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Health System in Zimbabwe and Delay in Seeking Health Care of Breast Cancer Among Women

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Breast cancer, the most prevailing and only cancer considered universal among women worldwide. The rate of breast cancer per 100,000 women is higher in high income countries than in low income countries. However, mortality rates are high in low income countries due to the delay in seeking health care. A systematic literature review was carried out to document the health system implemented in Zimbabwe and its challenges that could be contributing to the delay in seeking health care of breast cancer among women in Zimbabwe. A content analysis was used to analyze articles, searching was done using the Boolean search strategy, articles from 2005 to 2021, which met the inclusion criteria were considered. Factors such as centralized services due to shortage of cancer specialists, lack of financial allocations on breast cancer health programs, shortage of screening and surgical equipment, lack of accurate data due to weak registration system and health management information system as well as poor governance and leadership have also been found to be challenges in the health system of Zimbabwe that may contribute to delay in seeking health care of breast cancer among women in Zimbabwe.

Keywords: *breast cancer, health system, health care, Zimbabwe*

Introduction

Background

Breast cancer, a cancerous tumor which originates from tissues of the breast, starts when cells in the breast begin to grow out of control to form a tumor which then results in breast cancer (Irvin and Carey 2008). Breast cancer is the most prevailing cancer among women and it is the only cancer that is considered universal among women worldwide, though it also affects men to a lesser extent. It is now the leading cause of cancer-related deaths among women globally. The rate of breast cancer per 100,000 women is higher in high income countries than in low income countries. However, mortality rates are high in low income countries as opposed to high income counties due to delay in seeking health care of breast cancer with poor treatment outcomes due to determinants such as disparities to access to high quality treatment, lack of facilities for breast cancer screening and poor awareness and knowledge of the disease in low income countries (WHO 2017).

According to WHO (2017), it is estimated that more than 450,000 breast cancer deaths occurred worldwide and over 1.1 million new cases were recorded. However medical advances have shown that one third of cancer of the breast is preventable and a further one third of the cases can be cured if diagnosed on time.

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Breast cancer in low to middle-income countries peaks 10-15 years earlier than in high income countries, presenting between the ages of 35-45 years as compared to 55-65 years in high income countries. Moreover, breast cancer in high-income countries such as USA and Canada and other regions have been impressive with an approximate survival rate of 70%-89% because of early detection by screening and timely effective treatment which is lacking in low income countries especially in the African continent. Breast cancer survival rates in most African countries ranged from 10%-25% (Nkala 2014).

Breast Cancer Causes

Literature pointed out that, the underlying causes of breast cancer are not yet known but there are a number of factors that increase risk of getting it. Risk increases if you: are a woman, above the age 40, have someone who had breast cancer in the family, are a smoker and take alcohol more than two normal size (350mL) bottle a day, take a diet which has high animal fat and low fiber content, started having children over the age of 30 or have no children at all, started menstruating before reaching the age of 12 and experience menopause later than what is considered normal, that is, after 55years (CAZ 2016). Being aware of the cause of breast cancer will help people to take preventive measures where possible and seek medical care as soon as a suspicious tumor appears in the breast.

Breast Cancer Screening

There are a number of ways for screening tumors and lumps in the breast, these are: clinical and self-breast exams, mammography, genetic screening, ultrasound, and magnetic resonance imaging (MRI) (Muchirevesi 2016). Breast self-examination (BSE) is a screening method for early detection of breast cancer. It is used as a checkup with women to find or detect any changes in the breast and it helps women to seek early treatment when a tumor is still small. Mammography can detect the tumor before it is capable of being touched or felt but it has some limitations such as false negative; sometimes it cannot find the cancer in the breast when in fact the cancer is there. Clinical breast examination (CBE) is another method that is done by well-trained nurses and other qualified health care providers. It is recommended that CBE be part of a periodic health assessment, at least every 3 years for women in their 20s and 30s and every year for women at least 40 years of age (Shao et al. 2018). Breast cancer screening is an important topic concerning delay in seeking health care of breast cancer because the screening method used to determine early or late detection of breast cancer.

Preventing Breast Cancer

The most common way to prevent breast cancer is by living a healthy life. Almost one third of most common cancers, including cancer of the breast can be prevented by eating a healthy diet, keeping a healthy weight and physical activity like exercises. The diet containing whole foods that are high in fiber and naturally

grown is encouraged. The other important fact is to avoid food that is highly processed, refined, high in fats, sugars and salts. It is the best to completely avoid alcohol, tobacco smoking and tobacco sniffing or chewing. Managing stress effectively is another important aspect in the prevention of breast cancer as well as other cancers. Breast feeding for a long time, up to 2years also a protective factor-this is a common practice in Zimbabwe and must be encouraged (Lei 2021).

Delay in Seeking Health Care of Breast Cancer

Delay in seeking health care is the time lag from which women notice signs and symptoms of tumor(s) in their breast and the time they seek health care depending on the breast cancer stages. At stage 1, cancer is relatively small and contained within the organ it started in, stage 2 means the cancer has not started to spread into surrounding tissue but the tumor is larger than in stage 1. From stage 3 that is when it is considered as delay when one seek health care at that stage or later because stage 3 usually means the cancer is larger and it may have started to spread into surrounding tissues and there will be cancer cells in the lymph nodes in the area, whereas, stage 4, the cancer has spread from where it started to another body organ (Moran et al. 2014). Moreover, seeking health care at stage 3 or above is considered as the delay because nothing much can be done since 90% of treatment will not work at stage 3 and 4 (American Cancer Society 2017).

Determinants of Delay in Seeking Health Care of Breast Cancer

According to a study done in Tanzania on Clinical and Epidemiologic profile of breast cancer lower income, lower educational level, experienced prejudice in care delivery, perceived lack of access to health care, fatalism about breast cancer, poor health care utilization habits, self-care behavior, spouse/partner and employer perceived constraints, problem-solving style, and a lack of knowledge of breast cancer's presenting symptoms were associated with likelihood to delay in seeking health care of breast cancer (Burson et al. 2010).

The results from a study in India to identify the determinants affecting the delay in seeking health care of breast cancer, with variables such as age, educational level, place of residence, and marital status, revealed that rural background and education status were strongly associated with the delay in seeking health care of breast cancer than their respective counterparts (Stewart and Wild 2017). Income earned by the family and smoking status, breast symptoms which were experienced previously, self-treatment and time taken to travel to the hospital were found to be key determinants of the delay in seeking health care of breast cancer from a Thailand study (Poum et al. 2014).

A study done in Nigeria pointed to socio -demographic determinants such as age, gender, place of residence and educational level were strongly associated with delay to seek health care. late presentation to treatment (Eze 2014). Another research which included South Africa, Egypt, Ghana, Kenya and Libya revealed that negative symptom interpretation, fear, belief in alternative medicine, social relations and networks, lack of trust and confidence in orthodox medicine, disparities to access to high quality treatment, lack of facilities for breast cancer

screening and poor awareness and knowledge of the disease are major determinants to delay in seeking health care (Maree and Wright 2010).

Breast Cancer in Zimbabwe

Statistics from Zimbabwe National Cancer Registry reveal that cancer of the breast accounts 12.4% of the cases among Zimbabwean black women. It is in the second position among the most common cancers in Zimbabwean women, the highest being cancer of the cervix (30.2%). Breast cancer is a top cause of morbidity and mortality in Zimbabwe with over 6,500 deaths per year. Cancer cases are expected to rise due to increasing ageing population and HIV and AIDS since Zimbabwe is in the top 22 of the countries in the world that have the highest burden of HIV. Most breast cancer cases in the Zimbabwe are related to HIV infection, therefore, the country is faced by a massive breast cancer challenge (Chokunonga 2016).

The majority of cancer patients (70%) in Zimbabwe delay to seek health care, they present for treatment at a late stage usually stage 3 and 4, which is the main cause of the increase in premature deaths from breast cancer (Nkala 2014).

One study done in Zimbabwe point out that lack of knowledge of breast cancer is a major contribution to delay in seeking health care of breast cancer. Results show that 52% have heard about breast cancer and the other 48% have never heard about it (Muchirevesi 2016). Most women in Zimbabwe are afraid of what people's reactions will be when people hear that they have breast cancer and the fear of being rejected by the community and also fear of the loss of a breast were other determinants that were found in another study. A study done by Nyakabau in 2014 pointed economic factors, Zimbabwe is going through economic hardships since 2008 and many people do not afford health care services (Nyakabau 2014). The economic hardships are also affecting the health care systems in Zimbabwe in terms of service delivery, health cost and health information. Concisely, according to literature, socio- economic determinants have a major contribution in the delay of seeking health care of breast cancer in Zimbabwe.

There are many kinds of health promotion materials and awareness on breast cancer risk factors and breast self-examination have been developed in the form of posters, fliers, pamphlets, as well as books. However, despite all these efforts that have been put in place, breast cancer remains a major public health problem among Zimbabwean women. The major concern contributing to this being that most patients present to the health service provider when the cancer is very advanced that is stage 3 and 4 and it will be too late for curative treatment to be offered.

Health Systems in Zimbabwe

According to WHO, a good health system is the one that delivers quality services to everyone in the population whenever they need them. The exact configuration of services varies from country to country, but in all cases requires a

robust financing mechanism; a well-trained, motivated and adequately paid workforce as well as reliable information on which to base decisions and policies and well-maintained facilities and logistics to deliver quality medicines and technologies (WHO 2016).

The economic hardships in Zimbabwe are causing the majority of people to not afford health care costs (Nyakabau 2014). Treatment for cancer including doctors' fees, surgery costs and treatment cycle costs range from US$4,000 and US$5,000 in private hospitals, yet most civil servants earn a minimum salary of US$300 a month. In government hospitals treatment may cost half of what it costs in private hospitals, however drugs are always out of stock and they are quickly depleted due to high demand and low supply (Muchirevesi 2016). Economic hardships are also causing doctors and nurses and other health professional to leave the country and go to other countries for greener pastures which is creating shortages of human resource in the health system which also lead to poor service delivery (Muchirevesi 2016). As mentioned in the WHO definition of the health system that a good health system should be able to deliver quality services to people but in Zimbabwe it is quite challenging for the health system to deliver what people want especially because of economic hardships. Therefore, the economic hardships in Zimbabwe are affecting the health system in a negative way as mentioned above, thereby contributing to the delay to seek health care services.

Problem Statement

Prevalence and incidence of breast cancer are high in high-income countries compared to low income countries. Africa has a low breast cancer incidence rate but high mortality rates compared to other continents due to poverty which is the main cause of delay in seeking health care. The incidence rate of breast cancer is 27 cases per 100 000 women in Middle Africa and 92 cases per 100,000 women in North America (WHO 2017). Survival rates were 70-89% in high income countries and 10-25% in low income countries including Zimbabwe. The delay in seeking health care being the major determinant of breast cancer survival in Africa (Nkala 2014).

In Zimbabwe, breast cancer cases are increasing by almost 30% yearly. The reported cases are probably an underestimate as many breast cancer cases are not captured because most patients do not seek health care (CAZ 2015). Breast cancer is a major cause of morbidity and mortality as well as premature deaths among Zimbabwean women with over 3 000 new diagnoses and over 6 500 deaths per year. Only 31% are diagnosed at an early stage when chances are high to cure the cancer and the other 69% delay to seek health care which is a major determinant of breast cancer survival (Chokunonga 2016).

Studies done in Zimbabwe revealed poor socio-economic status as being the major determinant of the delay in seeking health care (Muchirevesi 2016) even though some of the studies point to economic access barrier as the major source of the delay (Nyakabau 2014), some have generated evidence of non- economic access barriers to women participation in breast health care programs as major

contribution to the delay of seeking health care (Nkala 2014). This suggested that health system framework implemented in Zimbabwe, a considerable non-economic barrier, may contribute to the delay in seeking health care of breast cancer among women in Zimbabwe. Presently, the evidence on this issue in Zimbabwe is unclear. Lack of such information may hinder progress in addressing issues that influence breast cancer.

Purpose of Study

Understanding the health system framework implemented in Zimbabwe and its potential influence on the delay in seeking health care of breast cancer could be an effective step to reduce breast cancer prevalence and mortality. Moreover, the information might be used to upgrade health care systems and improve access to health service delivery to ensure that breast cancer is detected and treated at an early stage.

Study Question

- To what extend does the health system of Zimbabwe (Ouagadougou Declaration 2008 Framework) adopt the WHO health system in the prevention and control of breast cancer among in the country?
- What are the challenges in the health system of Zimbabwe that may contribute to delay in seeking health care of breast cancer among Zimbabwean women?

Study Objectives

- To describe the extent to which health system in Zimbabwe adopts the WHO health system framework in provision of health services to prevent and control breast cancer among women in Zimbabwe.
- To identify challenges in health system contributing to delay in seeking health care among women in Zimbabwe.

Operational Definition

Health System

Defined as a system consisting of all organizations, people and actions whose primary interest is to promote, restore or maintain health so as to deliver quality services to everyone in the population whenever they need them (WHO 2018).

Health Care

Health care is defined as a way of taking preventive and medical procedures to improve the health of a person especially when they are not physically and mentally fit. This may be done with surgery, the administering of medicine, or other alterations in a person's lifestyle. These services are offered through a health care system made up of hospitals and physicians (Porter 2010).

Delay in Seeking Health Care

The time lag from which women notice signs and symptoms of tumor(s) in their breast and the time they seek health care at stage 3 or 4 of breast cancer (Maree and Wright 2010).

Research Methodology

Study Design

A systematic literature review is used to analyze published articles to identify the determinants of delay in seeking health care of breast cancer among Zimbabwean women. The review strategy is authentic, date of publishing and publishing organization and or journal was ascertained before articles were included for reviewing. Only articles, reports and researches published between 2005 and 2021 were taken into consideration. Credibility is also taken into consideration, articles written based on personal opinions are not included for review. Articles are also reviewed to ascertain their reliability and whether the documents were representative of a collection of articles. Documents are also checked if their contents are logical and understandable. In order to have a clear understanding of evidence and information, only articles written and published in English were considered (Budgen and Brereton 2006).

Search Methods

The search methods are used by search tools such as search engines, and links from trusted websites to increase the effectiveness and efficiency of internet searches. Search engines are used in such a manner that terms are relevant to the study topics. When they are entered the engines responsible for searching and providing the list of web pages that had terms entered somewhere in them, whereas trusted links are found in the bibliography at the end of the paper or book and the bibliography help to find other sources that are related to the study.

Searching of articles was done across a wide range of databases which include: PubMed, Cochrane, Science Direct among others.

A Boolean search was used for identification of relevant articles using the keywords (breast cancer "OR" delay in seeking health care "OR" health care "OR" health system "OR" health information "OR" health financing "OR" health workforce "OR" health governance "OR" service delivery) "AND" (Zimbabwe "OR" name of any country). Some articles were identified through snowballing from articles which provided relevant information.

Inclusion and Exclusion Criteria

Published documents, journals articles, reports and web pages with key words relevant to health system and delay to seeking health care of breast cancer were included. The research focused on documents from only the 2005-2018

period and articles which were written in English. Non-English documents and abstract only documents were excluded.

Management of References

All published articles that are relevant and related to this study, and accessed from different search engines using different search methods were developed and managed using Endnote. In order to manage the information, all the information was summarized into a literature review matrix tabulated into author(s), year of publication and findings to identify patterns across the included studies to reach conclusions.

Data Analysis

Data were translated using content analysis by collecting and collating data from both qualitative and quantitative sources relevant to the study question to identify interventions common between studies. Content analysis is a family of systematic, rule-guided techniques used to analyze the informational contents of textual data and systematically categorizing textual data in order to make sense of it and answer the study questions (Strijbos et al. 2006). Deductive content analysis was used because the structure of analysis is based on previous knowledge with the aim to test a previous theory in a different situation (Elo and Kyngas 2008).

Results and Discussion

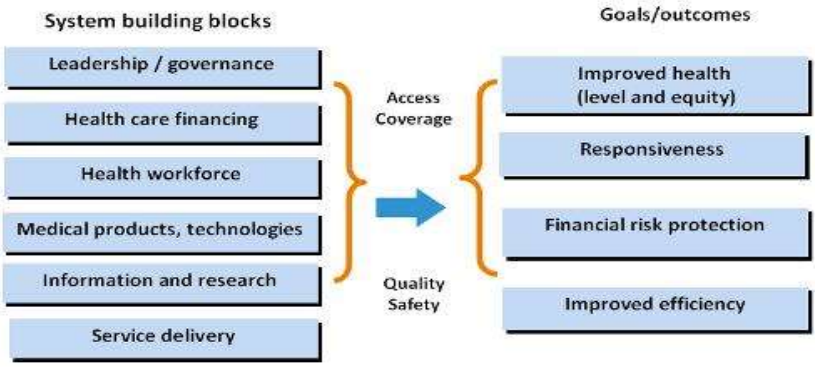
Document Identification

The Boolean search strategy yielded 147 articles. The articles were first screened using titles and abstracts and only 71 articles met the criteria whereby the other 76 were excluded. The articles were further screened using the full text review where 39 articles were excluded. Therefore, a total of 32 full text articles met all the inclusion criteria.

WHO Health System Framework and the Zimbabwean Health System Framework

The WHO health system framework is defined as a system consisting of all organizations, people and actions whose primary interest is to promote, restore or maintain health so as to deliver quality services to everyone in the population whenever they need them (WHO 2018). This can be described by using the six building blocks shown in Figure 1.

Figure 1. *The WHO Health System Framework*



Source: WHO 2018.

1) Leadership and governance involves ensuring strategic policy frameworks exist and are combined with effective oversight, coalition-building, the provision of appropriate regulations and incentives, attention to system-design, and accountability (WHO 2018).
2) Health care financing raises adequate funds for health, in ways that ensure people can use needed services, and are protected from financial catastrophe or impoverishment associated with having to pay for them (WHO 2018).
3) Health workforce works in ways that are responsive, fair and efficient to achieve the best health outcomes possible, given available resources and circumstances (WHO 2018).
4) Medical Products and technologies ensures equitable access to quality, safety, efficacy and cost-effectiveness, and their scientifically sound and cost-effective use (WHO 2018).
5) Health information system ensures the production, analysis, dissemination and use of reliable and timely information on health determinants, health systems performance and health status (WHO 2018).
6) Health services delivery are those which deliver effective, safe, quality personal and non-personal health interventions to those who need them, when and where needed, with minimum waste of resources (WHO 2018).

Health System Framework and Challenges in Zimbabwe

In 1980, the Government of Zimbabwe adopted the Primary Health Care Approach as a strategy to deliver health services. The health delivery platforms include primary, secondary and tertiary, however most of the health facilities in Zimbabwe are at primary care level which refer complicated patients to the upper levels. Moreover, mission and private sector facilities provide considerable services in both rural and urban areas. The primary health care aimed at ensuring the provision of quality and safe health services through a network of health facilities organized on the basis of increasing levels of sophistication (MoHCW 2016).

Zimbabwe adopted the Ouagadougou Declaration 2008 on Primary Health Care and Health Systems in Africa which focuses on nine major priority areas. The WHO health system framework and Ouagadougou Declaration 2008 are the same except that the Ouagadougou Declaration emphasizes on 3 more areas including: ensuring effective community ownership and participation in health development by creating an enabling policy framework for community participation, building community capacity, as well as using health promotion strategies to empower communities to adopt healthier lifestyles. Table 1 shows the summary of this comparison.

Table 1. *Comparison of WHO Health System Framework and Ouagadougou Declaration 2008 Framework*

WHO Health System Framework	Ouagadougou Declaration 2008 (Zimbabwe Health System Framework)
Leadership and Governance	
- ensure strategic policy frameworks exist and are combined with effective oversight, coalition-building, the provision of appropriate regulations and incentives, attention to system-design, and accountability (WHO 2018).	- aims at improving health determinants and updating and improving the national health strategic plan and policy (WHO 2010).
Health Care Financing	
- raises adequate funds for health, in ways that ensure people can use needed services, and are protected from financial catastrophe or impoverishment associated with having to pay for them (WHO 2018).	- aims at developing comprehensive health financing policies and plans and strengthen financial management skills at all levels (WHO 2010).
Heath Workforce	
-a well-performing health workforce one which works in ways that are responsive, fair and efficient to achieve the best health outcomes possible, given available resources and circumstances (WHO 2018).	- the main goal of building health training institutions capacity for scaling up the training of relevant cadres of health-care providers and to promote strategies for motivation and retention of health workers (WHO 2010).
Medical Products and Technology	
-ensures equitable access to quality, safety, efficacy and cost-effectiveness, and their scientifically sound and cost-effective use (WHO 2018).	-which is about increasing access to quality and safe health technologies and developing national policies and plans on health technologies as well management of appropriate health technologies (WHO 2010).
Health Information	
-ensures the production, analysis, dissemination and use of reliable and timely information on health determinants, health systems performance and health status (WHO 2018).	- which emphasize on the need to strengthen health information and surveillance systems for evidence based decisions given the weaknesses in data collection, collation, analysis, interpretation and use (WHO 2010).
Health Service Delivery	
- are those which deliver effective, safe, quality personal and non-personal health interventions to those who need them, when and where needed, with minimum waste of resources (WHO 2018).	- which aims ensure service organization and stakeholder coordination to promote and improve efficiency and equity (WHO 2010).
Community Ownership and Participation	
	-which is about ensuring effective community ownership and participation in health development by creating an enabling policy framework for community participation and building community capacity as well as using health promotion strategies to empower communities to adopt healthier lifestyles (WHO 2010).

Partnerships for Health Development	
	- which promote and strengthen partnerships for health development and adopting inter-sectoral collaboration, public-private partnerships and civil society participation in health policy formulation and service delivery (WHO 2010).
Research for Health	
	- which ensure the need of enough research on health so as to improve health outcomes.

Adoption of WHO Health System Framework in Zimbabwe

Leadership and Governance for Health

According to WHO (2018), leadership and governance ensures wide range of functions carried out by governments to improve population health while ensuring equity in access to services, quality of services, and patients' rights through the implementation of strategic health policies and coalition building. However, Zimbabwe's health systems reflect an explicit poor governance in allocation of resources, expansion of health infrastructure, deployment of health workers, particularly in rural areas. The breast cancer services are centralized and cannot reach rural and marginalized areas, where the delay in seeking health care of breast cancer is high (Marjolein et al. 2012). Additionally, lack of collaboration and synergies across different sectors, has also affected allocation of resources to address breast cancer inequities. Competing health and development priorities in the face of scarce resources subordinates the health sector to other sectors such as agriculture, finance and security. Hence, the health sector does not have much influence when compared to other sectors. This leads to lack of coherence in implementing policies that address determinants of delay in seeking health care of breast cancer (MoHCW 2014).

Zimbabwe has a draft Cancer Prevention and Control Strategy, which outlines priorities for cancer prevention and control though it is not yet implemented. The aim of the strategy includes reducing cancer incidence, mortality and morbidity. Finalization and launch of the National Cancer Prevention and Control Strategy needs to be given priority. Zimbabweans are expected to exercise breast cancer prevention behaviors and have access to early cancer detection (MoHCW 2014).

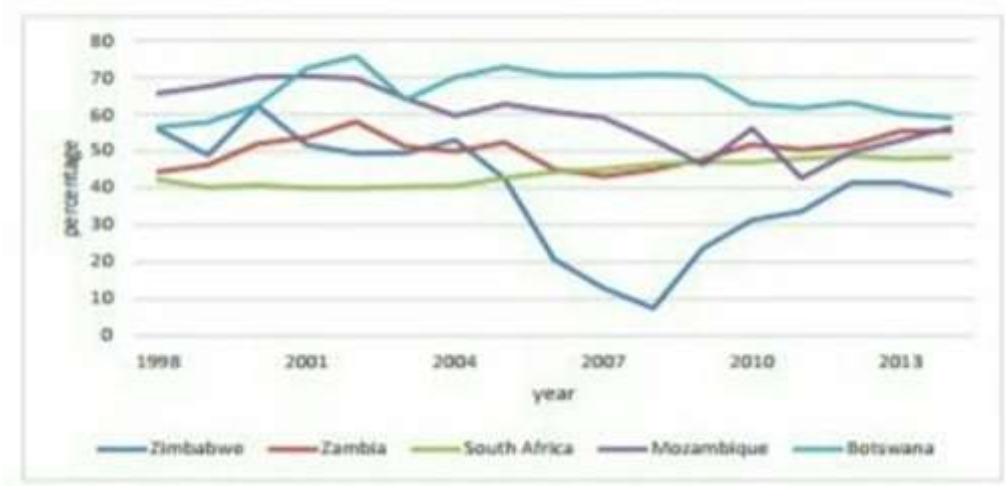
Health Financing

A good health financing system raises adequate funds for health, allocates resources, and purchases good and services in ways that improve quality, equity, and efficiency (WHO 2018). In Zimbabwe, evidence revealed a significant lack of financial allocations especially for cancer services. The National Health Accounts 2015 revealed that the health system is currently underfunded, with its US$7 per capita per annum for health significantly lower than US$34 recommended by the WHO. The underfunding is also affecting the availability of drugs and medical equipment (MoHCW 2017). Poor health financing began in the 1990s when the country adopted the structural adjustment programs (Lee et al. 2007). Structural Adjustment Programs (SAPs) were implemented as a conditionality for accessing bail out loans from the World Bank and International Monetary Fund. Structural

Adjustment Program (SAPs) entailed restructuring the domestic economy in order to support cost effective health interventions (Labonté 2010). This led to a reduction in health financial allocation as well as reduction in financial allocation for cancer interventions and the subsequent rise in breast cancer mortality.

Figure 2 shows that of all the Southern African countries, Zimbabwe's general government expenditure on health has gone down significantly between 1998 and 2013. Low expenditure on health in Zimbabwe is associated with high breast cancer mortality due to shortage of drugs and medical equipment (Nyakabau 2014).

Figure 2. *General Government Expenditure on Health in Southern African Countries 2013*



Source: Southern African Countries, NHA 2014.

Health Workforce

A well- performing health human resource one which works in ways that are responsive, fair and efficient to achieve the best health outcomes possible, given available resources and circumstances, that is, here are sufficient numbers and mix of staff, fairly distributed; they are competent, responsive and productive (WHO 2018). However, the health parameters for Zimbabwe are poor. The deteriorating economic conditions of the last decade resulted in the most senior health care workers migrating to neighboring countries and abroad leading to a shortage of human resource. Physicians density: 0.07 physicians/1,000 population. The WHO, 2016 concluded that less than 2.3 health care providers (doctors, nurses, and midwives) per 1,000 will not be enough to have convenient coverage of proper health care (WHO 2016). Hospital bed density: 1.7 beds/1,000 population which are also regarded as insufficient for the health care system. Shortage of pathologists, radiologists and surgical oncologists as well as shortage of drugs have left thousands of breast cancer patients without an option other than relying on traditional medicine which worsens the issue of the delay in seeking health care of breast cancer (Chokunonga 2016).

Table 2 summarizes the national shortage of health staff per cadre in 2009. There was a shortage of 6,940 staff members, meaning Zimbabwe's health system is just 57% staffed to capacity in 2009 and the projection is that the situation is even worse in 2018 because of continued economic hardships from 2009 up to date. In the public and private sectors, health workers are moved more rapidly than training institutions are able to replace.

Table 2. *Shortfall of Health Staff per Selected Cadre, 2010*

Cadre	# of Staff for Full Health System Operations	# of Staff in Place as of January 2009	Shortfall	% of Cadre Staffed
Doctor	1505	508	997	34%
Nurses (RGN)	7688	5087	2601	66%
Primary care nurse	2500	1778	722	71%
Pharmacists	132	37	95	28%
Pharmacy technician	185	90	95	49%
Laboratory scientists	385	245	140	64%
State-certified medical laboratory technician	120	31	89	26%
Environmental health officers	277	64	213	23%
Health services administrator	62	28	34	45%
Total for all cadres nationally*	16049	9109	6940	

Source: MoHCW 2010.

Medical Products and Technology

According to WHO (2018), a well-functioning health system ensures equitable access to essential medical products vaccines and technologies which must be available and affordable, of assured quality and properly used both by providers and patients. They should be available at all times, in adequate amounts, in the appropriate dosages (WHO 2018). However, in Zimbabwe, due to the underfunded health system, there is limited access to medical products such as, screening equipment, laboratory services, surgery, radiotherapy and chemotherapy equipment, and drug supplies. Health facilities do not have enough funding to secure adequate stocks of drugs, and cancer equipment (WHO 2010). Due to reduced government capacity to acquire medical products, NGOs contribute significantly in the procurement of these products though shortages still exist (CAZ 2016).

Health Information

A well performing system ensures the production, analysis, dissemination and use of timely and reliable information which is used by policy-makers, planners, health care providers, development partners and the general public to track health-system performance, to support better health policies and make effective health-related decisions (WHO 2018). In Zimbabwe, evidence established a lack of strong breast cancer registration system for tracking breast cancer mortality and the causes of the increase of breast cancer mortality in Zimbabwe. A weak health information system is demonstrated by the lack of data quality, timeliness and accurate information on breast cancer (MoHCW 2016). A strong and reliable Health Management Information System is crucial to ensure availability of timely and accurate information on key breast cancer health indicators (CAZ 2016).

Service Delivery

Good health services deliver effective, safe and quality health interventions to those who need them, when and where needed, with minimum waste of resources and include all services dealing with the diagnosis and treatment of disease, or the promotion, maintenance and restoration of health. They include personal and non-personal health services (WHO 2018). Zimbabwe health care services for breast cancer are centralized and not spread out to other remote areas of the country, there are transport and accommodation challenges which lead to the delay to seek health care treatment of breast cancer. Moreover, the way the existing centers operate is sub-optimal because of lack of enough radiotherapy equipment, limited chemotherapy drugs, shortage of medication to control pain and shortage of skilled staff. Inadequate supplies of chemotherapy drugs in state pharmacies drive patients to go to private pharmacies which are expensive and very few people can afford. On the other hand, wealthy patients go out of the country to seek medical services compromising national income (CAZ 2015).

Additionally, as mentioned earlier that Zimbabwe adopted the 2008 Ouagadougou Declaration on primary health care which include three more building blocks above those that are used by WHO. The three blocks are community ownership and participation, partnerships for health development and research for health (WHO 2008). The health system of Zimbabwe is underfunded which makes it difficult for the implementation of the community capacity building since there is need for health promotion strategies which need to be funded to empower communities to adopt healthier lifestyles so as to prevent breast cancer (Chokunonga 2016).

Evidence show that there is lack of collaboration across health sector and other different sectors, also the health sector does not have much influence when compared to other sectors (MoHCW 2014), concluding that the Partnership for Health Development is not well functioning in Zimbabwe. Furthermore, there is lack of research on health issues in Zimbabwe; there are gaps in most health issues which are awaiting research. For example there are few breast cancer researches that have been done in Zimbabwe the reason why I decided to do this study.

Challenges in the Zimbabwe Health System

In Zimbabwe the health system faces a number of challenges which hinder it to create and support breast cancer health care programs that can reduce the delay in seeking health care of breast cancer and improve breast cancer outcomes through early detection of breast cancer. In addition to the financial and organizational problems inherent in any health care systems, the main challenges faced by the Zimbabwean health system are:

Centralized services which are not spread out to other remote areas of the country where delay in seeking health care of breast cancer is high. Majority of the population live in rural areas and do not have access to cancer services due to transportation and accommodation challenges which lead to the delay in seeking health care of breast cancer (CAZ 2015).

Lack of coherence in implementing policies that address the delay to seeking health care of breast cancer because the health sector does not have influence compared to other sectors(MoHCW 2014).

Underfunded health system which leads to shortage of drugs and medical equipment of breast as s a result people need to purchase drugs privately which most people cannot afford considering the economic hardships in the country hence the delay in seeking health care of breast cancer. Improving breast cancer treatment outcomes in Zimbabwe requires a significant increase in social spending and macroeconomic policies that prioritize breast cancer in financial allocations (MoHCW 2013). Due to the underfunded health system, there is no money to train pathologists, radiologists, and surgical oncologists (MoHCW 2017).

There is a shortage of cancer specialists in the country. Due to underfunded health system, there is no money to train more workers health workers including cancer specialists whereas the few that are available are not equally distributed, they are based in major hospitals which are located in urban areas and they are burdened with heavy workloads. Therefore, eradicating the delay to seeking health care of breast cancer becomes difficult (Chokunonga 2016).

Limited access to medical products leading to shortage of screening and surgical equipment such as: laboratory services, surgery, radiotherapy and chemotherapy equipment, and drug supplies due to the underfunded health system (CAZ 2016).

Lack of accurate data due to weak registration system and health management information system that yield misleading breast cancer health indicators hence measuring the performance of health system on reducing breast cancer burden as well as reducing the delay in seeking health care of breast cancer becomes difficult (CAZ 2015).

Poor governance and leadership, resulting in the lack of political will to channel resources such as cancer drugs, medical equipment and health workers to reach rural and marginalized areas where delay in seeking health care of breast cancer is high as well as poor governance in resource allocation (MoHCW 2014).

Poor health service delivery due to centralized services which are as a result of underfunded health system. People have to wait in long queues before they receive the services and in cases of breast cancer, most patients are referred to provincial hospital which is accompanied by challenges such as transport and accommodation problem hence worsening the delay to seeking health care of breast cancer.

Discussion

Prevalence and incidence of breast cancer are high in high-income countries compared to low income countries. Africa has a low breast cancer incidence rate but high mortality rates compared to other continents. In Zimbabwe, breast cancer cases are increasing by almost 30% yearly, which according to this study, the increase is due to the challenges which exist in the health system that are leading to the delay in seeking health care of breast cancer. The reported cases are probably

an underestimate as many breast cancer cases are not captured because most patients do not seek health care (CAZ 2015). However, based on inevitable economic and practical constraints, all health care systems are compelled to make trade-offs among four main factors: access to care, scope of service, quality of care, and cost containment and these factors are directly linked to the delay in seeking healthcare of breast cancer. No perfect health care system exists, even in the wealthiest countries (Talpur et al. 2011).

According to the evidence gathered from a number of government reports and studies concerning the Zimbabwe health system and the delay to seeking health care of breast cancer among Zimbabwean women, Zimbabwe Health System is still struggling to adopt the WHO health system framework due to challenges that are faced by the health system. Evidence has shown that there are challenges in the Zimbabwean health system that are leading to the delay in seeking health care of breast cancer hence the rise in mortality and morbidity of breast cancer. The main challenge is the underfunded health system which is leading to centralized services of breast cancer, shortage of drugs and medical equipment, shortage of cancer specialists as well as shortage of cancer drugs, screening and surgical equipment. Lack of reliable information, lack of coherence in implementing policies that address the delay to seeking health care of breast as well as poor governance and leadership in the country are also challenges in the health system causing the delay of seeking breast cancer heath care (CAZ 2016).

As mentioned earlier that there is no perfect health care that exist even in wealthy countries. For example, there is breast cancer increase of between 30-40% annually in Latin America (Justo et al. 2013) compared to 30% annual increase in Zimbabwe. Among the problems that contribute to the existing breast cancer burden in Latin America is the health care system: limited access to treatment, insufficient physical and human resources for clinical care, and poor quality control of health services. Cancer data in Latin America are scarce specifically in Mexico because there is no national cancer registry, and time intervals for medical attention among patients with breast cancer are unavailable, therefore the delay in seeking health care of breast being the main contribution to the breast cancer burden (Villarreal-Garza et al. 2013).

As mentioned earlier that the main challenge in the Zimbabwean health system leading to the delay of seeking health care of breast cancer is underfunding. Figure 2 shows that out of five Sothern African countries which are South Africa, Zambia, Mozambique and Botswana, Zimbabwe has the most underfunded health system from 2004-2014 (NHA 2014). On the other hand, other African countries like Malawi, Rwanda and Zambia are doing well to improve their health systems, they are some of the few countries that met the Abuja declaration target to allocate at least 15% of their annual budget to health care by 2015 (WHO 2016). Due to the underfunded health system, the health service delivery is poor and Zimbabwe cannot meet the WHO recommendations because there is shortage of health care providers especially cancer specialists as well as shortage of medical equipment and drugs. The Ministry of Health cannot afford to train more health workers and to pay well those who are already in the system as well as providing enough drugs and medical equipment to the health care centers leading to centralized services

which makes it difficult for marginalized population to access the services (CAZ 2015). Tanzania is also facing a similar situation of shortage of health care providers because 30% of the country's healthcare professionals leave the health sector after receiving medical training because of poor incentives which is also affecting the well-functioning of its health system which is also causing the rise in breast cancer death which are projected to increase by 80% by 2030 (Burson et al. 2010).

Another challenge in the Zimbabwean health system leading to the delay in seeking health care of breast cancer is the shortage of medical equipment and drugs for breast cancer. There is need for collaboration between the National Pharmaceutical company and NGOs to ensure a coordinated response and maintain adequate stocks for breast cancer treatment. This will ensure equitable distribution of resources and effective management in controlling breast cancer prevalence and mortality and also avoiding the delay in seeking health care of breast cancer (MoHCW 2016). There is also need to collaborate with more NGOs and INGOs to acquire more funding in order train more cancer specialists and other health care workers as well as hiring some from other countries since they are the most important link in making sure that people are in a position to access cancer screening and treatment in order to reduce their risk of breast cancer development. Improvement on the services for early detection of breast cancer at all levels followed by a good referral system, that is, referral centers need to have the capacity to take up the referred cases as needed. Furthermore, cost-effective breast cancer screening services are not available and there is need to be made available for easy access to cancer screening services (Nyakabau 2014).

Furthermore, the lack of reliable breast cancer health information, hence measuring and monitoring the performance of the health system in the achievement of national and global targets for breast cancer becomes difficult. There is crucial need for improvement in the health management information system in order to come up with reliable breast cancer indicators. Accurate information is critical for measuring performance, equity, effectiveness and efficiency of policies and intervention. Moreover, quality Health Management Information System is integral for implementing evidence-based policies and equitable resource allocation (Chokunonga 2016).

Good governance plays a major role in improving the responsiveness of health system, however in Zimbabwe most of the challenges faced by the health system in prevention and treatment of breast cancer such as the lack of funding of breast cancer programs, shortage of breast cancer drugs and medical equipment, lack of coherence in implementing policies, as well as poor health registration system are all as a result of poor governance. In Zimbabwe, there is need to recognize that health is a political issue and it extends beyond the health sector. Political actions of different sectors such as infrastructure development, legislation, finance and NGOs are influential on how resources are distributed thus governance influences inequities and disparities of cancer health care through actions taken by policy makers (Reich et al. 2016).

Conclusion

In conclusion, the findings indicated the Zimbabwean health system is struggling to adopt the WHO health system framework in provision of health services to prevent and control breast cancer, mainly because of the underfunded health system. The underfunding of the health system is a serious matter since it is characterized by a number of challenges that lead to the delay to seeking health care of breast cancer which then result in the increase of breast cancer prevalence and mortality among Zimbabwean women. The challenges associated by the underfunded health system are centralized services of breast cancer, shortage of drugs and medical equipment, shortage of cancer specialists as well as shortage of cancer drugs, screening and surgical equipment. Lack of reliable information, lack of coherence in implementing policies that address the delay to seeking health care of breast as well as poor governance and leadership in the country.

Though there has been significant improvement in raising awareness on cancer prevention and early detection in Zimbabwe by the Cancer Association of Zimbabwe. Although the Ministry of Health and other partners in cancer control are prioritizing the policies of breast cancer and implementation of convenient way forward on breast cancer prevention and treatment, it has not been sufficient to reduce the delay of seeking health care of breast cancer in Zimbabwean women. The evidence provided by this study suggested that the challenges embedded in the Zimbabwe health system could potentially contribute to the delay in seeking health care of breast cancer.

Recommendations

Multi sectorial approach - The Health sector should collaborate with different sectors of the economy and stakeholders to address the key challenges leading to breast cancer mortality and to explore the common interests and establish coordinated response to promote seeking health care of breast cancer at its early stages. Additionally, this ensures shared goals for delay in seeking health care of breast cancer across all sectors thus strengthening breast cancer interventions.

Improving Health Information system - There is need for the Ministry of Health to strengthen the breast cancer registration system in order to track breast cancer mortality and the causes of the increase of breast cancer mortality. A strong and reliable Health Information System is crucial to ensure availability of timely and accurate information on key breast cancer health indicators.

Leveraging available resources - Leadership should aim to provide accountability, efficiency and harmonization of scarce resources between urban and rural areas to ensure they are distributed equitably depending on contextual needs.

Available private or non-profit services for the cancer community should attempt to fill in the gaps left by government health services and address the issue of delay to seek health care of breast cancer.

Acronyms

AIDS	Acquired Immune Deficiency Syndrome
BSE	Breast Self-Examination
CAZ	Cancer Association of Zimbabwe
CBE	Clinical Breast Examination
HIV	Human Immuno-Deficiency Virus
MRI	Magnetic Resonance Imaging
NHA	National Health Accounts
USA	United States of America
UHC	Universal Health Care
WHO	World Health Organization
MoHCW	Ministry of Health and Child Welfare
SAP	Structural Adjustment Program

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