

Assessing the Progression Levels of The National Health Indicators with Sustainable Development Goal 3. A Case Study of Kitwe Town.

Author Name: Masaiti Sema

School: Business/Humanities

Information and Communication University (ICU)

Lusaka Zambia

semamasaiti.sm@gmail.com

Co-author: Marvin Kabubi

School: Business/Humanities

Information and Communication University (ICU)

Lusaka Zambia

marvinkabubi@ymail.com

Abstract

Despite progress made in reducing maternal and child mortality rates, Zambia remains a country with a high disease burden which is under significant pressure to improve the health status of the people. This National Health Strategic Plan (NHSP) supports the National Vision 2030 which expresses the Zambian people's aspiration "to become a prosperous middle-income nation by 2030." This plan identifies strategies to significantly reduce the disease burden and accelerate the attainment of the Sustainable Development Goals. The NHSP 2017-2021 interventions, which are aimed at reaching desired outcomes and targets, will be measured using a set of annual and periodic indicators that have been developed through consultations with all stakeholders. Government and partners have worked together to elaborate frameworks to guide interpretation of Universal Health Coverage (UHC) and SDGs. The guiding principle of the health delivery system in Zambia is the provision of equity of access to cost effective quality health care as close to the family as possible. In its quest to attain the highest standard of health for the Zambian people. The health sector in Zambia strives to attain universal health coverage. With regards to the topic, "assessing the progression levels of the national health indicators with sustainable development goal 3," during the course of MDGs from 2000 to 2015, there has been slow progress in the promotion of good health, specifically in reducing the spread of HIV/AIDS and

eradication of TB, Malaria and other deadly diseases. These indicators, which are important for measuring the health sector's performance, are consistent with 7NDP indicators and have been informed by the country's long-term vision and strategic direction (Vision 2030 and SDGs). The aim of this study is to assess Progression Levels of the National Health Indicators with Sustainable Development Goal 3. This was a micro study, analytic, non-experimental, and utilized secondary data from various sources related to this study. In analysis, SPSS was used. The findings reveal that communicable diseases such as HIV/AIDS, Malaria, and TB is still a major problem in Zambia, malaria is still the number one killer disease and claims more lives than any other disease, especially among pregnant women and under-five children are more vulnerable to the infection. For the country to achieve its health strategic goals before 2030, the health statistical indicators such as levels of HIV/AIDS, TB, Malaria, Cancer, Maternal mortalities, Infant mortalities, Non-communicable diseases, Road traffic accidents have to be low as possible. From the findings in this research, the most age which is vulnerable to infection of HIV/AIDS is from 25 to 40, this is the most productive age in the economy. Higher increase of HIV/AIDS death rates to this age will mean low productivity in the economy.

Key words: Sustainable Development Goals, Non-Communicable Disease, Communicable Disease.

INTRODUCTION

Overview

Chapter one presents the background, historical perspective, and definition of the concept, significance of the study, research objectives and questions. This chapter provides the context of the statement of the problem upon which the research study will be anchored.

Background

The sustainable development goals are a blueprint to achieve a better and more sustainable future for all. They address the national challenges we face including those related to poverty, health and other human needs. The SDGs are an evolutionary step from the MDGs which promote progressive ideas in national policy implementation in developing countries. The SDGs replace the MDGs which were adopted in the year 2000 with the aim of achieving them by 2015. The National Health Strategic Plan 2017-2021 makes provision for delivering the unfinished MDGs agenda and implementation of the 2030 Sustainable Development Goals (SDGs). Government and partners have worked together to elaborate frameworks to guide interpretation of Universal Health Coverage (UHC) and SDGs. “Zambia’s health system has been decentralized to district and hospital levels. The Provincial Medical Office, second- and third-level hospitals and central hospitals, DHOs, and training schools receive funds directly from Ministry of Finance (MOF). The GRZ has in its new constitution added decentralization as one of the ways to develop the local levels. Decentralization will be by devolution where local government authorities will be responsible for delivering public services in local health, primary education, agriculture extension and livestock, water

supply, and local road maintenance The MOH will retain such functions as policy formulation and guidance; monitoring and evaluation; and donor coordination. At the district level, the MOH will provide technical guidance on quality of care, planning, health facility management, good governance, human resources, and rational use of drugs. The central level will also play the role of provision of standards in construction and renovation of health infrastructure and in-service training of health workers. The districts are responsible for administrative supervision of health facilities and data compilation, which will be shared with the MOH.” (Bweupe, D. M 2016) The guiding principle of the health delivery system in Zambia is the provision of equity of access to cost effective quality health care as close to the family as possible. In its quest to attain the highest standard of health for the Zambian people, the health sector in Zambia strives to attain universal health coverage. With regards to the topic, during the course of MDGs from 2000 to 2015, there has been slow progress in the promotion of good health, specifically in reducing the spread of HIV/AIDS and eradication of TB, Malaria and other deadly diseases. Statistical finding by the Zambia Demographic and health survey shows that the HIV/AIDS prevalence keeps on increasing especially in Lusaka, Copperbelt, central western and southern province with Munchiga and north western province recording the lowest rate. The report further says that Zambia has one of the highest HIV burdens in Sub-Saharan Africa. More than 16 million people are at risk of malaria in Zambia. It is estimated that in 2015, there were over 5 million malaria cases. Malaria has continued to be the number one killer disease in Zambia especially to children below the age of 15, with one in five children under age five infected with malaria parasites, and other vulnerable population groups at risk. Reported malaria deaths

have dramatically decreased in Zambia over the past ten years, though more than 2,000 deaths are still reported annually. Health policies in Zambia are modelled along the national health vision of “equity of access to, cost-effective and affordable health services, as close to the family as possible”. The National Health Policy outlines the country’s commitment to realize the human rights of all. All key policies and strategies focus on ensuring equitable access to primary health care services and addressing the social determinants of health. The major challenges faced by the health system include: inadequate funding; critical shortages of health workers and sub-optimal distribution of available health workers; inadequate infrastructures and equipment; and weaknesses in the supply of drugs and other medical items. These challenges largely affect health service delivery, particularly in rural communities and for disadvantaged vulnerable population groups, such as women, children, and those that are differently abled. Primary Health Services in Zambia are free. (APPS.WHO, 2017)

After HIV/AIDS, Tuberculosis is the second most common cause of death from infectious disease. Tuberculosis is one of the world’s oldest known infectious diseases. The greatest proportion of deaths from TB occur in the African region, but the incidence of new cases there has begun to stabilize. Of African countries, Zambia has the sixth highest incidence. Tuberculosis (TB) infection is common in Zambia. Zambia, along with other countries in sub-Saharan Africa, has one of the highest rates of TB infection and is showing an increase in infection rate. Zambia is currently experiencing a high burden of non-communicable diseases (NCDs), with significant consequences on morbidity and mortality. The burden of NCDs in Zambia is increasing, with significant consequences on morbidity and mortality

levels. The most common NCDs in the country include, chronic respiratory diseases, cardiovascular diseases (CVDs), diabetes mellitus (Type II), cancers, epilepsy, mental illnesses, oral health, eye diseases, injuries (mostly due to road traffic accidents and burns) and sickle cell anemia. Most of these NCDs are associated with lifestyles, such as unhealthy diets, physical inactivity, alcohol and substance abuse and tobacco use. In the past, NCDs were more associated with the developed countries, but this is no longer the case, as developing countries, including Zambia, Until recently, NCDs were not adequately prioritized and supported, as much of the attention was placed on the communicable diseases, particularly HIV and AIDS, malaria, tuberculosis (TB) and sexually transmitted infections (STIs). However, NCDs have now been prioritized in the NHSP 2013-16 and the Sixth National Development Plan (SNDP) 2013-2016.

Statement of the Problem

Although the Zambian government has implemented health policies which attempt to provide primary health care systems that enable equal access for everyone, it is still not clear on the progression levels of the nation health indicators with SDG3, especially considering the statistical levels which show that Zambia has recorded a high burden of diseases which mainly characterized by high impact of disease particularly malaria, HIV/AIDS, STI and TB, also high maternal and child mortalities. The country is also faced with rapidly rising burden of non-communicable disease, including mental health, diabetes, cardiovascular disease etc. it is paramount of importance to look at the progression levels of these national health indicators if they are moving in line with SDG3 towards 2030.

Significance of the Study

- This study research will help to assess the progression levels of the national health indicators with sustainable development goal 3.
- The information will be useful as reference for future researchers.
- The information will be important for rationality in policy making.

Research Objective

General Objective:

- To analyze the progression levels of the national health indicators with the SDG3 towards 2030.
- **Specific Objective:**
- To evaluate statistical data which indicate progression levels in the health systems.
- To identify the key factors that slow down progression to the achievement of the national health goals.
- To identify stakeholders who play an important role in the promotion and progression of national health plans.
- To estimate government annual funds in the promotion of health strategies.

Research Question

- Which indicators help to evaluate the progression levels of health systems in Zambia?
- What are the main factors that slow down the rate of progression in the health sector towards the achievement of the SDG3 in Zambia?
- Which institution and organization advocate in the promotion of national health strategies?
- To what extent is government able to distribute its funds in the promotion of health systems?

Independent and Dependent Variables

The study focusses on government activities in the progression of health indicators by the year 2030.

Independent Variables

(Government activities, Health Institutions)

Dependent Variables

(Health indicators (Malaria, HIV/AIDS, TB etc.) SDG3)

Conceptual Framework

The conceptual framework has been constructed to show how government decision and action have towards the progress of national health systems towards the 2030. The progression depends on what policies government has implemented.

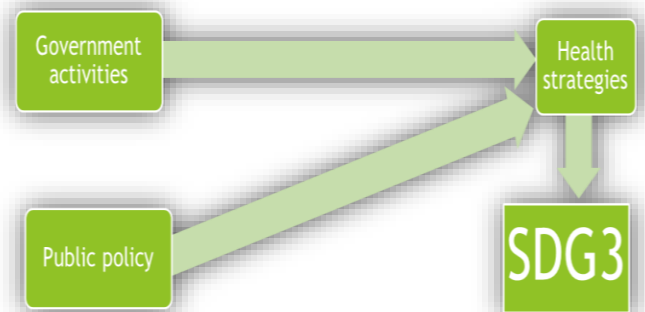


Figure 1. Author's source

LITERATURE REVIEW

Overview

In this section, literature from various studies relevant to the topic under study is reviewed. This chapter presents contains pieces of literature from various studies relating to the topic.

The process of selecting a global reference set of core health indicators is guided by the priority global monitoring requirements relating to health and health-related SDGs, universal health coverage and non-communicable diseases among others health priorities. The Global Reference List reflects indicators of relevance for country, regional and global reporting across the full spectrum of global health priorities, including the new and emerging priorities reflected in the health and health-related SDGS, such as universal health coverage, non-communicable diseases and other key health-related environmental, social, economic and behavioral risk factors. Many SDG indicators were part of the 2015 edition. Their metadata has been updated to ensure they are current with SDG definitions. Some of these changes are minor but there are a number of indicators with substantive changes, based on technical peer review. ‘‘Zambia has a high burden of disease, which is mainly characterized by high prevalence and impact of communicable diseases, particularly, malaria, HIV and AIDS, STIs, and TB, and high maternal, neonatal and child morbidities and mortalities. The country is also faced with a rapidly rising burden of non-communicable diseases, including mental health, diabetes, cardio-vesicular diseases and violence.’’ (Mate, M. 2010)Changes were made to their metadata for the following list of indicators., Life expectancy at birth, Adult mortality rate between 15 and 60 years of age, Under-five mortality rate, Infant mortality rate, Neonatal

mortality rate, Stillbirth rate, Maternal mortality ratio, TB mortality rate AIDS-related mortality rate, Malaria mortality rate, Premature non-communicable disease (NCD) mortality, Suicide rate, Death rate due to road traffic injuries, Adolescent birth rate, Total fertility rate. The Zambia Demographic and Health Survey (ZDHS) is a nationally representative sample survey of women and men of reproductive age. The main objective is to provide information on levels and trends in fertility, childhood mortality, use of family planning methods, maternal and child health indicators including HIV/AIDS. This information is necessary for program managers, policymakers, and implementers to monitor and evaluate the impact of existing programs and to design new initiatives for health policies in Zambia. ‘‘Since 1991 Zambia has been pursuing health reforms aimed at providing Zambians with equity of access to cost-effective, quality health care as close to the family as possible. The health reform process has involved sustained and purposeful change to improve the efficiency, equity and effectiveness of the health sector. However, the reforms have not had the intended impact of improving the overall performance of the health sector. The recent status report on the Millennium Development Goals indicates that while there has been some progress made, particularly in under-five mortality and HIV/AIDS, maternal mortality rates and the incidence of malaria, TB and other diseases are still relatively high, especially in rural areas¹. The report indicates that human resources constraints (e.g. the unavailability of trained staff, lack of supplies) are a key factor for the lack of improvement in overall health status.’’ (Banda, D. 2005). The Global Reference List reflects indicators of relevance for country, regional and global reporting across the full spectrum of global health priorities, including the new and emerging

priorities reflected in the health and health-related SDGs, such as universal health coverage, non-communicable diseases and other key health-related environmental, social, economic and behavioral risk factors. Many SDG indicators were part of the 2015 edition. Their metadata has been updated to ensure they are current with SDG definitions. Some of these changes are minor but there are a number of indicators with substantive changes, based on technical peer review. Changes were made to their metadata for the following list of indicators., Life expectancy at birth, Adult mortality rate between 15 and 60 years of age, Under-five mortality rate, Infant mortality rate, Neonatal mortality rate, Stillbirth rate, Maternal mortality ratio, TB mortality rate AIDS-related mortality rate, Malaria mortality rate, Premature non-communicable disease (NCD) mortality, Suicide rate, Death rate due to road traffic injuries, Adolescent birth rate, Total fertility rate. (Secretary-General, 2017)

Despite progress made in reducing maternal and child mortality rates, Zambia remains a country with a high disease burden which is under significant pressure to improve the health status of the people. This plan identifies strategies to significantly reduce the disease burden and accelerate the attainment of the Sustainable Development Goals. The plan is a major departure from the past strategic plans. While the plan recognizes that all health care interventions are important and should continue to receive support; it also recognizes that interventions must be prioritized due to the constraints on available resources and capabilities. “Health systems and funding, globally, almost 12 per cent of the world’s population (over 800 million people) spent at least one tenth of their household budgets to pay for health services in 2010, up from 9.7 per cent in 2000. Official development assistance (ODA) for basic

health from all donors increased by 41 per cent in real terms since 2010, reaching \$9.4 billion in 2016, Available data from 2005 to 2016 indicate that close to 45 per cent of all countries and 90 per cent of least developed countries (LDCs) have less than one physician per 1,000 people, and over 60 per cent have fewer than three nurses or midwives per 1,000 people.” (NATION, 2017)

The plan therefore focuses on Primary Health Care as the main vehicle of service delivery; resolving the human resource crisis; addressing public health problems and ensuring that priority systems and services receive the necessary support. The plan focuses on delivering quality health services across the continuum of care which includes promotive, preventive, curative, rehabilitative and palliative care. Provided as close to the family settings as possible. Therefore, this document emphasizes strong multi-sectorial collaboration to address all the social determinants of health. It is my considered view that – with appropriate levels of commitment and support from the Government, Cooperating Partners, health workers and other key stakeholders – this plan will significantly improve the health status of Zambians and significantly contribute to national development, therefore, urge all the people involved in the implementation of this plan to fully dedicate themselves to this important national assignment. The Ministry is committed to ensuring the successful implementation of this plan. (DSPACE, 2016)

Communicable diseases in Zambia

Communicable diseases along with maternal, perinatal and nutritional conditions in Zambia accounted for an estimated 64 per cent of all mortality in 2008. The prevalence of HIV in Zambia, as a percentage of population aged 15-49 years, stood at 12.7 per cent in 2012. There has been a gradual

and continuous decline in the prevalence of HIV since 1993. There were 2,976,395 reported cases of malaria in 2009.

Communicable diseases still constitute a major share of the disease burden affecting Zambians. Within the communicable diseases, HIV and AIDS is the main contributor representing around 65% of all deaths, while Malaria represents 12.5% and diarrheal diseases represent 12.9%. Tuberculosis represents 5.9 % of all deaths. In the following, an overview is given over the major disease groups. HIV and AIDS: Zambia has a generalized HIV epidemic influenced by structural factors such as gender-inequality, social norms that encourage multiple concurrent partnerships and unequal distribution of wealth. Malaria accounts for over 40 percent of all health facility visitations in Zambia and the disease poses a severe social and economic burden on communities living in endemic areas. The Indoor Residual Spraying (IRS) program covers 54% of the whole country. Sixty four percent (64%) of the households have at least one Insecticide Treated Nets (ITN), with 50% of the children under five and 46% of the pregnant women reporting to be sleeping under an ITN respectively (2010 Malaria Indicator Survey). The goal to achieve 'a malaria free Zambia' will need scaling up of evidence based targeted high impact interventions in respective epidemiological zones. As part of efforts to improve management of malaria the country has scaled up the use of rapid diagnostic tests (RDTs). Tuberculosis continues to be among the major public health problems in the country, partly as a consequence of HIV. The case detection rate for TB in 2009 was 58% and the treatment success rate was 86%. The TB situation has also been exacerbated by the high HIV co-infections, currently estimated at 70% of TB patients and the emerging Multi-Drug Resistant (MDR) TB cases. Zambia has

adopted the Stop TB Strategy for the control of tuberculosis. During the course of this Policy, the focus of the National TB and Leprosy Programme will be directed towards further strengthening and scaling up of the already proven interventions and any other evidence-based emerging interventions and approaches recommended by the WHO. The policy direction will focus on improving capacity to conduct surveillance, preparedness and control of epidemics at all levels. The number of deaths from malaria have fallen by around one-third in the decade 2001-11. In the period 1996-2012 there was a reduction of over a third in the estimated incidence of tuberculosis (TB). Estimated mortality (when mortality data excludes cases co-morbid with HIV) from the disease showed a decline in the period 1990-2012, more than halving over this time. In 2009 there were 4,702 reported cases of cholera, 681 reported cases of pertussis (whooping cough) and 371 reported cases of leprosy. (Online, Commonwealth 2018)

HIV/AIDS

The national adult HIV prevalence for Zambia is estimated at 16% with proportions of 18% for women and 13% for men. HIV prevalence ranges between 8% and 22%, with urban rates being about two times higher than the rural rates. About 1,000,000 Zambians are living with HIV/AIDS and an estimated 1.1 million orphans have either lost both or one parent largely due to AIDS mortality. Less than 5% of the Zambian population survives to old age (65 years and above). Current statistics show that HIV has spread to all parts of Zambia and very high prevalence levels of HIV are found in urban areas, and effects mostly adults in their prime productive and reproductive age groups of 25-39 years and all

sectors of the Zambian society. As a consequence, grandparents and children are caring for the sick adults and orphans instead of being cared for. (Central Statistics Office, 2009) Globally, the incidence of HIV declined from 0.40 to 0.26 per 1,000 uninfected people between 2005 and 2016. For women of reproductive age in sub-Saharan Africa, however, the rate is much higher, at 2.58 per 1,000 uninfected people. In 2016, 216 million cases of malaria were reported versus 210 million cases in 2013. There were 140 new cases of tuberculosis per 100,000 people in 2016 compared to 173 cases per 100,000 in 2000. Hepatitis B prevalence declined among children under 5— from 4.7 per cent in the pre-vaccine era to 1.3 per cent in 2015. In 2016, 1.5 billion people were reported to require mass or individual treatment and care for neglected tropical diseases, down from 1.6 billion in 2015 and 2 billion in 2010. Unsafe drinking water, unsafe sanitation and lack of hygiene continue to be major contributors to global mortality, resulting in about 870,000 deaths in 2016. These deaths were mainly caused by diarrhea diseases, but also from malnutrition and intestinal nematode infections.

Malaria

Malaria is a life-threatening disease caused by parasites that are transmitted to people through the bite of an infected female *Anopheles* mosquito. Once the parasite enters for blood stream it then finds its way to your liver where it multiplies, only once the parasite matures it enters your blood stream where it feeds on your red blood cells. The symptoms of malaria only start once the parasites have entered the blood. The malaria season follows the rainfall patterns in Zambia; thus, mosquito population starts to increase soon after the rains start in September-November, and malaria peaks in April-May and falls

off in June-July when the rains stop. Over the past 10 years, Zambia has implemented malaria control at various times with different effects depending on the available resources. Transmission also depends on climatic conditions that may affect the number and survival of mosquitoes, such as rainfall patterns, temperature and humidity. In many places, transmission is seasonal, with the peak during and just after the rainy season. Malaria epidemics can occur when climate and other conditions suddenly favour transmission in areas where people have little or no immunity to malaria. They can also occur when people with low immunity move into areas with intense malaria transmission, for instance to find work, or as refugees. Knowing the incidence rate of malaria is required for determining the need for treatment and services, particularly in more at-risk populations and in areas of limited resources. “Reported malaria deaths have dramatically decreased in Zambia over the past ten years, though more than 2,000 deaths are still reported annually. The malaria burden has markedly decreased with the massive scale-up of control efforts in the past decade, although the disease is still a major public health challenge in Zambia and remains endemic across all ten provinces. In Zambia there is a wide variation in infection prevalence, with different levels of transmission coexisting within communities in the same district and within districts in the same province. Malaria incidence has declined in some areas, but remains largely unchanged since 2010” (Centre, 2018). Changes in the incidence rate can indicate the burden of malaria on a population and allow for targeted interventions in high priority areas. Finally, it can help to judge the success of malaria control programs and their implementation. The malaria incidence rate is an indicator for monitoring Sustainable Development Goal 3: Health and Wellbeing; Target 3. By 2030, end the epidemics of

AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases. It is also part of the Global Strategy for Women's, Children's and Adolescents' Health (2016-2030) under Survive: End preventable deaths. A total of 3 783 deaths in children younger than 5 years were reported in 2007 compared to a baseline of 5 498 in 2001. In-patient malaria cases and deaths started to decline steadily from 2003 to 2004 after the introduction of accelerated malaria control activities in those years.

Tuberculosis

After HIV/AIDS, Tuberculosis is the second most common cause of death from infectious disease. Tuberculosis (TB) infection is common in Zambia. Zambia, along with other countries in sub-Saharan Africa, has one of the highest rates of TB infection and is showing an increase in infection rate. Tuberculosis (TB) incidence is the estimated number of new and relapse TB cases - specifically all forms of TB, including cases in people living with HIV infection - that arise in a specific year, expressed as a rate per 100,000 population. The rate of TB incidence is an indicator to monitor reductions in the number of cases of disease burden as part of the End TB Strategy, endorsed by the World Health Assembly in May 2014. Notifications of cases to national authorities are a good proxy for TB incidence in countries where there is little under-reporting of detected cases and where few cases go undiagnosed. This is an indicator for monitoring Sustainable Development Goal 3. Ensure healthy lives and promote well-being for all at all ages; Target 3.3: By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases During 1984-2005 the rate of

infection increased from 100 reports of infection per 100,000 people to 580 reports of infection out of 100,000 people. According to the WHO, Zambia is one of the 30 countries in the world with high TB and TB-HIV burden. Since 2000, Zambia has successfully implemented three national TB strategic plans. Based on the Global End TB Strategy and the NHSP, the MOH has started the process of developing its post-2015 End TB National Tuberculosis Strategic Plan. The plan will mark the beginning of efforts towards ending the TB epidemic by 2035. Depending on the progression of the disease, one or two of these drugs can be discontinued after treatment has begun lasted a couple months. There are better tests that allow for faster screening of drug resistant TB in the blood but it requires the use of laboratories, machines, and technicians that are not easily attainable by many developing nations including Zambia. Because of these limitations, TB can go undetected and untreated. Many who live in the more rural areas of Zambia don't have access to health services which allow the disease to go further undetected and untreated. Home-based care is currently low in Zambia and other African countries. Having increased government support of home-based care in Zambia could help in treatment of TB by teaching communities how to deal with the disease. This could be especially helpful to those living in the more rural areas of Zambia where treatment is less accessible. Increased funding of research and diagnostic laboratories could help reduce the problem of TB infection. Diagnostics are critical to controlling the spread of an extremely contagious airborne disease. (Zambia, 2016)

Non-Communicable diseases

Despite tremendous progress, the country is experiencing “double burden” of high prevalence of infectious diseases and the growing impact of non-communicable diseases (cervical cancer, diabetes, cardiovascular diseases). Improved sexual and reproductive health service delivery has resulted in declining maternal morbidity and mortality, increased contraceptive prevalence rate, and increased skilled birth attendance. “Non-communicable Diseases (NCDs) are a major cause of disability and premature death and contributes substantially to the escalating costs of health care. Their onset is often insidious and in Zambia, patients often present themselves when the disease is advanced, and generally in middle age. Over 80% of mortality from NCDs is caused by four main NCDs—cardiovascular disorders, cancer, diabetes mellitus and chronic obstructive pulmonary disease. These four major NCDs share similar risk factors. Modification of risk factors has been shown to reduce mortality and morbidity in people with diagnosed or undiagnosed NCDs.” (Nsakashal, 2012) Globally 32 million people died in 2016 due to cardiovascular disease, cancer, diabetes or chronic respiratory disease. The probability of dying from these causes was about 18 per cent in 2016 for people between 30 and 70 years of age. In 2016, household and outdoor air pollution led to some 7 million deaths worldwide. Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease is the probability of dying between the ages of 30 and 70 years from cardiovascular diseases, cancer, diabetes or chronic respiratory diseases. It is defined as the percentage of 30-year-old-people who would die before their 70th birthday from cardiovascular disease, cancer, diabetes, or chronic respiratory disease, assuming

that they would experience current mortality rates at every age and would not die from any other cause of death, such as injuries or HIV/AIDS. The probability of dying is the likelihood that an individual would die between two ages given the current rates of mortality at each age. “More than half of all reported deaths do not provide complete information about the cause of death, and many countries do not collect the data that is needed for monitoring progress towards SDG indicators and targets. WHO highlighted the experience of Bhutan as an example of progress in national planning for NCD interventions and primary health care? Separately, many NGOs are taking action on specific areas. The international NGO CBM, supported by the Government of Australia, is working to prioritize and de-stigmatize mental health issues in five countries in West Africa and, through a partner organization in Zambia, is seeking to ensure women with disabilities have access to maternal and child health services.” (SDG.IISD, 2017). The burden of disease from non-communicable diseases (NCDs) among adults is rapidly increasing in developing countries due to ageing and transitions in health. Cardiovascular diseases, cancer, diabetes and chronic respiratory diseases are the four main causes of NCD burden. Measuring the risk of dying from these four causes is important to determine the extent of the burden from premature mortality attributed to NCDs in a population. This indicator has been selected to monitor progress toward the “25 by 25” NCD mortality target. (United, 2017). This is an indicator for monitoring Sustainable Development Goal 3. Ensure healthy lives and promote well-being for all at all ages; Target 3.4: By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being. It is also an indicator for monitoring the Global Strategy for Women's, Children's and Adolescents' Health (2016-

2030). The MOH has made tremendous progress in ensuring the availability of medicines and medical supplies for the management and control of NCDs by including NCD medicines and supplies on the essential medicine list for Zambia. Furthermore, national NCD risk factor surveys will be conducted in 2017 to establish baseline data. Most premature deaths from NCDs are mostly preventable by enabling health systems to respond more effectively and equitably to the health care needs of people with NCDs, and by influencing policies in sectors outside health that address risk factors such as tobacco use, unhealthy diet, physical inactivity, and harmful use of alcohol.

Maternal Mortality rate

The Maternal Mortality Ratio (MMR) is the rate at which women die from maternal causes (any cause related to pregnancy, during childbirth, pregnancy or within 42 days of childbirth). It is measured as the number of maternal deaths per every 100,000 live births. A live birth refers to any baby that is born that shows signs of life outside of the womb. A maternal death refers to the death of woman while she is pregnant or within 42 days of childbirth, from any cause related to or aggravated by the pregnancy or its management. Maternal deaths exclude accidental or other non-related causes of death. Problems during pregnancy and childbirth are a leading cause of death and disability of women of reproductive age (15-49 years) in developing countries. This indicator acts as a record of deaths related to pregnancy and childbirth and reflects the ability of a country's healthcare system to provide safe care during pregnancy and childbirth. The MMR represents the risk associated with each pregnancy and birth and ratio is an indicator for monitoring Sustainable Development Goal 3 Health and Wellbeing Target 3.1: By 2030,

reduce the global maternal mortality ratio to less than 70 per 100,000 live births. This indicator is also part of the Global Strategy for Women's, Children's and Adolescents' Health (2016-2030) under Survive: End preventable deaths. Maternal mortality ratio is the number of women who die during pregnancy and childbirth, per 100,000 live births. In 2015, maternal mortality ratio for Zambia was 224 deaths per 100,000 live births. Obstructed labor can be solved by giving birth via C-section, but many people give birth at home and some hospital attendants are not able to perform the C-section needed for a safe delivery. 8 percent of the maternal deaths in Zambia are due to obstructed labor. Infections due to unsanitary conditions during delivery also account for some of the maternal deaths which occur in Zambia. 13 percent of mothers die because of poor hygienic conditions during their delivery, (Secretary-General, 2018). Other causes of maternal mortality include complications from unsafe abortions and underlying causes such as malaria, anemia, HIV or cardiovascular disease, diseases that are aggravated during delivery. Another problem is that many women are not able to go to a hospital and receive the help that they need. These herbs can cause vomiting and diarrhea and sometimes complicate the delivery. Groups such as UNICEF and Saving Mothers; Giving Life (SMGL) are working to help lower the number of maternal deaths in Zambia. Saving Mothers; Giving Life is a group that works with the Zambian government and has a six-step plan they use to helping decrease the MMR. They equip facilitates so that they are prepared to help women with complications receive care within two hours. They also work to increase the availability of drugs and equipment, train and mentor health professionals, promote better transportation to health facilities, improve data collection and help mobilize communities to increase demand for hospital births.

Infant and Child Mortality Rate

The infant mortality rate is the probability that a child will die between the time of birth and exactly one year of age in a specific year or period; it is expressed per every 1,000 live births in that same year or period. A live birth refers to any baby that shows signs of life at birth. Infant mortality rate is a general indicator of child health. Rather than being an indicator that looks specifically at health care delivery, it is an indicator of the socio-economic, environmental and nutritional status of children. Infant and child mortality rates are important indicators of a country's socioeconomic development and quality of life, as well as its health status. Measures of childhood mortality also contribute to a better understanding of the progress of population and health programmes and policies. Analyses of mortality measures are useful in identifying promising directions for health and nutrition programmes and improving child survival efforts in Zambia. Disaggregation of mortality measures by socioeconomic and demographic characteristics helps to identify differentials in population subgroups and target high-risk groups for effective programmes. Measures of childhood mortality are also useful for population projections. Neonatal, post neonatal, infant, child, and under-5-year mortality rates are calculated from birth and death data derived from vital registration or from household surveys. (Mate, 2010) The reliability of mortality estimates depends on the accuracy and completeness of reporting and recording of births and deaths. Underreporting and misclassification are, however, common amongst deaths occurring early in life. Poor nutrition affects the entire population. However, women and children are especially vulnerable because of their unique physiologic and socio-economic characteristics. Adequate nutrition is critical to children's growth and development. The

period from birth to age two is especially important for optimal physical and cognitive growth and development. A woman's nutritional status has important implications for her health as well as for the health of her children. Malnutrition results in reduced productivity, increased susceptibility to infections, slowed recovery from illness, and a heightened risk of adverse pregnancy outcomes. A woman who is underweight, with short stature, anemia, or other micronutrient deficiencies has a greater risk of intrauterine growth restriction, intrauterine foetal death, and obstructed labour. The situation is further compounded by high population growth, with a fertility rate of 5.7 children per woman leading to an annual population growth rate of 3.2 per cent. Even though Zambia was reclassified as a middle-income country in 2013, the Living Conditions Monitoring Survey Report revealed that the proportion of households living below the poverty line had decreased only marginally since 2010.

Health Policies and Systems

This indicator measures the number of health workers relative to the population of the given area. It can be used for advocacy purposes. Measuring and monitoring the density of healthcare workers is crucial for understanding the available resources in a health system. The density of health workers is an indicator for monitoring Sustainable Development Goal 3 Health and Wellbeing; Target 3. (Secretary-General, 2016) Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and Small Island developing States. Health policies in Zambia are modelled along the national health vision of "equity of access to, cost-effective and affordable health services, as close to the family as possible". "The National Health Policy outlines the country's

commitment to realize the human rights of all. All key policies and strategies focus on ensuring equitable access to primary health care services and addressing the social determinants of health. The major challenges faced by the health system include: inadequate funding; critical shortages of health workers and sub-optimal distribution of available health workers; inadequate infrastructures and equipment; and weaknesses in the supply of drugs and other medical items. These challenges largely affect health service delivery, particularly in rural communities and for disadvantaged vulnerable population groups, such as women, children, and those that are differently abled. Primary Health Services in Zambia are free.” (APPS.WHO, 2017) The UN thematic review provides an overview of health achievements to date. The world is far from ending maternal mortality, with more than 300,000 deaths in pregnancy or childbirth occurring annually. On current trends, the rate of reduction would have to improve by at least 7.3% – three times the rate of improvement between 1990 and 2015. Malaria and hepatitis continue to be major health issues for many countries. NCDs are also a growing problem, causing 40 million deaths in 2015. The top NCDs are heart disease, cancer, chronic respiratory disease, and diabetes, in that order. What is new is the emphasis on a much more clearly articulated contribution of how a healthy population contributes to the goals of other sectors’ and to societal goals overall. Health is an important input for the economy, productivity, socioeconomic development and wellbeing. This makes health a shared goal across different sectors of government and of stakeholders beyond government including the private sector and civil society. A HiAP approach thus focuses attention on the development of partnerships for public policy through identifying ‘win-win’, coproduction and ‘co-benefits’ (Lin, 2017)

METHODOLOGY

Overview

In order to have the right information on the topic this research design follows up the main question of how Zambia is progressing in its health indicators towards 2030.

Research Design

Quantitative and qualitative research methods could be appropriate. However, interviews, survey and observation will be employed. Moreover, this design was desired for it brings about result in useful conclusions as it was conducted in an uncontrolled and natural environment. It leads to more accurate results and gives optimum efficiency and reliability; it minimizes the wastage of time and it is also helpful for the collection of data. It gives the research the right direction and minimizes uncertainty.

Study Site

Kitwe’s geographical location is in north central part of Zambia.

Study Population

The study population will include randomly selected health personnel and anyone having first information from various health institutions and government agencies within Kitwe town. The sample size will be 50 taking in consideration to the sample size 40 health personnel and 10 key informants will both male and female will be involved in providing information, hence this sample size will apply generalization since it is far much above the sample size of 30. The explanation of the sample size is manageable, less costly, less time consuming and effective. The capacity of accuracy will be high and reliable since it is adequately large to be generalized.

A higher sample size will generate correct information and less error. This will provide an opportunity for the data to be analyzed more quickly than it would have been possible the whole population.

Sampling Technical Procedure

Random sampling will be used to collect data from various health personnel, which is very appropriate if generalized on a very large population. In this technique each member of the population has equal chances of being selected. The justification of random sampling is that it is easy to use. Purposive sampling will be used to gather data from administrative department from health institutions and government agencies. The justification is that it provides necessary information for the study.

Data Collection Methods/Tools

In this phase of data collection, the use of questionnaires will be involved, questionnaires provide quantitative and qualitative methods of data gathering evidence. Data that is collected can be expressed in numerical or descriptive terms. This tool will involve both closed and open-ended questions. The justification for the use of this tool is that it is easy to use and construct. In the case of having direct response from informants, an interview will be conducted. The respondent will mainly be interviewed when spaces are left blank in the questionnaire which are yet to be answered, but to make sure that the respondent does not leave any blank spaces in the questionnaire, it has to be well designed and easy to answer. The advantage of using questionnaires rather than an interview is that you can reach large number of people more easily.

Data Analysis

The quantitative data collected was analyzed using the computer programme or package called

Statistical Package for Social Sciences (SPSS), it enables users to analyze, manage and produce graphical visualizations of data. It allows a variety of statistical analysis to be performed. At the end of the study the questionnaires processed through excel will be facilitated for further data analysis through the use of excel. One of the advantages of SPSS is that, its user friendly and more valid coming up with the finding therefore it enhances easy interpretations of the results.

Ethical Consideration

The most important principle related to ethical consideration in research is that:

- Participants will not be subjected to harm
- Respect of participants will come first.
- The protection of privacy of research participants has to be ensured.
- Adequate levels of confidentiality of research data should be ensured.
- Misleading information as well as representation of primary data findings in a bias way must be avoided.

Problems and Limitation

While the research findings were highly valid and reliable, the researcher experienced some challenges. One of the challenges was delay by the respondents to complete the questionnaires with the estimated duration. Some of the respondents declined to participate in the study citing their busy schedules. Cost of printing the questionnaires was very expensive.

FINDINGS AND DISCUSSIONS

Overview

This chapter mainly provides results of the study based on the objectives. The objectives were as follows: To evaluate statistical data which indicate progression levels in the health systems. To identify the key factors that slow down progression to the achievement of the national health goals. To identify stakeholders who play an important role in the promotion and progression of national health plans. To estimate government annual funds in the promotion of health strategies.

Demographic Characteristics

Distribution of Respondents by Gender

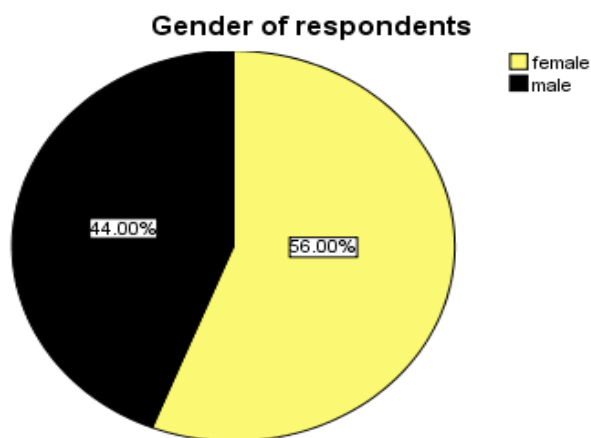


Figure 2. Author's source

The pie chart in figure 2 shows the distribution of respondents by Gender. The diagram indicates that 44% of the respondents were male and majority of the respondents were female accounting for 59%.

Distribution of Respondents by Age

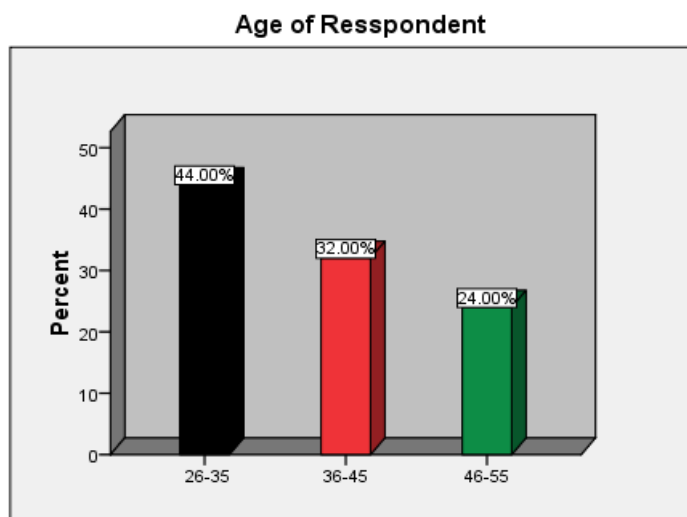


Figure 3. Author's source

As seen from bar char infigure 3 above, the majority of the respondents were aged between 26-40 years representing 44% and those between 35 to 45 yearsrepresenting 32%and those above 46 years of age were in the minoirty representing 24%.

Distribution of Respondents by Academic Qualifications

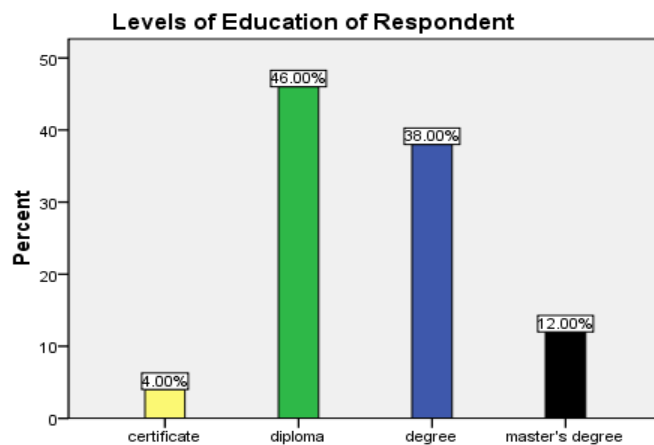


Figure 4. Author's source

The bar chart above in figure 4 shows the distribution of respondents by academic qualifications. From the 50 respondents, 46% of the responses represented those that had the Diploma qualifications, while 38% of the responses represented those that had Bachelor's degree qualification and the other 12% represented those that had Master degree qualifications, while those with certificates had 4%.

Research question 1: To evaluate statistical data which indicate progression levels in the health systems

Maternal Mortality rate

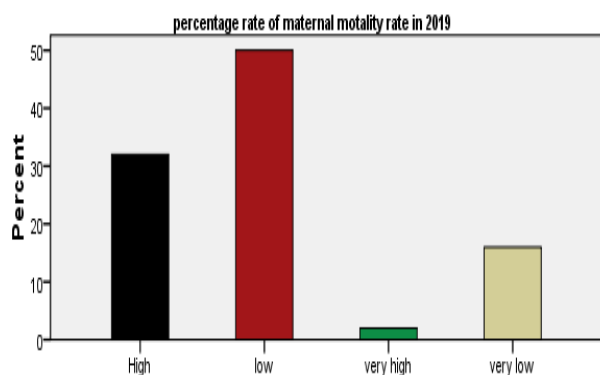


Figure 5. Author's source

The bar chart above in figure 5 represents the responses of respondents on percentage of women who die during child birth in selected health institutions, reducing maternal mortality rate was one of the goals of MDGs. In this study 50% of the respondents answered maternal mortality has recently been low, 32% high, 2% very high and 16% very low.

Child Mortality rate

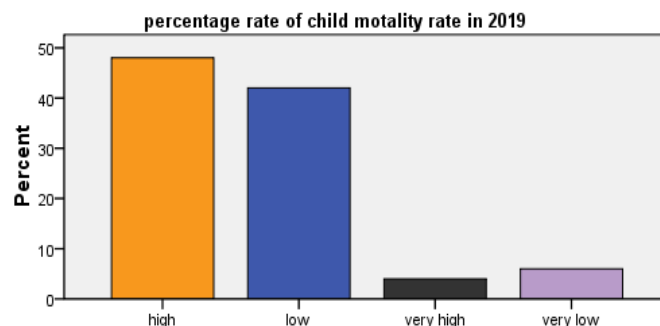


Figure 6. Author's source

Child mortality rate is the number of new children who die below the age of 5 years, The bar chart in figure 6 above shows the answers given by respondents concerning infant mortality rate, 48% of the respondents answered it has been high, 42% low, 4% very high and 6% answered very low.

Communicable Diseases

What is the major killer disease in Zambia

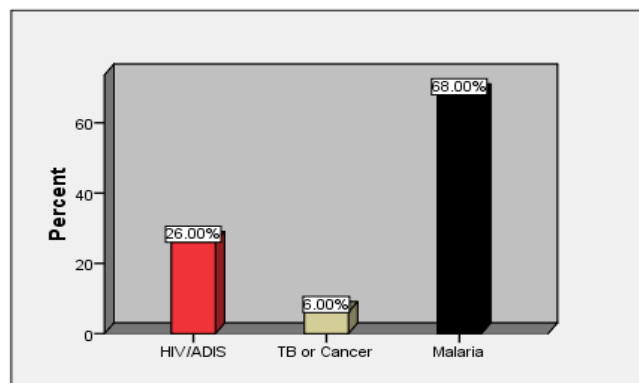


Figure 7. Author's source

The above figure 7 illustrates the responses of respondents on what is still the major killer disease in Zambia. From the figure above it can be noted that malaria takes 68% which still makes the major

leading of death especially from children below the age of 10 years as shown in figure 8 which accounts from the respond of respondent that children between the ages of 0 to 10 are the most effected with malaria, and it is noted from the respondents that the best way to fight malaria is todrug treatment because it is curable as shown in figure 8.

MALARIA

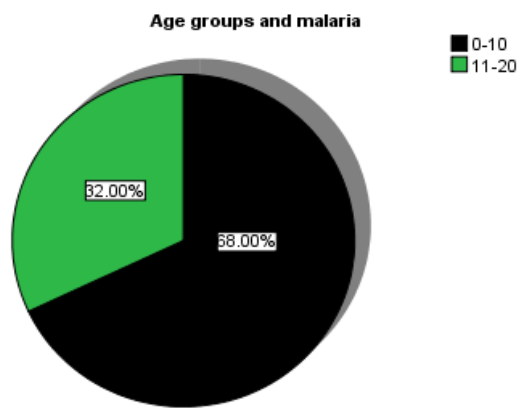


Figure 8. Author's source

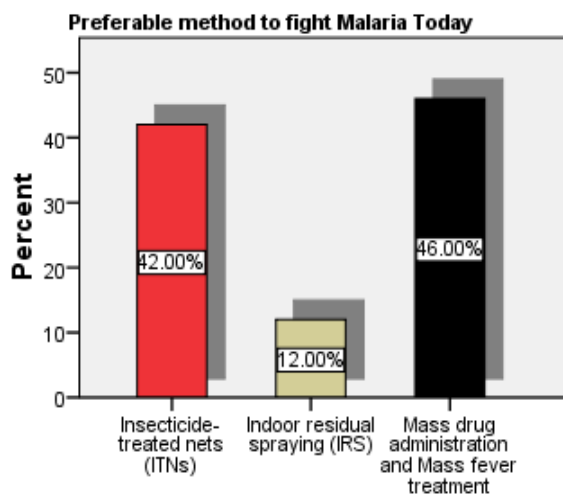


Figure 9. Author's source

HIV/AIDS

Figure 7 shows the answers from 26% of the respondent that HIV/AIDS being the second major cause of death, and from figure 11 illustrates, people between the ages of 25 and 35 are the most effected with HIV/AIDS and least age effected with HIV/AIDS are the ages above 55 As shown from figure 10 Most respondent agreed that the best way to fight HIV/AIDS is to abstinence as shown in figure 10.

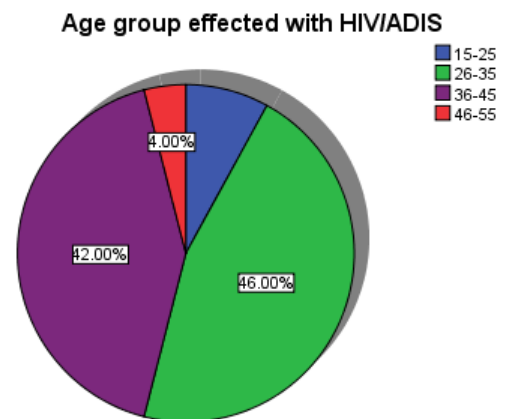


Figure 10. Author's source

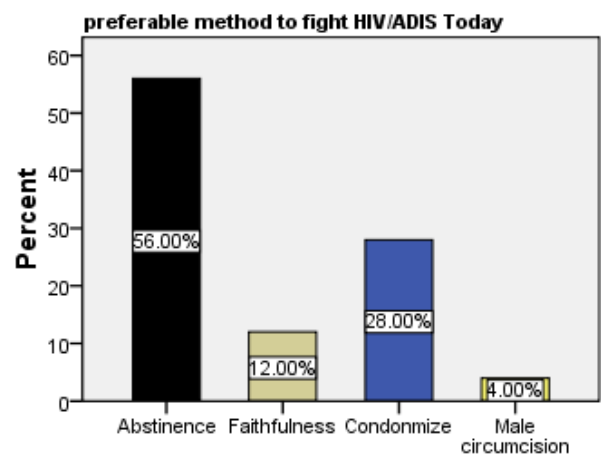


Figure 11. Author's source

TB

From figure 7 shows that 6% of respondent agreed that TB and Carcer is the least killer disease in zambia and its mostly the older age that is effected with TBthis is shown from figure 11, the findings show that people above the age of 45 are the most effected with TB or carcer, and the younger population being the least effected . most respondent agreed that drug treatment is the best way to fight TB as shown in figure 13

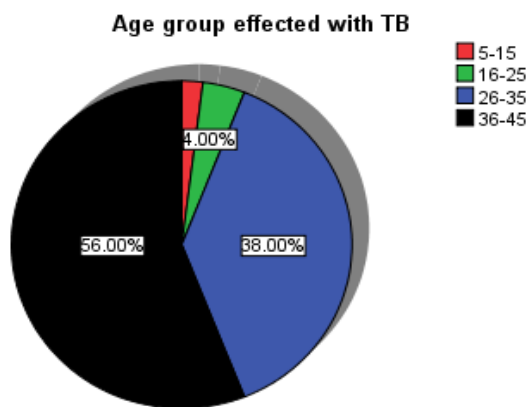


Figure 12. Author's source

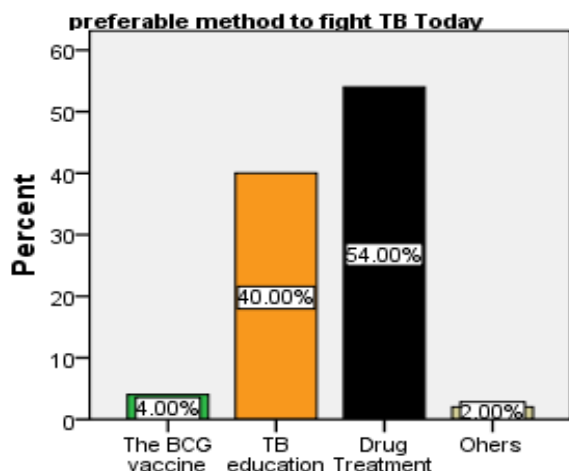


Figure 13. Author's source

Zambia has some of the highest incidents of cancer in Africa. The country's cancer indicators are negatively affected by the high prevalence of HIV/AIDS, and three out of the top five cancers are HIV related. The most common forms of cancer are cervical cancer, breast cancer and prostate cancer. As a result, most cancer patients are aged between 25 and 45, much younger than those in high-income countries. Another contributing factor is urbanization – the more heavily populated an area, the higher rate of sexually-transmitted infections (STIs). Some STIs, such as the human papilloma virus (HPV) have been implicated to be causing cancer. Most of these patients are also infected with HIV.

Non Communicable Diseases

The effects of non communicable diseases in zambia

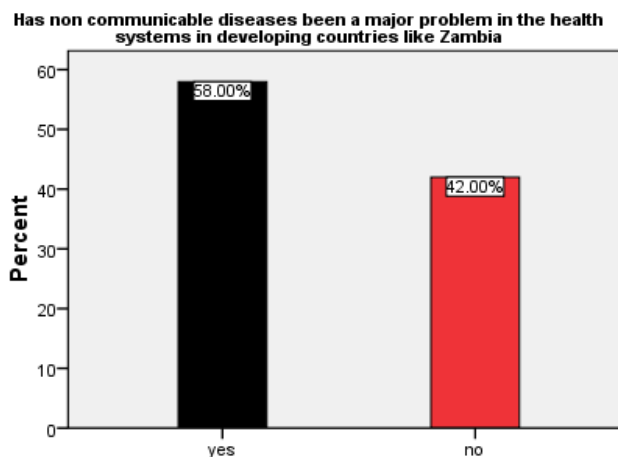


Figure 14. Author's source

The bar chart below in figure 15 represent the answers given by respondent if wheather non communicable diseases has been a major problem in zambia, such conditions have been seen to be a

problem in developed countries, nevertheless diseases like respiratory diseases, cardiovascular diseases (CVDs), diabetes mellitus (Type II), cancers, epilepsy have been resported in various health institutions in zambia, in this study 58% of the the respondents have agreed that non communicable diseases has been a problem and has been on the increase and 42% have answers that it not been much of a problem .

How effectively has the government played a role in prioritizing the fight of non-communicable diseases?

The bar chart in figure 15 below shows the percentage of respondent who see how effectively government has played a role in prioritizing the fight against non communicable diseases as one of the targets of SDGs for every government in developing countries, to fight every diseases that affects all ages. In this study 81% of the respondentd have responded government been good in prioritizing the fight of non- communicable diseases, 10% respondent responded the government been excellent and 15% respondent aswered government been poor and relaxtand in the fight against non-commincable diseases.

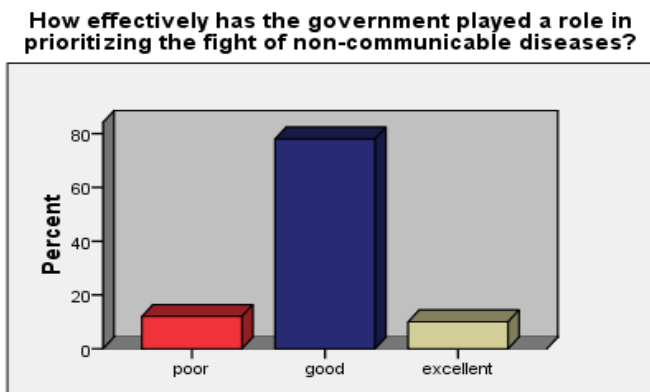


Figure 15. Author's source

Research question 2: Factors that slow down health systems

Cost of Medical Healthcare

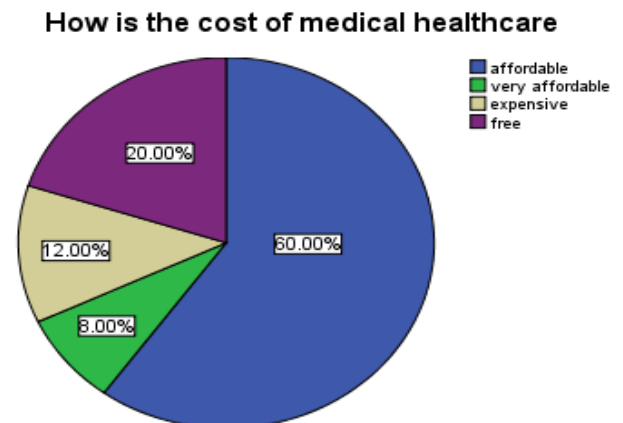


Figure 16. Author's source

One of the factors that can slow down the progression levels of health systems is the cost of medical healthcare, this happens if most people cannot afford to pay for medical problems, eg unable to buy medicine for their condition, unable to hire a specialized doctor or pay for using certain medical equipments. However government has looked into this matter and has able to to provide certain medical healthcare closest to the community. Figure 16 in the pie chart above shows the percentage of individual respondent, 60% of the respondents said the cost of medical healthcare is affordable, 20% indicated its free. 12% and 8% responded that its expensive and very affordable respectively. The vision of the health reforms in Zambia is to “provideequity of access to cost-effective, quality health care as close to the family as possible. The Zambian health policy stipulates that “every able-bodied Zambian with an income should contribute to the cost of his or her health” Zambia offers universal healthcare to all its citizens. The general state of healthcare in Zambia is poor. Although there are adequate private health

facilities in cities, the public health system remains heavily underfunded, Equity is an important policy objective in the health care field.

Drug Supply

How effective is the supply of drugs in this institutions

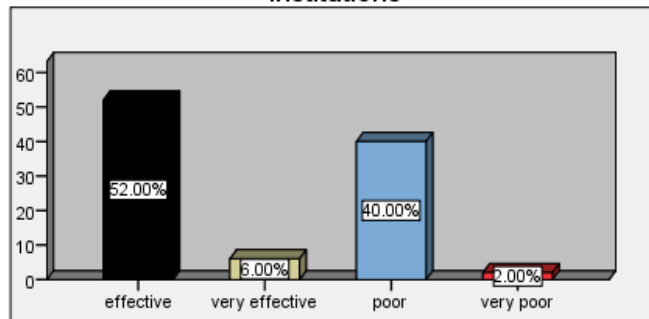


Figure 17. Author's source

The supply of drugs in health institution is headed by how commitment is the administration of that health institution, in public health institution it's the role of government to supply drugs in public hospital and clinics. Figure 17 above shows the percentage of respondents in the study. 52% people responded that the supply of drugs is effective, 40% people responded that the supply is poor.

Government Commitment to Health Systems

How is government commitment to health in this institution?

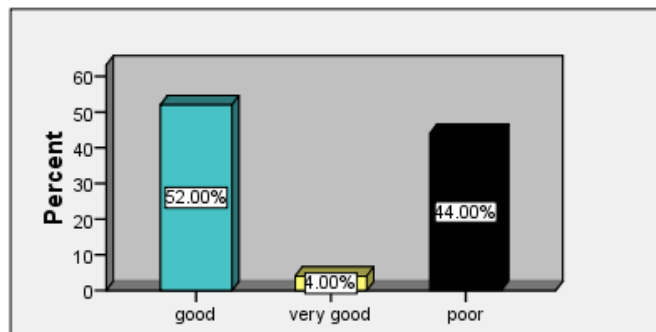


Figure 18. Author's source, 2019

The commitment of government in health systems is how government stratigize its health policies in line with SDG 3. The outline of SDG3 is to ensure healthy lives and promote well-being for all at all ages. Government has to implement polices which target the SDG3 and has to be successful before 2030. Figure 19 above shows that 52% of respondents said that government shows good commitment, 44% of the respondents responded that government has poor commitment and 4% said that government is excellent at its health activites.

Nation Budget on Health Sector

Every year the government supply funds in each and every sector, the money which is given in all ministries is announced on media station, and the information is made available to all civil servants. Figure 20 shows that 40% of the respondents said that the current national budget shows a good stand, while 32% of the respondents say the is a fair supply of fund in the health sector, 26% say government budget in the health sector is poor and 2% say that its very good.

How has the 2018 nation budget on the health section impacted in this institution

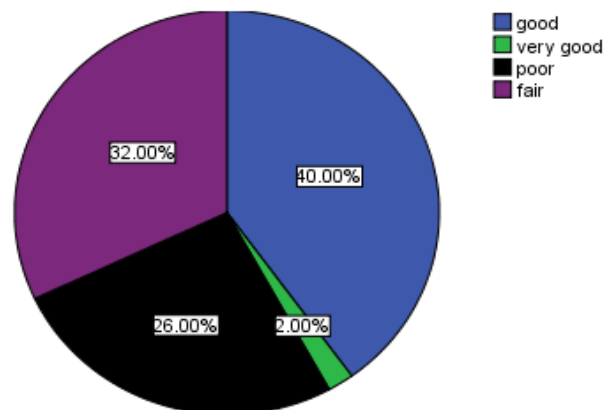


Figure 19. Author's source, 2019

DISCUSSION OF FINDINGS

Overview

This study aimed to discuss the finding associated with progression levels of the national health strategic policy in Zambia. This section therefore, discusses the findings on the factors that were identified and presented above.

The findings given in this research finding were views by respondents having qualification in virology health institutions. For the country to achieve its health strategic goals before 2030, the health statistical indicators such as levels of HIV/AIDS, TB, Malaria, Cancer, Maternal mortalities, Infant mortalities, Non communicable diseases, Road traffic accidents have to be low as possible. Government too has to show commitment and supply in funds to increase in projects that are in line with achievement of SDG goal 3. The government has to support and collaborate with NGOs that are willingly to achieve the same goal. From the findings it can be noted that communicable diseases such as HIV/AIDS, Malaria, and TB is still a major problem in Zambia, malaria is still the number one killer disease and claims more lives than any other disease, Malaria is endemic throughout the country and continues to be a major public health problem especially among pregnant women and under-five children are more vulnerable to the infection. Malaria is both preventable and curable, according to this research two most predominant way of fighting malaria is mass drug treatment and ITNs. This deterioration in malaria indicators could also be attributed to the malaria parasite's resistance to the firstline treatment drugs, the Zambia government has now adopted Artemisinin-based combination therapies in line with the recommendations of WHO. Other contributing factors include inadequate availability of malaria prevention drugs, inadequate regular indoor residual

spraying and human resource and infrastructure constraints for diagnosis and treatment in high malarial areas. Improved coverage of indoor residual spraying (IRS) is required to ensure (2) that all malaria-prone areas are sprayed frequently. For Zambia to achieve the SDGs target by 2030, she needs to achieve a prevalence rate of less than 16 percent. The drop in the HIV prevalence rates is largely attributed to the strong supportive environment, which Zambia has put in place. From the findings in this research, the most age which is vulnerable to infection of HIV/AIDS is from 25 to 40, this is the most productive age in the economy. Higher increase of HIV/AIDS death rates to this age will mean low productivity in the economy. According to the research findings HIV/AIDS Prevalence rates have continued to increase with age, rising from 5 percent among those aged 15-24 to a peak of 24 percent in the 25-39 age group, before falling among those in the 40s and above. A study which was conducted by the Zambia Demographic Health Survey shows that HIV/AIDS has taken a much stand in urban areas than rural area, there is seen to be an increase of HIV/AIDS in urban areas because of higher population growth being the main factors. According to this finding it is regarded that abstinence is the best way to stop the spread of HIV/AIDS, although some people would argue that abstinence has failed to work over the past many years as it has strongly been emphasised, because it cannot control a person's behaviour to stay away from sex. Correctly use of condoms is the second option to stop the spread of HIV/AIDS. Other new methods to help stop the spread of HIV/AIDS is male circumcision. Since the introduction of voluntary medical male circumcision (VMMC) in 2007, over 167,000 VMMCs have been performed in Zambia, of which 89 percent took place in 2010 and 2011. Another disease that is causing stress on the public

health system in Zambia is tuberculosis (TB). The research finding reveal that TB infection is mainly predominate by the older population who have fallen victims. The increasing number of TB infections, can especially dual infections with HIV and AIDS. Zambia has also reached the WHO targets for both TB case detection (70 percent) and treatment success rate (85 percent). In 2015, Zambia's TB case detection rate was 73 percent and its treatment success rate reached 89 percent. To educate people about TB is one of the best method to fight it and having reliable TB treatment partners. TB is cureable so government should supply more drugs in hospital and make the access of TB treatment available to everyone ho needs it. There has been a concerted effort to treat TB and other infectious diseases, of growing concern in Zambia today are non-communicable diseases. Mortality and loss of productivity due to heart disease, diabetes and hypertension are on the rise, and represent the next big health challenge in Zambia. This study suggest that the percentage rate of child motalities is still high. The leading causes of death among children are complications arising during pregnancy and birth, and later, respiratory infections, diarrhoeal diseases, malaria, measles and malnutrition, often in combination. Many countries have therefore successfully reduced child mortality by implementing the Integrated Management of Childhood Illness (IMCI) strategy, a holistic approach to child health developed by UNICEF and WHO. Zambia has also adopted IMCI, but its child mortality rates suggest an urgent need to revise its child health interventions. The country needs to improve the prevention and management of diarrhoea, pneumonia, malaria and HIV infection in children, including scaling up of high-impact advocacy on the importance of exclusive breastfeeding and appropriate feeding of young

children as well as hygiene, handwashing and unsafe drinking water.

Although the finding in this study suggest that maternal mortality has declined, the magnitude of the problem is still unacceptably high. According to the Ministry of Health, 38 women die every month on average during pregnancy and childbirth. The major direct causes of maternal mortality in Zambia are complications arising during pregnancy and birth, such as haemorrhage, septicaemia (blood infection), obstructed labour, hypertensive conditions, as well as unsafe abortions. Zambia has sought to reduce maternal mortality by ensuring universal access to family planning, skilled attendance at birth, and basic and comprehensive emergency obstetric care. However, maternal mortality is rooted in gender inequality, which manifests itself as poor education for girls, early marriages, adolescent pregnancies and lack of access to sexual and reproductive health information and services.

Non-communicable diseases (NCDs) are an emerging global health concern. Non communicable diseases (NCDs) have increasingly been contributing to the global disease burden, especially in low- and middle-income countries. This report have shown that, in Zambia, NCDs are also an emerging problem and the government has begun initiating a policy response. The government's policy response was as a result of international strategies from WHO, evidence of increasing disease burden from NCDs and pressure from interest groups. The government developed the NCD strategic plan based on the WHO Global Action Plan for NCDs 2013–2030. Development of the NCD strategic plan was driven by the government through the Ministry of Health, who set the agenda and adopted the final document. Stakeholders participated in the fine tuning of the draft document from the Ministry of Health. The

policy development process was lengthy and this affected consistency in composition of the stakeholders and policy development momentum. The importance of equity in health care provision can be argued from various points of view. As a result governments in all countries attempt to provide health care systems that enable equal access for everyone. Zambia is no exception. In the health care reforms the objective of the national health strategy is to provide Zambians with equity of access to health care. We focus on access defined as the costs (both monetary and time) an individual incurs when visiting a health care facility. Four areas are compared: urban high cost, urban low cost, townships and rural areas. The results of the analysis indicate that there are inequalities among residential areas, especially between rural and urban areas. In particular these differences exist because of differing distances to the nearest health facility. Large distances make it very costly for rural dwellers to seek medical care, especially during the high season for farming. The analysis suggests that obtaining equality of access to health care poses a challenge for the Zambian Government.

In his speech to the National Assembly, President Lungu manifested the present Government's increased focus on health, by pointing out the fact that the budget for the health sector had increased by 40.7 percent to K3.6 billion (720 million USD) since last year's budget. Of Zambia's annual health budget, the don or share is estimated to be in the range of approximately 40 percent. The allocation will continue to address challenges posed by the high disease burden, inadequate medical staff, equipment and supply of essential drugs. Government has also indicated that it will place more emphasis on preventive health care as opposed to focusing only on the curative aspect. This is the percentage of

government spending on health dedicated to reproductive health (covering Maternal conditions, perinatal conditions, contraceptive management - family planning - and unspecified reproductive health conditions). It excludes reproductive health services that are funded by development partners, even when they flow through government. This is the percentage of total current health expenditure that is financed by external sources, including external funds that flow through government.

Conclusion

In conclusion, this study used analytic approach in attempt to assess the progression levels of the national health indicators with sustainable development goal 3. The findings show that the study met its objectives. The variables that were associated with the topic were health policy, health indicators, government activities and budget. Zambia still experiences a high disease burden despite making tremendous progress in some selected indicators. For government to reach its health objective by 2030 in the health policies it has to work in line with SDG 3. The government has to support and collaborate with NGOs that are willingly to achieve the same goal. From the findings it can be noted that communicable diseases such as HIV/AIDS, Malaria, and TB is still a major problem in Zambia, The Primary Health Care (PHC) is the main vehicle through which health care programmes are implemented in the country. The main components of the PHC include maternal and child health services; health education; nutrition education and food production; expanded programme on immunization; communicable diseases control; water and sanitation; essential drugs programme; and the provision of basic and essential preventive and curative services. During this research it is noted that the majority of health services in Zambia are

provided by the public sector (Ministries of Health and Child Welfare, Home Affairs and Prison services), both in rural and urban areas. Public sector health services are complemented by the private sector, which includes both private for profit (e.g. industrial clinics, private hospitals, maternity homes and general practitioners) and not-for-profit private sector (e.g. mission clinics and hospitals and Non-Governmental Organizations) health facilities. The research was conducted in an urban area where health institutions are accessible to the people and where health activities are defined to central administration of the institution.

Recommendation

In order for the nation to reach its health target before 2030, the health indicators have to be as low as possible. The government has to support and collaborate with NGOs that are willingly to achieve the same goal. Since malaria and TB are now curable health institutions need to have drugs ready for people who need them. To ensure commodity (drugs and medical supplies) security in the country, significant investment has been made to upgrade Medical Stores and to establish regional hubs. Efforts have also been made to enhance information to guide planning and decision making at district and hospital levels countrywide. This has also been extended to the community level through the introduction of community health information systems. For the country to achieve primary healthcare government has to make health services close to the people by making decentralisation possible in even the remote areas of the country. Hospitals require to establish representative Pharmacy and Therapeutics Committees with defined responsibilities for monitoring and promoting quality use of medicines. Encourage targeted, problem-based in-service

educational programmes by professional societies, universities and the Ministry of Health, and require regular continuing education for licensure of health professionals. Establish systems to monitor key pharmaceutical indicators routinely in order to track the impact of health sector reform and regulatory changes. Respond to the growing calls for strengthening of health systems and the renewal of Primary Health Care: universal coverage, people-centred care, emphasis on public health and health in all policies. Undertake a thorough update and inventory of all health research in the country. Facilitate the effective implementation of the National Health Research Policy.

Strengthen the capacity at all levels to conduct effective surveillance for communicable and non-communicable diseases. Strengthen capacity in prevention, detection, diagnosis, treatment and control of epidemics. Go beyond the boundaries of health systems, addressing the social determinants of health and the interaction between the health sector and other sectors in society.

ACKNOWLEDGEMENTS

First and foremost, I wish to thank the almighty God for enabling me to undertake the study and for giving me good health. My gratitude goes to my supervisors, Mr Marvin Kabubi and Mr Kaela Kamweneshe their timely guidance in this research study. I sincerely acknowledge the Information and Communication University for according me the opportunity of fulfilling my personal goal and pursuing further studies in an area that is important to me in terms of career and thanks to my family and friends for all the support.

REFERENCES

- [1] APPS.WHO, 2017. *HEALTH SITUATION*. [Online] Available at: http://apps.who.int/iris/bitstream/10665/136991/1/csbrief_zmb_en.pdf [Accessed 17 01 2019].
- [2] APPS.WHO, 2017. *HEALTH SITUATION*. [Online] Available at: http://apps.who.int/iris/bitstream/10665/136991/1/csbrief_zmb_en.pdf [Accessed 31 10 2018].
- [3] Banda, D., 2005. *NATIONAL HEALTH STRATEGIC PLAN 2006-2010*. Lusaka: Ministry of Health Ndeke House Haile Selassie Avenue.
- [4] Bweupe, D. M., 2016. *ZAMBIA NATIONAL HEALTH STRATEGIC PLAN 2017 – 2021*. 3rd ed. lusaka: MINISTRY OF HEALTH .
- [5] Centre, Z. N. M. E., 2018. *Malaria Overview*. [Online] Available at: <https://www.nmec.org.zm/malaria-overview> [Accessed 20 01 2019].
- [6] DSPACE, 2016. *Health strategies in Zambia*. [Online] Available at: <http://dspace.unza.zm:8080/xmlui/handle/123456789/5113> [Accessed 20 02 2019].
- [7] Lin, D. V., 2017. *Progressing the Sustainable Development Goals through Health in All Policies*. Philippine: World Health Organization, .
- [8] Lin, D. V., 2017. *Progressing the Sustainable Development Goals through Health in All Policies: Case studies from around the world*. Philippines: Regional Office for the Western Pacific.
- [9] Mate, M. M., 2010. *NATIONAL HEALTH STRATEGIC PLAN 2011-2015*. 2nd ed. Lusaka: MINISTRY OF HEALTH.
- [10] NATION, U., 2017. *SUSTAINABLE DEVELOPMENT GOAL 3*. [Online] Available at: <https://sustainabledevelopment.un.org/sdg3> [Accessed 30 10 2018].
- [11] Nicole Bates-eamer, B. c., 2012. *Post-2015 Development Agenda: goals, targets and Indicators*. seoul: The Centre for International Governance Innovation and the Korea Development Institute..
- [12] Nsakashal, D. M., 2012. *Zambian Strategic Plan 2013-2016 NON-COMMUNICABLE DISEASES AND THEIR RISK FACTORS*. LUSAKA: MINISTRY OF HEALTH.
- [13] Office, C. S., 2009. *Census of Population and Housing Analytical Report*. lusaka: Central Statistical Office.
- [14] Online, C. H., 2018. *Communicable diseases in Zambia*. [Online] Available at: http://www.commonwealthhealth.org/africa/zambia/communicable_diseases_in_zambia/ [Accessed 14 01 2019].
- [15] SDG.IISD, 2017. *HEALTH AND WELL-BEING ISSUES UNDER CONSIDERATION*. [Online] Available at: <http://sdg.iisd.org/commentary/policy-briefs/health-and-well-being-issues-under-consideration-at-hlpf/> [Accessed 01 03 2018].
- [16] SDG.IISG, 2017. *HEALTH AND WELL BEING ISSUES UNDER CONSIDERATION AT HLPF*. [Online] Available at: <http://sdg.iisd.org/commentary/policy-briefs/health-and-well-being-issues-under-consideration-at-hlpf/> [Accessed 30 10 2018].
- [17] Secretary-Genera, 2017. *Progress towards the Sustainable Development Goals*. [Online] Available at: <http://unstats.un.org/sdgs>. [Accessed 25 10 2018].
- [18] Secretary-General, 2016. *Progress towards the Sustainable Development Goals*. New York: Economic and Social Council.
- [19] Secretary-General, 2018. *Progress towards the Sustainable Development Goals*. [Online] Available at: <http://unstats.un.org/sdgs>. [Accessed 26 10 2018].
- [20] United, N., 2017. *SUSTAINABLE DEVELOPMENT GOAL 3*. [Online] Available at: <https://sustainabledevelopment.un.org/sdg3> [Accessed 30 10 2018].
- [21] Zambia, S., 2016. *Tuberculosis in Zambia*. [Online] Available at: <http://ses-zambia.com/tuberculosis-in-zambia/> [Accessed 22 02 2019].