. This makes hypertension the single most important cause of morbidity and mortality globally and highlights the urgent need of action to address the problem. One solution stands to be passing the right information to the right population especially in the informal settlement where the effects is deeply felt and urgent education through the community radio in Korogocho

and Viwandani in Nairobi will help give the community important information for, prevention, treatment and management for those who are already affected.

2.4.2 Hypertension in Low- and Middle-income Countries

Hypertension has been associated with the rich for a long time in the world. The situation has since changed and is increasingly emerging in low and middle-income countries (LMICs) because of scarce health resources and high burden of infectious diseases such as, HIV, Malaria and Tuberculosis. It is also important to note that in these countries, treatment and control of hypertension is very expensive.

At the moment, hypertension is greatly affecting LMICs where it affects about 1 in every 5 of the adult population. It is projected that by the year 2025, almost 3 out of 4 adult populations with hypertension will be living in LMICs where more than 80 percent of the world population lives. The absolute numbers affected by hypertension in LMICs are therefore considerably higher and are likely to increase as globalization and economic advancement usher in urbanization and longer life expectancy in these countries

2.4.3 Hypertension in Africa

Traditionally in Africa, communicable diseases and maternal, perinatal and nutritional causes of morbidity and mortality accounted for the greatest burden of morbidity and mortality (status report, 2012). The report further indicates that this burden is fast shifting towards chronic non-communicable diseases, and by extension CVDs. High blood pressure was almost non-existent in African societies in the first half of the twentieth century, estimates now show that in some

settings in Africa more than 40 percent of adults have hypertension and that the prevalence of hypertension has increased significantly over the past two to three decades. There were approximately 80 million adults with hypertension in sub-Saharan Africa in 2000 and projections based on current epidemiological data suggest that this figure will rise to 150 million by the year 2025.

Studies have shown that related complications of hypertension including strokes and heart failure are becoming increasingly more common in Africa due to the changes in individual and societal lifestyle which involves more tobacco use, excessive alcohol consumption, lack of physical activities and adoption of ‘Western’ diets that are high in salt, refined sugar and unhealthy fats and oils.

2.4.4 Diabetes

Recent research shows that diabetes is increasingly becoming a major health risk among the poor. A study conducted in Nairobi’s Korogocho and Viwandani slums by the African Population and Health Research Center (APHRC) indicates that about 18% of adults in the slums are either hypertensive or diabetic. Since these have long been considered lifestyle diseases associated with the rich, medical services to manage them are too expensive and remain out of reach for the poor. For instance, a dose of insulin costs Kshs. 500 at Kenyatta National Hospital (KNH). People from the slum settlements have to travel long distances to get the drugs from these facilities as they cannot access them from lower level facilities such as local health dispensaries like Markwak and Provide International clinics in Korogocho slums.

Majority of patients with diabetes are often unaware of their condition and are thus diagnosed in later stages when it is too late and life threatening complications such as kidney failure, heart attacks and blindness have set in. This calls for increased efforts to sensitize the public on the need for regular screening. Proper media messaging through the community radio platform existing in the Korogocho community is considered key in communicating the important research information to the community. A needs assessment conducted by APHRC in health centers that serve slum settlements also reveals a great need for training medical staff on diabetes screening and patient management. Most Hospital facilities in Kenya and in urban slums need trained personnel in basic blood testing for hypertension as part of a basic package by hospitals. A recent Health Sector Report (2012), the health sector faces new emerging issues including NCDs whose effect will be both short and long-term thus interfering with the socio-economic development of the nation. The same report further highlights government frustrations in lack of enough personnel, poor infrastructure and lack of adequate finances to carry out effective service delivery.

2.4.5 Heart diseases

According to a WHO on The Atlas of Heart Disease and Stroke (2012), every year, an estimated 17 million people die of CVDs, particularly heart attacks and stroke. Most of these deaths are caused by tobacco smoking, which increases the risk of dying from coronary heart disease and cerebrovascular disease 2–3 fold. Physical inactivity and unhealthy diet are other main risk factors which increase individual risks to cardiovascular diseases. One of the strategies to respond to the challenges to population health and well-being due to the global epidemic of heart attack and stroke is to provide actionable information for development and implementation of

appropriate policies. As part of such efforts, WHO in collaboration with the US Centers for Disease Control and Prevention (CDC) has produced for the wider audience.” The Atlas of Heart Disease and Stroke” Heart Diseases are closely related to CVDs and should be given greater highlight in coverage through the media and most importantly the community radio stations set up in communities like Koch FM.

2.5 Impact of diabetes and hypertension

Hypertension plays a major role in the development of cerebrovascular disease, ischemic heart disease, cardiac and renal failure. Treating hypertension has been associated with about a 40 % reduction in the risk of myocardial infarction (Collins *et al.*, 2000). Although the treatment of hypertension has been shown to prevent CVD and to extend and enhance life, hypertension remains inadequately managed everywhere (Klungel *et al.*, 1998). In addition, hypertension often co-exists with other cardiovascular risk factors such as tobacco use, diabetes, hyperlipidemia and obesity which compound the cardiovascular risk attributable to hypertension. Worldwide these cardiovascular risk factors are inadequately addressed in patients with hypertension resulting in high morbidity and mortality (Trilling and Froom, 2000).

Patients with diabetes mellitus are at increased risk of cardiovascular morbidity and mortality. The incidence of initial myocardial infarction has been shown to be much higher in individuals with diabetes relative to their non-diabetic counterparts (Haffner *et al.*, 1998). Adults who have diabetes are two to four times more likely to have heart disease or suffer a stroke than adults who do not have diabetes (Roman and Harris, 1997). Type II diabetes mellitus is associated with a cluster of lipid abnormalities: elevated plasma triglycerides, reduced HDL cholesterol, and

smaller and denser LDLs, which have been associated with an increased risk of cardiovascular disease (Krauss and Siri, 2004).

2.6 Practices and behavioural factors associated with diabetes and hypertension

High blood pressure is twice as common in adults who are overweight than in those who are at a healthy weight. Obesity is associated with elevated triglycerides (blood fat) and decreased HDL cholesterol ("good cholesterol"). A diet low in saturated fat and high in fruits, vegetables, and whole grains can help to decrease high blood pressure, or prevent its occurrence (Kaumudi, 1999). The incidence of hypertension in patients with diabetes is approximately two- fold higher than in age matched subjects without the condition. Normally, individuals with hypertension are at increased risk of developing diabetes compared with non-hypertensive persons. Furthermore, research indicates that up to 75% of cases of CVDs in patients with diabetes can be attributed to hypertension (Sowers, 2003). Individuals at risk of developing type II diabetes also benefit from physical activity as lifestyle interventions including physical activity have been shown to prevent or delay the onset of type II diabetes (Ratner *et al.*, 2005). The beneficial effects of physical activity are mediated through a lowering of blood pressure, increasing HDL cholesterol, reducing body fat and reducing insulin resistance (Gill and Malkova, 2006). There are more than one billion smokers worldwide, and 80 percent of them reside in developing countries. In Kenya, tobacco is used by 6 of every 10 men, 3 of every 10 women, and 4 of every 10 secondary school adolescents (Ogwell, 2002). Toxins in the blood from smoking cigarettes contribute to the development of atherosclerosis, a rise in blood pressure and increase in bad cholesterol. The cardiovascular burden of diabetes, especially in combination with smoking, has not been

effectively communicated to people with diabetes or to health care providers. There is little evidence that this risk factor is being addressed as consistently and comprehensively as would be desirable. Smoking is also related to the premature development of microvascular (Mennen et al., 2000). complications of diabetes and may even have a role in the development of type II diabetes (Haire-Joshu *et al.*, 1999). Non-adherence to prescribed medications can result in many problems, including poor blood pressure control, pathologic changes and signs and symptoms associated with worsening cardiac function, hospitalization, and mortality (Brown, 2003). The complexity of medication management for patients with heart failure poses a financial burden, especially on elderly patients. Drug costs are increasing at a rate greater than those of any other healthcare expenditure (Masoudi *et al.*, 2005). Reasons for poor compliance may include insufficient patient knowledge, inaccurate perceptions, medication cost, and side effects of therapy (Alexander *et al.*, 2003). Increasing evidence supports the use of strategies to enhance self-efficacy (the belief that one can follow the regimen) and therapeutic efficacy (the belief that the treatment actually works) as important factors to improve adherence (De Geest *et al.*, 1998). Thus, empowering patients with as much education and control as possible should improve adherence. Patients may be reluctant to tell a physician how often they miss a dose of medication or take the medication at the wrong time, yet researchers found that only 10% of patients were fully adherent (based on self-report) with medications as prescribed (Leventhal *et al.*, 2005).

2.7 Management of diabetes and hypertension

Various methods are available for management of diabetes including diet alone, oral hypoglycaemic compounds and insulin. Approximately 50% of new cases of diabetes can be controlled adequately by diet alone, 20-30% will need an oral hypoglycaemic compound and 20-

30% will require insulin. Regardless of aetiology, the type of treatment required is determined by the circulating plasma insulin concentration which is closely related to the weight and age of the diabetic patient. Trials comparing anti hypersensitive drugs have shown no consistent or important differences in outcome, efficacy, side effects or quality of life. The choice of the hypertensive therapy is therefore usually dictated by the cost, convenience, the response to treatment and freedom from side-effects (Christopher *et al.*, 2002).

2.8 The challenges

The challenges to care for diabetic patients encompass many areas of African life. These challenges include an unsettled political situation that interferes with organizing a diabetes control program; illiteracy due to lack of access to education and relevant information; poor housing; poverty; daily chores required for girls; and living on the streets, mostly related to boys. The challenges are also intertwined with cultural and economic issues. Care is further affected by the fact that health professionals are often not trained to address chronic diseases; there is a lack of interest on the part of health professionals because the disease is very demanding with few financial rewards; hospitals are overburdened; and there is a reliance on African traditional medicine (Beran *et al.*, 2005). In some countries including Kenya insulin is subsidized by the government and sold to patients at a reduced price. However, subsidized or free supplies often run out or are not distributed well on a local level, forcing patients to purchase insulin through private wholesalers, where the price can be as much as 67% more expensive than the price at public centres. Besides challenges related to diagnosis, care and treatment, there is a lack of understanding and knowledge about the disease among healthcare professionals and the general population, and a perception that diabetes is not as critical as other diseases affecting the

continent (Yudkin, 2000). Knowledge can be provided by the media and in this case Koch FM can be used to educate the masses on general information about diabetes and hypertension.

Primary prevention is one major strategy to reduce the development of cardiovascular diseases specifically through lifestyle interventions that promote heart-healthy behaviours. Information provision through the media will be key in educating people to seek for early medication on CVDs. Since current research suggests that cardiovascular risk factors in childhood predict adult heart disease, it is imperative that attention to reducing such cardiovascular risk factors in children (not just older people) is given (Berenson, 1987). Intervention studies in children and adolescents show that these lifestyle-risk factors are controllable through education and dietary counselling of the individuals and their family. High risk drinking has negative effects on peoples' health in a number of ways. Among other things, it increases the risk for hypertension, liver damage, pancreatic damage, hormonal problems and heart disease (Norton *et al.*, 2006). Hence a better awareness through education can lead to an improvement in coronary care.

2.9 Community Radio in Kenya

The process of democratizing Africa and in this case Kenya contributed to the emergence of media mediums in the process of ending state monopolies on the airwaves and calls for removal of obstacles to the domestic free flow of information, censorship, confiscation, temporary suspensions or permanent bans of the media for several years. “ In the calls for the liberalized media sector therefore, community media has acquired a special place as one form of independent capable of involving community managed and more interactive communication and programming of issues on public awareness and human activity. “ Grace Githaiga, the

National Coordinator of the Kenya Community Media Network (Media culture and performance in Kenya, 2000).

Reasons for the emergence of the community media

1. The narrow focus on contemporary African Media practice and its tendency of giving wishy-washy treatment to issues of rural and impoverished communities.
2. The use of the old colonial language in traditional media practice at the expense of other African Languages.
3. The tendency of contemporary Africa media to perpetuate western perceptions of socio-economic-political issues due to its heavy reliance on western news agencies and its failure to rely on the communities in question.

2.10 Koch FM

The Koch FM radio station is located in an urban slum called Korogocho slums and serves a radius of 5km. The broadcasting is done in both English and Kiswahili languages.

The first community radio station in Africa was established in Kenya in 1982. Organizations like EcoNews and the Kenya Community Media Network (KCOMNET) took a long time to advocate and lobby for legal reorganization of community radio station. A community radio in Homa Bay was shut down 1984 by a government concern that community media could worsen social and ethnic tensions (Githaiga, 2008) The Kenya Communications (Amendment) Act 2008 included, for the first time, a definition of a 'community broadcasting service'. In the past years there has been a lot of opposition towards community media from the commercial sector as the community stations were seen as competitors of both information and 'money'. "The

commercial radios thought that community radios were a threat and would be competing for the advertising cake. Legislators and regulators also lacked understanding and were also suspicious.” (Githaiga, 2009). The first community radio station in Nairobi, Koch FM, based in Korogocho informal settlement was established in 2006. According to the CCK, six FM stations have received permission to share the 99.9 frequency in Nairobi. This number represents half of all community radio stations which have already been granted frequencies in Kenya (Kandagor, 2008).

“Koch FM has been very instrumental in giving timely information on most important issues in the Korogocho community. This community has unique information needs which include health hazard outbreaks and thus the earlier such information is passed to the people the better for them to take precautions. Lack of clean water and crime are also very important issues communicated to the residents through this medium.” Doreen Mwasi, a senior editor at the station, interviewed, May, 2013). She further pointed out that most such stations are funded by non-governmental organizations (NGOs), both international and local thus making the commercial industry think that their reporting is biased. “The key role of community stations is community participation, which then make people in society own their news and information from the community stations because they form part of that information.” (Doreen, interviewed May, 2013)

2.11 Radio and information dissemination

Radio is a widely used medium in many aspects among them easy to operate, affordable, portable and use of simple language and sometimes with diverse ethnicities. Radio as a communication tool disseminates information to the people of a community. The right to information is the first and the foremost requirement of the people to do their democratic,

economic and social duties. The press provides the information to the public in the most eminent way. Koch FM in this case runs familiar programs within the Korogocho community Relevant programming ensure effective communication thus educating the mass population on health related issues and especially non-communicable diseases on prevention, treatments and measures to help individuals change their lifestyle.

The thought that radio might be a great tool of communication and popular participation was first endorsed by Bertolt Brecht in 1930. “Radio could be the most wonderful public communication system imaginable, a gigantic system of channels – could be, that is, if it were capable not only of transmitting but of receiving, of making listeners hear but also speak, not of isolating them but of connecting them” (Lewis and Booth, 1989). Radio was first heard in Latin America, Bolivian miners’ radio went on air in 1948 in Cancaniri. It is the first documented example of radio as a genuine community communication tool (Alumuku, 2006; Lewis and Booth, 1989). From this example, we can always equate radio to a community based communication tool since the audience is highly segmented.

2.12 Theory

Guided by participatory theory, this study examined the extent to which effective health messages and programmes are communicated to the people of Korogocho through the Koch FM radio station for positive behavior change in the community. The research further sought to find out whether the radio station engaged the community in any way to help design their programming.

2.12.1 Participatory Theory

Participation necessitates listening and trust thus reducing social distance between communicators and receivers, between teachers and learners, between leaders and followers as well as facilitates a more equitable exchange of ideas, knowledge and experiences. However, the need to listen is not limited to those at the receiving end. It must involve the governments as well as the citizens, the poor as well as the rich, the planners and administrators as well as their targets.

The theory emerged in the 1920s with the need to pursue better ways of solving human problems. New technologies emerge with different levels of making life easy and approachable. In 1927 a German author Bertolt Brecht formulated a “radio theory” which he hoped to transform radio from a channel of distribution to a medium of communication that involves more participants in a dialogue. He saw the radio, as a *dialogical instrument for change*: “Change this apparatus over from distribution to communication... On this principle the radio should step out of the supply business and organize its listeners as suppliers” (Brecht 1927). The World Bank working paper no. 170 indicates that it was in many ways a precursor to the theory and practice of participatory communication, as well as of interactive media such as the internet. In the years that followed Brecht’s early vision, the radio lost its dialogic potential as it developed into a mass mediated broadcasting instrument. However, today’s rapid spread of community radio, as well as the growth of digital radio and interactive radio programme formats, revives the participatory potential of radio technology. He posed two core visions in the technologies being utilized in today’s communication as , technologies possesses the potential to improve the lives of many people by giving them a voice; second, his groundwork laid out the educational

principles inherent in many of today's participatory communication models dialogical communication is also highly achieved in the model.

The theory is in agreement with the study which seeks to involve participants in news making as they look forward to listening to what they participated in designing and producing than what has just been retrieved and brought to them to listen. The community appreciate listening to their own voices and owning the programmes aired by the community station. Contributing to information dissemination through interviews by residents or their opinion leaders like area chief increases the listenership to programmes aired by Koch FM.

CHAPTER THREE: METHODOLOGY

3.0 Introduction

This chapter covered research design, study population, population sample, sampling techniques, research instruments, instrument quality control, data collection and data management and analysis. The researcher used focus group discussions (FGD) and questionnaires for data collection. FGDs were the main method of data collection from diabetes and hypertension patients while questionnaires were administered to journalists at Koch FM.

This section also elaborates on study participants and how they were involved as well as touching on ethical considerations of the research work.

3.1 Research Design

To meet objectives and answer research questions of the study, the study employed descriptive survey research design targeting a purposively sampled population of 50 individuals living in Korogocho slums both male and female aged 35 and above. The individuals were picked randomly from those already receiving treatment at Makwak clinic or Provide International health centers. These individuals were identified through an APHRC study which has patients attending CVD clinics in Korogocho slums. The study also engaged 8 Koch FM journalists through a questionnaire.

Survey design was used because of its descriptive nature that helps in learning peoples' attitudes, beliefs, values, behaviour, opinions, habits and desires. It would also help coverage of a wide area using representative samples.

This is supported by Krathwohl (1997) who argued that a survey design is used to gather data from a carefully selected sample of a population, all of whom are considered informants and extrapolate their responses to the population.

A survey study is appropriate in establishing relationship between variables and in facilitating collection of current information. This research adopted a survey research design. The survey design enabled collection of discrete numerical data from the population in order to provide factual descriptive information. Survey was also appropriate for this study because it enables one to collect data at a particular point in time. It was also be appropriate for this study since it enabled determination of relationships that can be compared and relationships that exist in the population in terms of attitudes, opinions, values, needs, behaviour change among others.

3.2 Research Site and Rationale

The study was conducted at Korogocho slums located to the East of Nairobi, the capital city of Kenya with a total population of over 100, 000 as indicated by the National Population Census 2009, and a CVD survey site with a total population of 41946 within an area of about 0.9 square Kilometres under surveillance as part of the Nairobi Urban Health and Demographic Surveillance System (NUHDSS).

The basis for choosing the research site was informed by an APHRC CVD study carried out in Korogocho slums since 2008 to date with a target population of over 5,000 people randomly selected adults from two informal slums Viwandani and Korogocho. The APHRC –NCD Report 2008-2009 indicate that the study used stratified sampling targeting 250 respondents in each stratum (sex-2, slum -2 age group -5) and due to a high number of patients outreach clinics were set up to which patients could be referred. The clinics have since been incorporated by the City

Council of Nairobi (CCN) and continue to offer treatment in Korogocho area. According to (Steven J.M. van de Vijver et al, 2013) The NUHDSS conducts four monthly visits to all households under surveillance to monitor demographic trends including births, deaths, and migration. The initiative has been there long enough and Korogocho is the only location in urban slums considered to have health systems in place to address the rise of the CVD ailments and especially diabetes and hypertension.

3.3 Target Population

The research study targeted individuals who live in Korogocho slums aged 35 years and above because they are more likely to have diabetes or hypertension. Currently, the total population of people living in Korogocho is about 100,000 (National Population Census, 2009) The population of interest comprised of diabetes and hypertension patients living in Korogocho slums and attending CVD clinics at Provide International or Makwak clinics as mapped by APHRC' s CVD research. APHRC Research has been reaching a total population of 8380 of people suffering from diabetes and hypertension in Korogocho slums.

Two focus group discussions (FGD) comprising of 6 and 8 people respectively were conducted to survey the effectiveness of health messages disseminated through Koch FM. These FGDs provided in-depth information regarding priming of health messages, knowledge disseminated, language use and packaging of information within Koch FM.

The study evaluated community radio programmes and assessed how listeners benefit from health information aired by Koch FM to the community.

The study also used questionnaires to engage journalists on news and information gathering as well as packaging and dissemination criteria of health information on diabetes and hypertension on Koch FM.

3.3.1 The sample population

The sample population was residents living in Korogocho slums as guided by research from APHRC since identified patients go for check up and seek medication in identified clinics in Korogocho slums. Currently, a total of 525 patients are attending CVD clinics at Provide International courtesy of APHRC.

3.4 Sample Size and Sampling Procedures

There are various community radio stations in Nairobi i.e. Pamoja FM, Ghetto radio, Ghetto FM, Koch FM and Radio Jambo. Among these, Koch FM is located in Korogocho slums stationed at chief's camp. This study thus examined one community radio, Koch FM on non-communicable information packaging, programming and dissemination. The community radio station was selected by virtue of being based in the community and airing community related issues within Korogocho. The station broadcasts to a radius of 5km in air waves and covers Korogocho community, Dandora, Babadogo, Kariobangi, Huruma, Mathare, Komarocks, Kayole and Umoja estates in Nairobi.

3.4.1 Sample size

The sampling unit of this study was a radio jingle on non-communicable diseases played by Koch FM radio stations. The radio Jingle was played on November, 2012 in both English and Kiswahili languages.

English version of the radio jingle

Cardiovascular diseases (CVDs) such as high blood pressure and diabetes are a big problem in this community, and many people do not even know their health status. The African Population and Health Research Center (APHRC) will involve Community Health Workers (CHWs) in a door to door free screening of high blood pressure and healthy lifestyle counselling. Know your pressure today! (Source: Author - Deborah Mupusi, Communications Officer, APHRC, November, 2012)

This message is brought to you courtesy of APHRC

Kiswahili version of the radio jingle

Magonjwa yanayohusiana na moyo kama vile presha na kisukari ni tatizo kubwa katika jamii, na watu wengi hawajatambua hali zao za kiafya. Shirika la utafiti la Afya na Idadi ya watu (APHRC) watawashirikiana na wafanyi kazi wa jamii wa afya (Community Health Workers) kupima watu presha na kutoa ushauri wa manufaa kwa maisha ya kiafya nyumba kwa nyumba.

Ijue Afya yako leo!

Ujumbe huu unaletwa kwako kwa hisani ya shirika la utafiti la APHRC

(Source: Author - Deborah Mupusi, Communications Officer, APHRC, November, 2012)

The sample for the study was further drawn from previous studies conducted by APHRC on CVDs in Korogocho slums. According to the National Population Census, 2009), Korogocho slums has a total population of over 100,000 people and the study population as indicated by the demographic surveillance area is currently home to about 72,000 people of diverse ethnicities resident in about 30,000 households.

3.4.2 Sampling procedure

The study was purposive sampling by age of diabetes and hypertension patients and category of respondents, the study involved a stratified random sampling because of the two categories of respondents which include diabetes and hypertension patients attending clinics in Korogocho and journalists in Koch FM.

Purposive sampling is used in information-rich cases that manifest the phenomenon intensely, but not extremely and stratified purposeful cases which illustrates characteristics of particular sub-groups of interest and facilitates comparisons. In this study therefore, the diabetes and hypertension patients were divided in strata based on age of respondents and gender then systematically randomly sampled using clinic attendance registers. Random purposeful adds credibility to sample when potential purposeful sample is larger than one can handle (Patton, 1990).

3.5 Research Instruments

The study used of questionnaires with both closed and open ended questions. A total of 8 questionnaires will be distributed to 8 Koch FM journalists. The study also used a minimum of two focus group discussion among diabetes and hypertension patients in Korogocho slums aged 35 years and above as mapped by APHRC's CVD study and attending clinics for treatment.

3.5.1 Validity of the research instrument

The questionnaire was pilot tested and experts in communications and research reviewed the tool and gave feedback on their validity and effectiveness. They were then distributed to journalists in Koch FM station. Expert opinions and suggestions on the content and structure were included to improve the final draft of the instrument.

3.5.2 Pilot testing of instruments

Both guides FGD interview questions and questionnaires for journalists were pilot tested before being rolled out for constructive feedback from researchers and communication specialists and study respondents to ensure that the tools meet the standards for data collections and that they are effective for the study.

3.5.3 Data collection procedures and techniques

The study basically used primary data. The data was collected using questionnaires, FGDs and interview guides. Questionnaires were administered by the researcher and two research

assistants. Research assistants were briefed and/or trained. Those to be picked as assistants were from the local community with experience in conducting the CVD research with APHRC and thus they had knowledge about the area and the programme so as to enable effective administration of the questionnaires and data collection. This ensured that all the views of respondents are obtained and a higher response rate achieved. The researcher personally conducted FGDs and interviews.

3.6 Data Analysis

This study used both quantitative and qualitative data analysis. Qualitative data from interviews and FGDs, data was categorized into themes emerging from the study data and reconstructed into narratives written. This involved data organization into chosen categories and the generation of topics discussed in FGDs as well as type of questions responded to by the respondents, and then analysis and interpretation.

The Statistical Package for Social Sciences (SPSS) version 19 was used in the analysis of quantitative data into frequencies and percentages, and presented data into charts, figures, and tables for interpretation and presentation of the raw data done.

3.7 Ethical Consideration on Confidentiality and Informed Consent

The researcher upheld all ethical issues expected in the design, conduct, analysis and dissemination in the entire study. Participants were informed of the purpose of the research and asked for their consent prior to their participation in the study. Respondents were informed that participation in the study was voluntary and adequate measures had been considered and taken to

protect the confidentiality of respondents. This was achieved through discussing and seeking permission from the head of institution/clinic or from CVD patients. Permission was granted by APHRC through the head of the health challenges and systems where the CVD programmes are managed. Information about the study was availed to the potential participants to enable them give their full consent to participate in the study. For participants who did not understand English, a translation in Kiswahili was done all through the engagement. Accuracy standards were adhered to in the collection, analysis, and interpretation and reporting of the study findings. Ethics pertaining to academic writing and publishing were followed.

CHAPTER FOUR: ANALYSIS AND PRESENTATION OF DATA

4.0. Introduction

This chapter focuses on the results of the data collected from both questionnaires filled in by journalists and Focus Group Discussions (FGD) conducted in Korogocho slums among male and female patients suffering from diabetes and or hypertension ailments.

This study sought to find out a communication gap that existed in research on cardiovascular diseases in Korogocho slums, where CVD research has been conducted since 2008 by APHRC.

In particular, the research looked at how community radio Koch FM packages and disseminates health information on diabetes and hypertension to the community.

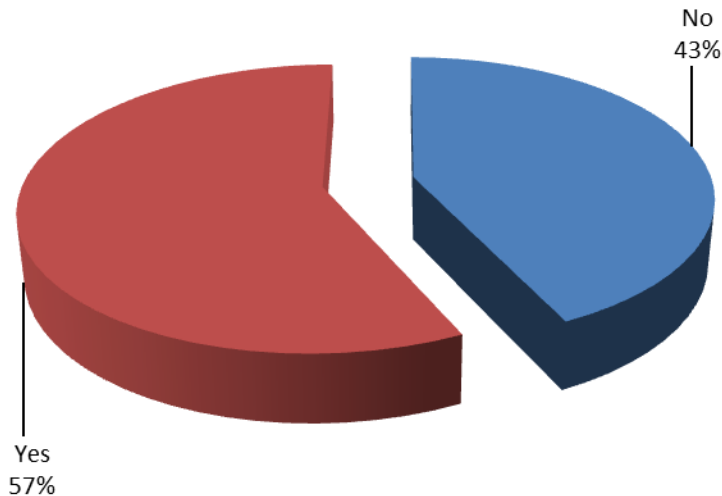
It also examined how the community uses information disseminated and how the messages impact people living with diabetes and or hypertension in Korogocho, priming of health news and programmes and language used by radio presenters in communicating to listeners.

4.1: Knowledge of Koch FM radio station among the CVD Patients in Korogocho Slums

Awareness is part and parcel of a community. If people are not aware of a radio programme, they are likely not to listen to it. It is with this reason that the research sought to find out how many CVD patients living in Korogocho slums knew that a radio station called Koch FM exists. Among the patients interviewed in the study, 78% had knowledge of the presence of Koch FM with 22% were not aware that such a station existed. (Respondent 2 Male in FGD A ... “No because I don’t have a radio”).

Further inquiries to find out if they actually listened to the radio stations revealed that only 57% of those interviewed were aware of the station listened to the programmes as shown in figure: 4.1 below

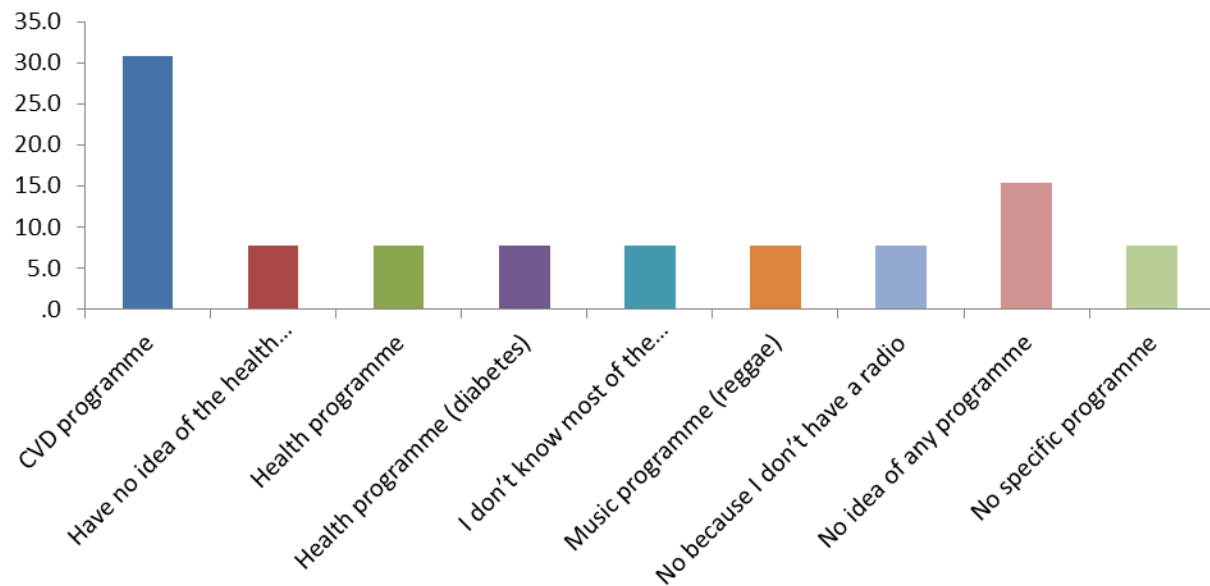
Fig: 4 1



During the Focus Group Discussions, CVD patients had various preferences of programme selection as others sighted challenges in accessing a radio since they did not have one. One participant indicated that he used his neighbour's radio whenever he wanted to listen to news and but he did not have an idea of when the health programmes were aired. Some listen to particular programmes like music and reggae and not health matters aired by the station.

Respondent 6 Male, 40 years old in FGD (A) ... "I listen to Koch FM's music programmes (reggae) because they entertain the youth using the local language...*Lugha ya mtaani* called slum *Sheng*".

Fig: 4 2:

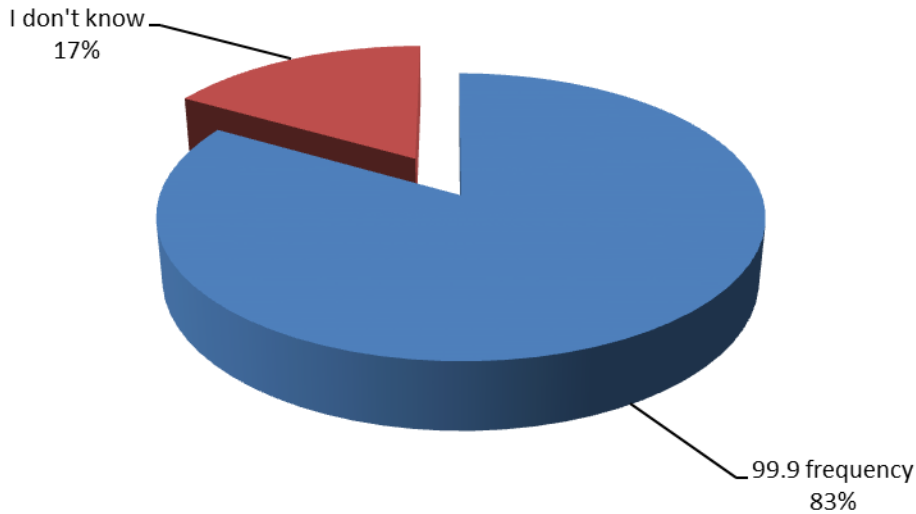


From Fig: 4.2 about 30% of FGD participants were aware that Koch FM aired a CVD programme. However, some people were not aware of any such like programmes. 83% of CVD patients with radios confirmed that they listen to Koch FM on 99.9 FM frequency in the area. Community awareness is key to information dissemination. If those being targeted by the messages are not aware of their existence, then information dissemination may be considered ineffective as it will not reach the intended audience.

A male respondent 6 ... had this to say in FGD (A) discussion in Korogocho slums *“I have a radio but I don't know most of the programmes and so in most cases I listen to what is on air when I tune my radio.”* His response demonstrated the need for creating awareness on various programmes aired on the radio, through community meetings which would be beneficial especially for CVD patients with radios but do know of a specific programme to tune into. CVD patients in FGD discussions (A) found out that 16% of the respondents had no idea of any health programme being aired by Koch FM radio station. However, there was a high level of awareness

of the radio station as 83% of those interviewed were aware of the Koch FM radio frequency to be 99.9 FM and indicated in the figure below.

Fig: 4 3



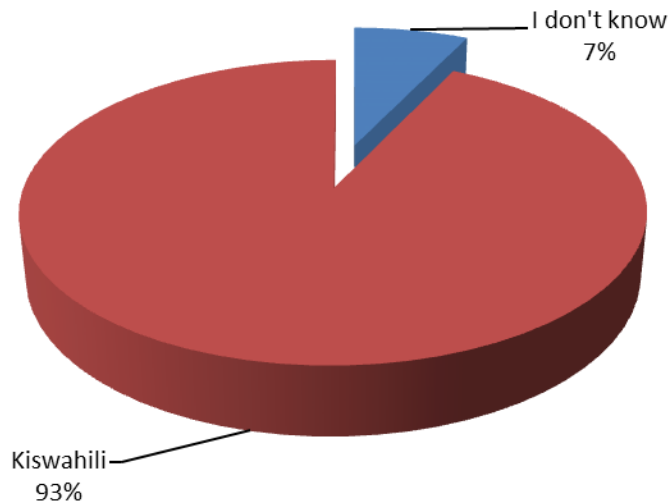
4.4 Language use in Koch FM

Korogocho slum is a residential area with a multicultural population consisting of all tribes and languages in the country. The research sought to find out if the language used in the station had any barriers in information uptake of diabetes and hypertension messages among the CVD patients interviewed.

The study revealed that 93% of those interviewed understood Kiswahili that is one of the official languages in Kenya and which the station uses in broadcasting their news and programmes (Fig 4.4 below). The findings also indicated that audience segmentation in the slum setting has been incorporated by the station through the use of *Sheng* which is a *slang*. *Sheng* was mostly used

during music time and especially when airing *reggae* music to attract the attention of the youth and *reggae* fans.

Fig: 4 4



A small number; 7%, as indicated in fig 4.4 above, represents those respondents who either did not have a radio or were not aware of a CVD health programme being aired by Koch FM radio station.

Those who knew about the programme acknowledged the role played by the media in educating the masses on important issues, including dissemination of health information. This was confirmed by respondent 6, male 64 years in FGD (B)... *“It helps us to know how to eat a balance diet and use drugs effectively to reduce diabetes”*

On seeking to find out what language journalists in Koch FM used to broadcast their programmes and news, 100% of the journalists interviewed said that they used the two languages; *Kiswahili* and *Sheng* to air programmes because most people understood them and could listen to the programmes and get the messages right.

According to a report on the way forward for community radios in Kenya, a proceedings of the national seminar held in Nairobi on 25-26th June 2008, “*Community radios usually broadcast in local languages of the communities that they serve. Community radio practitioners are conscious that language carries values in our society.*” This then opens discussion on whether the station should actually embrace vernacular languages for effective message penetration in the community.

4.5 Priming of Diabetes and of Hypertension Health Issues by Koch FM

Proper timing of information dissemination is a key factor, especially when reaching out to a specific target audience in a community. In slums, people are always busy at daytime searching for cash and food. They leave home early in the morning and return late at night.

For an effective dissemination of CVD health messages, journalists need to understand this so that they can target their audiences better, most of whom are people aged 35 years and above. The group in question is majorly affected by CVDs because of age and other reasons.

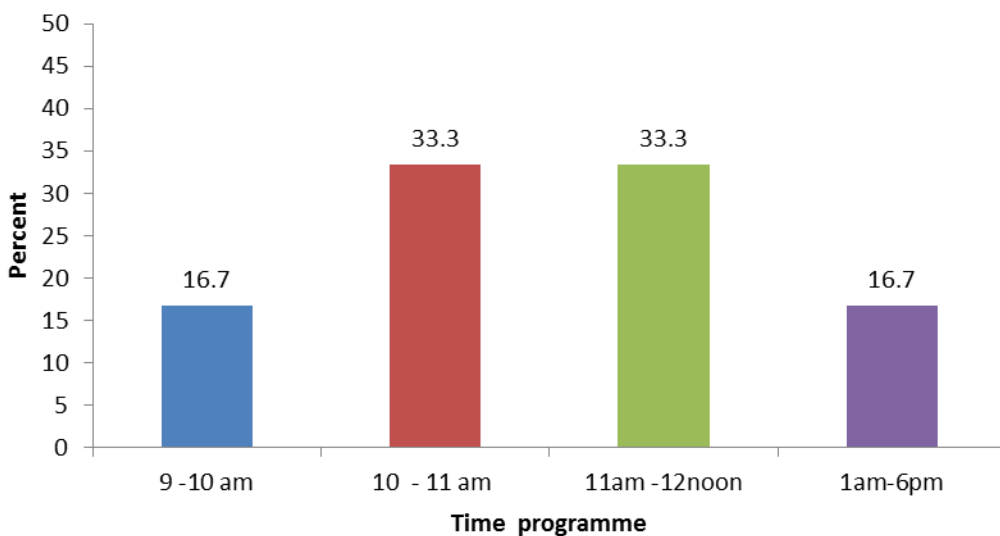
This research examined the extent to which the message is effectively disseminated to the Korogocho community and what the listenership of the programmes aired by Koch FM is. A specific question on priming for news and programmes was included in the questionnaire administered to Koch FM journalists as well as asked in the FGD forums conducted in the community.

Respondents in the FGD forums appeared to listen to news or any other radio programmes during night hours starting from 7pm, a time when they have returned home from their daily duties and are usually resting with their families.

Respondent 5 Male in FGD (A), 61 years old said that he suffers from hypertension and listens to health education aired on Koch FM station... “The health programme aired by Koch FM has helped me know how to live a healthy life.” This statement means that most people and especially CVD patients in Korogocho slums would highly benefit from information relayed to them through Koch FM radio station.

On the contrary, Fig: 4.5 below shows concentration on day time coverage overshadowing the night, which then means that most residents who reach home at night may not listen to most of the programmes as they reduce as shown towards the night. Research findings indicate that CVD programmes only cover 10% of programming, yet they are a worrying trend that requires a lot of attention in education, treatment and management.

Fig: 4 5



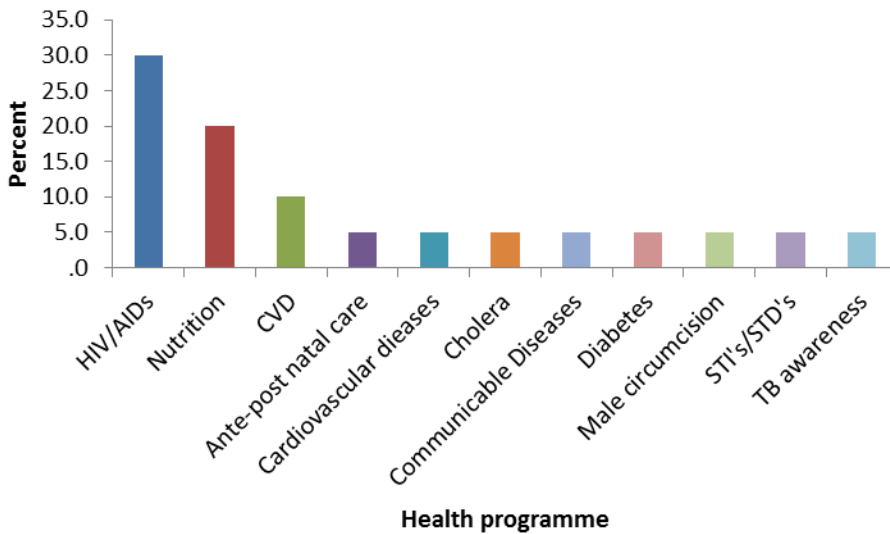
The research further found out that 80% of the people from the community listened to radio on Sundays because it is the day they go to church and spend time at home with their families. However, this was not the case in the stations perspective as most of the journalists were on off

on Sundays and mostly played music and entertainment programmes as opposed to educational issues related to health.

4.6 Type of Health Programmes Aired by Koch FM

Health issues are normally not given prominence in coverage by the media. In most cases journalists give a lot of concentration on politics forgetting that in fact health issues are most important as they affect peoples' lives. The research sought to find out the diversity of health programmes aired by Koch FM considering the community set up where diseases break out rate is rampant and unavoidable. The trend in coverage showed that HIV/AIDs had 30% coverage, followed by nutrition issues at 20% while CVD related matters came third at only 10% of the radio's air time. Other issues highlighted included cholera, male circumcision tuberculosis and sexually transmitted diseases awareness as shown in figure 4.6 below.

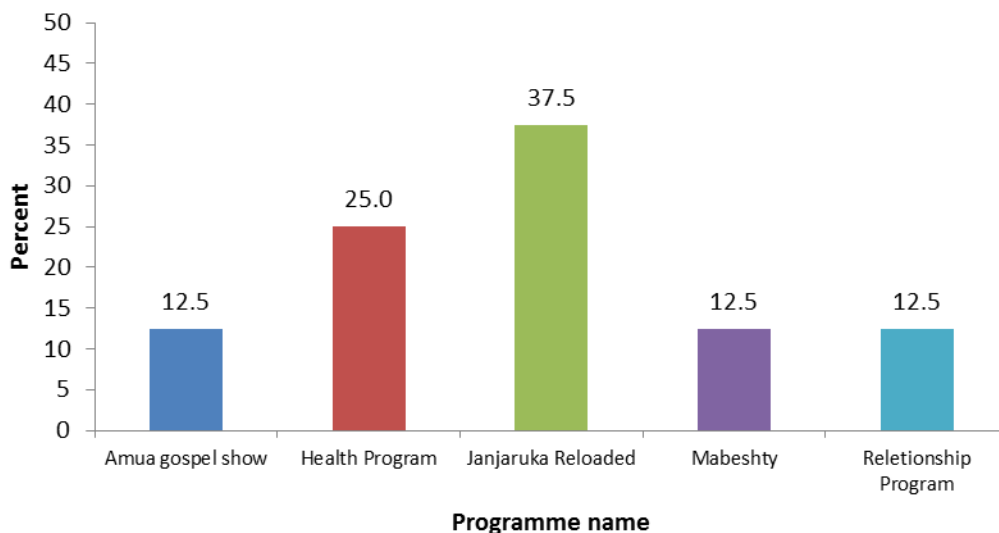
Fig: 4 6:



4.7: Types of programmes aired by Koch FM

Janjaruka Reloaded is an entertainment programme mostly targeting the youth and covers 37.5 % (Fig 4.7) of Koch FM station's airtime. The programme focuses on matters affecting young people in the slums, including job seeking, early marriages, early pregnancy and HIV/AIDs. Health programme follows closely at 25% and encompasses CVDs, HIV/AIDs, cancer and cholera issues and other disease outbreaks reported in the slums.

Fig: 4 7:

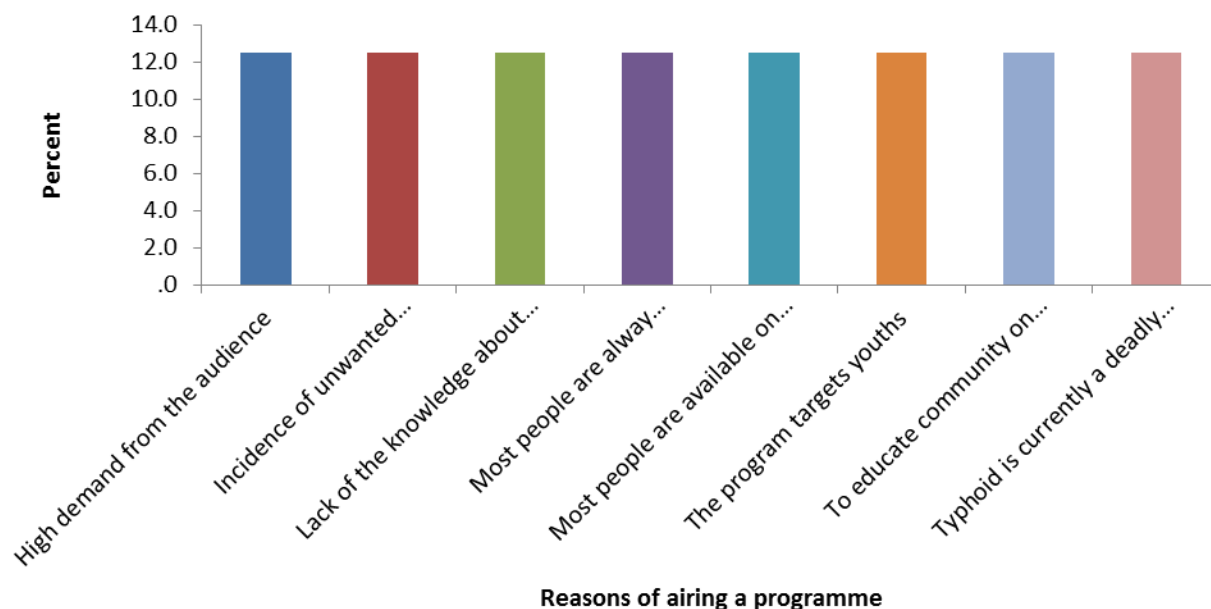


4.8 Community Participation in Radio Programming

According to Grace Githaiga, Executive Director, EcoNews Africa and the Africa Chair of the World Association of Community Broadcasters (AMARC), “community participation is at all levels namely ownership, management (through representative local management committees) and production vital. And special measures are often taken to ensure that those who are

historically disadvantaged or marginalised within that community for example, women, physically challenged can participate in full as well.” (Githaiga G, 2008)

Fig: 4. 8



This research examined the extent to which Koch FM radio station involved the participation of community members in designing their programmes. Koch FM sighted several ways in which they determined which information to air in health programmes. Most respondents had balanced views, at 12% of each reason given for selection of programme as indicated on the figure 4.8 above. Demand created by community members, which was determined by numbers of short text messages and phone calls to the station informed on a program demand by the community.

Table: 4 7

Reasons that informs your choice of topic in Koch FM	Frequency	Percent
Common issues affecting	3	33.3

people (e.g. outbreak of diseases and early pregnancies)		
Community outreach meetings with audience	1	11.1
Community participation; (through call in session, focus group discussions and community workshops)	1	11.1
Discuss common diseases which are rampant	2	22.2
feedback from listeners through telephone calls or text messages	1	11.1
International days themes related to health issues	1	11.1
Total	9	100.0

Participatory theory states that community participation necessitates listening and trust thus reducing social distance between communicators and receivers. In this case, Koch FM journalists show the extend of involving the community in table 4.9 above, which is a good sign for the community to own the programmes and buy-in to the messages being transmitted for great impact. It was evident that audience segmentation is real even in the slum communities as the

findings indicated that 7% of the respondents interviewed in the FGDs preferred *slang* language commonly known as Sheng in programme presentation and music. The station has embraced *slang* use in communication to respond to the needs of the community to satisfy audience demands. Was and means of topic selection in the station are well indicated in table. 4.9 above which elaborates the extent to which Koch FM radio station involves community participation in their programming.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter presents a summary of the findings of the study. The chapter tackles challenges in the health sector recommendations and the researcher and finally gives a conclusion.

5.1 Summary of the findings

The study set out to assess the place of community radio in dissemination of health information to the community for purposes of lifestyle change with particular focus to Koch FM, a community radio station stationed in Korogocho slums and broadcasting on 99.9 FM frequency. This research shows three major findings – (a) Diabetes and hypertension related health issues in Korogocho do not get prime time news coverage within the Koch FM radio station, (b) Language use on Koch FM influences listenership among CVD patients. (c) Research information on health issues is hardly given prominence on Koch FM.

5.1.1 Diabetes and hypertension related health issues coverage in Koch FM radio station

Diabetes and hypertension issues have been life threatening in the recent past. These two ailments are worst experienced in the slum environment like Korogocho slums because of health and food insecurity matters. Most people in the slums eat ready and fast foods made a long road sides, which in most cases are submerged into lots of cooking oil and lots of salts to make the food tasty.

Through health education done by community health workers as well as the radio stations, patients are now aware of some of these preventive measures confirmed by the FGD discussions when respondent 6 group A, male who is 40 years old said... “*Cardiovascular diseases can be managed by changing your lifestyle through watching what you eat and doing a lot of exercises.*” Many of such programmes were bound to make a great change in people lives in the community.

5.1.2 Language use influences listenership within the radio station in Korogocho FM

Communication is most effective when meaning is extracted from the message, understood well by the receiver and then feedback relayed to the sender. Research findings in this community showed that despite having a mixture of tribes, two languages namely Kiswahili and Sheng were preferred for effective communication by both health experts and the media. Further, interviews with the radio journalists indicated that indeed, they have adapted to the two common languages used in the community.

Language has emerged to be used to emphasise the seriousness of issues as *slang* or *sheng* language is mostly used during entertainment like playing music while Kiswahili is used during official communication when airing news and other programmes in the station.

5.1.3 Research news hardly makes news in the community radio stations

Politics has often taken center stage in the media in Kenya. This situation is not different in the community radio station. Koch FM is situated right at the Chief’s camp which is a political

office. However, journalists interviewed indicated that they have a balance of all issues in their programmes, since the research only sought to find out on the status of reporting health issues.

5.1.3 Community participation in Koch FM radio programming

This research found out that Koch FM radio station engages the community in programmes selection through various methods including phone-ins, text messages sent to the station, holding community forums to identify various issues affecting the community, workshops and community FGDs.

5.2 The Challenges

During this research, it was revealed that respondents had various challenges that must be addressed for effective communication. The community, in this case cardiovascular patients and Koch FM radio journalists raised some concerns as listed below:

- ❖ 20% of the participants did not have radios to listen to either news or any health programmes aired. However, they had different ways of getting information like through word of mouth, community health workers and doctors when they visited the area.
- ❖ 2% of the respondents said that as much as they understood Kiswahili, which is one of the two national languages in Kenya, they still preferred to have vernacular languages in the station since they grasped their own languages very quickly as compared to Kiswahili.
- ❖ 50% of the respondents did not listen to programmes aired by Koch FM radio station because of their timing. They said that during the day, they are always busy looking for

jobs in various industries and do not have time to tune to radios. Further inquiry on whether they had mobile phones, which had radio frequencies found out that most of them had feature phones which are not multifunctional.

- ❖ Koch FM radio journalists said that they experienced a lot of resistance in retrieving health records for gathering patients' information or statistics. They further said that health experts are always not available for interviews because of their busy schedules.
- ❖ Journalists pointed out that researchers are not easy to trace either. They said that researchers have a certain perception of mistrust to journalists and in most cases do to agree to be interviewed for fear of miss reporting.

5.3 Conclusions

Community radio is well recognised as a powerful vehicle for advocacy and social change in Africa (International Journal of Communication 5 (2011), 2035–2058). Research dissemination and feedback to the community in which research is conducted is normally important and key for impact and lifestyle change. Research findings from this study indeed proved that 7 out of 10 patients suffering are not aware of their status; this could be partly blamed on the mode of information dissemination to the community and how awareness is created. Though various modes of communication are available, this research has indicated that there is need for strategic planning in the means and ways which communication should be done for effective results and feedback. Radio as part of media, which reaches a big number of the population and the community radio being part of the media family, there is need to look at programming, priming of important information and involving the community in the setting of agendas, especially when tackling issues that affect the society.

This research further revealed from the FGD discussions that patients who were aware of health programmes and news broadcasted by Koch FM benefited much from basic education on prevention, treatment and management of their health status, particularly from CVD expert's interviews aired by the radio station. This indication confirms the role of the media as a medium of educating and informing the public on various public matters is real and important. The challenge in my view is how to properly package the message and pass it across to the right audience at the right time for maximum consumption.

This research study established that time in information dissemination and communication is a key factor. It emerged that audience segmentation in the slums has created various levels of information needs and thus creating a challenge in priming of information broadcasting in the area. Responded acknowledged the need for most programmes to be aired in the evenings and at night, yet the Koch FM station operates in the day. It is therefore important that the station re-looks at their programming schedule and adjust their programmes to give health information a high level of attention and especially more information on CVDs at prime time so as to benefit the audience.

Although most patients interviewed understood the languages used in the station, there is need to diversify and in cooperate vernacular languages to cater for a much older population in the ages of 60- 90 years that may not understand the modern languages used by Koch FM currently.

Listening patterns emerged to be impressive. Many of the patients who have radio sets seems to know that the station existed and actually some of them could tell of the frequency of broadcasting as 99.9 FM. This then displayed a high level of awareness of the station. The station's proximity is also favoured as it is located right within the Chief's camp. Most people

have the opportunity to interact with the journalists during Chief's barazas and other official functions.

The study points out on the need for more collaboration between health experts, journalists and the publics to be able to give comprehensive information on research conducted in communities like Koch FM that affects development and human health. Health experts working in government, private and non-governmental organization need to constantly engage with journalists to share information and statistics on the magnitude of CVDs challenges facing Kenyans and further discuss possible solutions of reducing them even using communication channels to create massive awareness on prevention, treatment and management of the ailments.

5.4 Recommendations

- This study points the need for Koch FM journalists to diversify on language use for programme packaging and production. Language selection came out strongly in the research as one of the key factors for effective message delivery in the community. While most journalists tend to go by the rules of the two official languages; English and Kiswahili in broadcasting in slum environment, there is an emerging audience that seem to go well with the *slang (sheng)* language mostly preferred by the youth in the community. Koch FM journalists need to find a way of in-cooperating special programmes broadcasted in *sheng* and other *vernacular* languages to cater for those specific audience groups.
- All players in the health sector including research experts, doctors, the community and the media need to coordinate properly for proper information gathering and fact findings

to strengthen the linkage between journalists and health experts for factual reporting and ease of dissemination of health messages.

- Radio programming in Koch FM need to extend coverage and priming of diabetes and hypertension health issues as APHRC (2008) revealed that 7 out of 10 CVD patients in Korogocho slums were not aware of their status.
- Koch FM needs to further involve the community and community leaders in information gathering and identification of programme subject for the audience to feel part and parcel of the programme since it is a community radio station and thus should focus more on highlighting the plight of the Korogocho residents.
- Koch FM journalists to factor in coverage of other emerging lifestyle diseases like cancer, which have become major health problems. Most respondents did not have basic knowledge on certain health issues like doing exercises to prevent high blood pressure and diabetes that some said they learned from the media ie Koch FM radio station.

A female aged 54 years old respondent 8 in group B of the FGDs said... “A *hypertensive person has high blood pressure and should do a lot of exercises and avoid weight gain.*”

This she said that she learned from the radio station.

5.5 Suggestion for further research

There is need to conduct further research on the role played by experts in health science reporting and information dissemination. The research should be able to identify gaps that exist between journalists/communication experts and researchers/doctors in health information packaging and dissemination to the public.

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APPENDICES

APPENDIX I: FOCUS GROUP DISCUSSIONS (FGD) GUIDE

FOCUS GROUP DISCUSSION FOR CARDIOVASCULAR DISEASES (CVD) PATIENTS IN KOROGOCHO SLUMS, NAIROBI

I am a final year student from Nairobi University in the School of Journalism pursuing a Masters of Art in Communications degree. As part of my course requirement, I'm undertaking a research titled "THE PLACE OF COMMUNITY RADIO IN PACKAGING AND DISSEMINATING HEALTH MESSAGES ON NON COMMUNICABLE DISEASES IN SLUMS: A CASE STUDY OF KOCH FM". In this regard, you are kindly requested to support this research by responding to the questions below. Please note that your responses will be treated with the highest level of confidentiality. I therefore ask for your permission to proceed with the research question below:

Code No: _ (A) ___ and (B_) _

- 1) Have you heard about a radio station called Koch FM?
- 2) Do you listen to Koch FM's health programme (what is the name)?
- 3) What frequency is Koch FM broadcasting?
- 4) What do they talk about in the CVD programme?
- 5) Did you find the information useful?
- 6) Do you understand the language they use in the programme?

- 7) Tell me something about hypertension and or diabetes?
- 8) What kind of people do the diseases affect?
- 9) Did you learn that from radio?
- 10) Is there any other radio station which you listen to that disseminates health messages?
- 11) What health matters would you want to be covered in the radio?
- 12) What should you do to avoid getting diabetes or hypertension?
- 13) What should you do on when you are hypertensive and diabetic?

APPENDIX II: QUESTIONNAIRE

QUESTIONNAIRE

(To be administered to KOCH FM journalists in Korogocho FM - Producer(s), Presenters, and reporters.

I am a final year student from Nairobi University in the School of Journalism pursuing a Masters of Art in Communications degree. As part of my course requirement, I'm undertaking a research titled "THE PLACE OF COMMUNITY RADIO IN PACKAGING AND DISSEMINATING HEALTH MESSAGES ON NON COMMUNICABLE DISEASES IN SLUMS: A CASE STUDY OF KOCH FM". In this regard, you are kindly requested to support this research by responding to the questions below. Please note that your responses will be treated with the highest level of confidentiality.

SECTION A. Personal Information (Tick appropriate box)

Name (Optional).....

Gender Male [] Female []

Indicate your age bracket 20-30 [] 31-40 [] 41-50 [] 51 and above

SECTION B: KOCH FM Programme Information (Tick appropriate box)

B1. Do you air or disseminate health stories in Koch FM?

1= Yes []

2= No []

B2. If yes in B1. above, which health programmes or/and stories do you air?

(i) _____

(ii) _____

Programme Name	Day aired		Give a reason for your answer

B3. Indicate the programmes and the days the programmes/stories are aired?

Programme Name	Day
----------------	-----

B4. Indicate the frequency of the programmes you run.

(i) _____

(ii) _____

(iii) _____

B4. Do you think the programmes are effective in communicating to all communities?

1=Yes []

2=No []

Give a reason for your answer in B3 above

B4. What time do you air the radio programme (Koch FM)? (Tick the correct answer)

1= 7am []

2=9am []

3= 1pm []

4=9pm []

5=Other (specify) _____

B5. Do you do research on health stories before airing programmes in the Koch FM radio station?

1=Yes []

2=No []

B6: What informs your choice of topic? Give a reason for your answer

SECTION C: COMMUNITY PARTICIPATION IN KOCH FM PROGRAMMES

Please tick only one option in this section

C1. Do you involve the Korogocho community in setting the news agenda? Yes [] No []

If yes in C1 above, please explain how. If no, please give reasons why?

C2. How often do you interview experts on Cardiovascular Diseases i.e. diabetes and hypertension in your live shows?

1=Weekly []

2= Monthly []

3= Quarterly []

4=Annually

[]

C3. Which language do you use to air your programmes?

1= English

2= Kiswahili

3=Others (Specify.....)

C4. Do you have an idea of your listenership? Please explain how you track the statistics

C5. What are the challenges you experience in gathering health related information? Please state/indicate them

Please give suggestions on how you would like the challenges solved.

C6. Do you allow listener's to call in and ask questions?

If yes above, what kind issues do many ask about?

APPENDIX III: GANTT CHART

ACTIVITY	DECEMBER 2012	APRIL 2013	MAY 2013	JUNE 2013	JUNE- JULY 2013
Project Proposal					
Formulation of Questionnaires					
Pilot study					
Data collection					
Data analysis and report writing					
Submission of final report					

APPENDIX IV: RESEARCH BUDGET

	Item	Cost per item	Total (in Kes.)
1	Printing and binding of draft copies for defense purposes	6 copies @400	2,400.00
2	Printing (questionnaires)	60 copies/ 3 page @ 10 per copy	1800.00
3	Transport to Korogocho Slums	5,000	5,000.00
4	Meetings with the supervisor	200 per trip	6,000.00
5	Communication(Airtime and internet)		5,000.00
6	Printing of final documents and binding for submission	6 copies @1,100	6,600.00
7	Miscellaneous		3,000.00
	Total		28,000.00

