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HEALTH SERVICE PROVISION IN THE MIDLANDS PROVINCE OF ZIMBABWE: A GEOGRAPHICAL PERSPECTIVE

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ABSTRACT

Zimbabwe like many other developing countries has numerous challenges in its health service provision system. Different districts and provinces experience numerous healthcare problems. Midlands, like other provinces in Zimbabwe, experiences severe healthcare challenges. The goal of this study is to examine health service provision in the Midlands province of Zimbabwe. Data for this study was collected from primary and secondary sources. Primary data was gathered through questionnaires. Secondary data were obtained from Zimbabwe Statistical Agency (2014) published sources and Ministry of Health and Child Welfare (2014) published sources. The analysis of the data was done through the multiple component index method. The calculated multiple component indices were used to rank the districts according to the level of health service provision. The researchers found out that overall, the conditions of health service provision in the Midlands province is poor and that there are health service inequalities among districts in the province. It also emerged from the study that the inequalities are grounded in social, economic, physical and political factors. Various recommendations were made in this study on how to reduce the health care inequalities and improve the overall health system of the province.

KEYWORDS: Health, disease, inequalities, multiple component Index and Zimbabwe.

1. INTRODUCTION.

According to WHO (2000), health is people's most precious resource. Health service provision is essential for safeguarding good health of mankind across the world. Although nations across the world have made considerable progress in health service provision in the past few decades, WHO (2008), argues that equality in health service provision has not been fully achieved. Overall, the global health system is characterised by severe spatial inequalities. Health in Zimbabwe like in other developing countries is characterised by severe inequalities. Health in Zimbabwe varies spatially between provinces, districts and even in small areas such as urban centres (Chazireni and Harmse, 2013, Chazireni 2015). Apart from spatial inequalities in health, Zimbabwe experiences serious health service provision challenges. Zimbabwe's health care system is characterised by inadequate staffing, reduced accessibility by the general population, shortage of essential drugs and medical supplies, and outdated and poorly functioning equipment (Mhere, 2013). The main goal of the current study is to analyse the spatial distribution of health service provision in the Midlands province of Zimbabwe.

2. Study area

Midlands shown in Figure 1, is a province in Zimbabwe. It has an area of approximately 49,166 square kilometres and a population of 1,614,941 (ZIMSTAT, 2014). As a central province, it has a blend of shona, ndebele, tswana, sotho and chewa among various other languages spoken in Zimbabwe. It has the fourth largest city in Zimbabwe which is Gweru. The other urban centres in the province are Kwekwe, Zvishavane and Shurugwi. The province is subdivided into eight administrative districts. These include Chirumanzu, Gokwe North, Gokwe South, Gweru, Kwekwe, Shurugwi, Zvishavane and Mberengwa. The Climate of Midlands province is generally wet and dry. The farming systems which cover Midlands province are based on both livestock production and cash crops such as sugar cane and cotton. Despite so many advantages, the province is facing severe problems of health service provision.

Figure 1: Location of Midlands Province and districts in Zimbabwe (Adapted from ZIMSTAT, 2014).

METHODOLOGY

Both primary and secondary data were gathered and used in this study. Primary data were collected through questionnaires. A total of 40 questionnaires were completed in each district. Simple random sampling was used to get the questionnaires to the respondents. Simple random sampling was chosen because it had the advantage that people in the targeted population had the same probability of being included in the sample. To achieve the simple random sampling, the national registration numbers of the people in the targeted population were used and then Microsoft Spread Sheet was used to do the simple random sampling. Secondary data were obtained from Zimbabwe Statistical Agency (2014) published sources and Ministry of Health and Child Welfare (2014) published sources. Secondary data was collected on fourteen indicators. The indicators on which data were collected are: number of clinics per district, number of doctors per district, number of nurses per district, infant mortality rate, number of hospital beds per district, crude death rate, maternal mortality rate per 100000, percentage of people without toilet facility, diarrhoea incidence rate per 1000, dysentery incidence rate per 1000, number of hospital per district, underweight for ages 0-4 years by district (% below line), kwashiorkor prevalence rate per district and dysentery prevalence rate.

To analyse the spatial distribution of health service provision in the Midlands province, the multiple component index method was used. The multiple component index was used to rank the districts according to conditions of health service provision in the districts. The multiple component index is the aggregation of the indices derived from the indicator values. The multiple component index is often called the geometric mean. The geometric mean is a type of average, which indicates the central tendency of a set of observations by using the product of their values (unlike the arithmetic mean which uses their sum). The geometric mean of a data set ($k_1. k_2. k_3...k_n$) is given by: Geometric mean = $\sqrt[n]{k1.k2.k3...kn}$. For example, the geometric mean of three numbers, say 2, 4 and 8, is the cube root of their product; that is = 4. When the calculated multiple component index value (geometric mean value) is high it means that the state of health service provision in that district is good. On the

other hand, the low multiple component index value means that the state of health service provision in a district is poor.

RESULTS AND DISCUSSION
Table 1 shows results of calculated multiple component indices. Generally, the state of health service provision in Midlands province is poor. The ranking of Midlands province health service provision was achieved using multiple component indices. The values obtained are direct indication of the state of health service provision. High values indicate that the district has good health service provision. Low values indicate that the district has poor health. This is in line with the findings obtained by Mhandu and Chazireni (2016) who indicated that the health service provision in the Zimbabwean districts is generally poor.

Table 1: Ranking of districts using multiple the component index method.

District	Multiple Component Index	Ranking
Gweru	158.7	1
Kwekwe	143.7	2
Zvishavane	122.2	3
Shurugwi	120.7	4
Chirumhanzi	104.7	5
Gokwe South	94.3	6
Mberengwa	74.5	7
Gokwe North	70.4	8

As manifested in Table 1, there are severe spatial inequalities in the levels of health service provision in the Midlands province of Zimbabwe. There is a general trend in the spatial distribution of health service provision in the province. Districts which have urban areas in them generally have good state of health service provision. Such districts are Gweru, Kwekwe, Zvishavane and Shurugwi. On the other hand, those districts which are purely rural and are far away from the urban areas such as Chirumhanzi, Gokwe South, Gokwe North and Mberengwa have comparatively the lower levels of health service provision in the province. The critical role played by urban areas in the development of health systems of regions is manifested in this situation. Results of this study are in agreement with scholars such as Montgomery (2009) & Li and Wei (2010) who argue that urbanisation has a positive influence on health service provision and people's state of health.

It has also emerged from Table 1 that there is internal variation even among the districts that have urban areas. There is a clear positive correlation between size of the urban area and health service provision. The urban hierarchy in Midlands province is such that Gweru is the biggest, followed by Kwekwe while Zvishavane is the third biggest and Shurugwi is the smallest. The urban hierarchy correlates neatly with the hierarchy in health service provision of the urban areas as manifested in Table 1. There is also internal variation among the

districts that are purely rural. Chirumhanzi district has the highest multiple component index among the district that are purely rural. This is possibly because of its proximity to urban areas. The district shares borders with Gweru, Kwekwe and Shurugwi districts all of which have urban areas. It is easier for inhabitants of Chirumhanzi district to access health care in the urban areas which gives rise to a positive impact on the size of the multiple component index of the district. The existence of a fast growing growth point which is fast becoming an emerging town in Gokwe South district has given rise to a comparatively high multiple component index in the largely rural district. It can be suggested that the lowest multiple component indices found in Mberengwa and Gokwe North are due to their peripheral locations relative to urban areas.

Recommendations
Health insurance
Hospital and clinic user fees act as deterrent to people access to healthcare. The government should come up with a programme to assist the poor who also need to access healthcare. A subsidized health insurance programme can be introduced in Zimbabwe to assist people who need healthcare particularly the rural poor. This recommendation is in line with Chazireni and Harmse's (2013) view that Zimbabwe needs a health insurance scheme and that the poor and the old in the rural districts should be assisted to join such a scheme. The health insurance programme would reduce the problem of patients being turned away from hospitals and clinics due to their inability to pay the healthcare user fees.

Telemedicine
Telemedicine is a health improvement strategy which can be fully embraced in Zimbabwe. Telemedicine can be defined as any provision of medical care over distance, typically utilizing information communication (Chazireni and Harmse 2013). Currently, telemedicine or e-health strategy as it is often called, has received limited legislative and resource support in Zimbabwe. Internet and equipment costs are still high in the country. There is no clear well-coordinated mechanism in place for the implementation of telemedicine in the country. There is need to provide resources and legislative instruments that support telemedicine or e-health implementation. There need for government policies that ensure compliance to agreed international protocols and standards. Band width, which is critical to the access and use of the internet, is scarce and thus expensive in developing countries in general and in Africa in particular (Nyirenda-Jere and Biru, 2015). Insufficient band width does not only choke internet access but also keeps prices of internet high and the quality of internet services poor.

Mobile clinics
Mobile clinics may be useful to improve the geographic accessibility of health services thus the program helps in reducing some disparities. Mobile clinics represent an

integral component of the health care system that serves vulnerable populations and promotes high-quality care at low cost (Hill, 2014). There are estimated 1500 mobile clinics receiving 5 million visits nationwide per year in the United States (Hill, 2014). Mobile clinics are not new to Zimbabwe. They were introduced in some commercial farming areas in Zimbabwe. The adoption of such mobile clinics is still piecemeal in Zimbabwe. If such a strategy is fully embraced the health service provision challenges of the country and the province can be drastically reduced.

Community involvement
Government's commitment to community involvement can be traced back to 1981 in what was called Village Health Worker Program. It is, however, acknowledged that much more needs to be done by the government to enhance more participation of local communities in the improvement of their health. In fact, the focus should no longer be on mere participation but implementation of a broad-based participation in the process of health improvement. The revitalisation of health committees provides an opportunity for Zimbabwe to strengthen community participation in the health sector. The Ministry of Health and Child Care should develop written guidelines clarifying the roles and responsibilities of the committees to support activities in the country's health care system.

Improvement in access to health care
The deterioration of Zimbabwe's health care system coincided with the introduction of user fees. The fees, which are often applied in an ad hoc manner, vary from provider to provider. Such fees act as a barrier to basic health service provision. Currently, free of charge health services are available to pregnant and lactating mothers, children under five and those aged 60 years and over but the policy has proved to be difficult to implement. In the absence of substantial government financial support, user fees provide the main income for many health care facilities enabling them to provide at least the minimum service (UNICEF, 2011). It is recommended that the government removes health service fees and have a policy of free medical care. The government is also encouraged to monitor the operations of health insurance organisations. Most health insurance organisations are grappled with chaotic operation problems. These problems subsequently affect the state of health of Zimbabweans. Establishment of a programme of national health insurance system can be useful in reducing the health service provision challenges in Zimbabwe. The national health insurance system was proposed by Chazireni (2015).

Complementary and alternative medicine
The international community is gradually formalizing the practice of complementary and alternative medicine. According to WHO (2016), one hundred and three (103) member states have given approval to the practices of acupuncture and moxibustion. The World Federation of Acupuncture-Moxibustion Societies, with head quarters in China, has one hundred and ninety four (194) member organisations from fifty three (53) countries and regions and the (WHO, 2016: 20). If adopted, complementary and alternative medicine can be a very effective health improvement strategy. Complementary and alternative medicine is already in use in Zimbabwe. However, there is no broad incorporation of this medical approach in Zimbabwe. In this regard, complementary and alternative medicine is not widely embraced by the generality of the Zimbabwean population. Therefore, there is need for policy considerations to make complementary and alternative medicine more accessible to the broader population of Zimbabwe. It is important for the policy makers in Zimbabwe to consider more incorporation of complementary and alternative medicine into the formal national healthcare systems.

Improvements in health policies
A review of public health policies is needed. The government should consult the public so as to come up with efficient working public legislation on health. A research conducted by (TARSC, 2011) revealed that the Public Health Act is poorly implemented and that the public health system is somewhat ineffective, with frustration over the lack of priority given to public health, frustration over the new situations that have created risks that are not being managed, and frustration over lack of accountability of officials. It was perceived that the Public Health Act and its counsel are not well known (TARSC, 2011). The government of Zimbabwe should therefore, give higher priority on public health policy, by making the policies known by the people and ensuring proper implementation. There is need to include the rights of people to health in the public health Act of the country. The rights to be included in public health policy should encompass the rights to proper drinking water, adequate food and proper housing, free health care and access to public health information.

CONCLUSION
Health service provision in the Midlands province of Zimbabwe is experiencing challenges. The current study demonstrated that there are severe health inequalities in the Midlands province. The spatial distribution of health conditions in the province is influenced by both physical and human-centred forces. Districts with urban centres have comparatively good health conditions. Such districts have more resources and better implementation of government policies and programmes for improvement of conditions. On the other hand, districts which do not have urban centres generally have poor health conditions. Numerous recommendations were made for the improvement of health service provision and conditions of people's health in the province. Generally, the recommendations are aimed at reducing the disparities in health conditions and improvement of health conditions in general in the districts. It is hoped that if these recommendations are taken into account,

there is going to be reduction in health inequalities that are currently predominant in the province.

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