Ward Based Mobile Cervical Cancer Screening and Education Programme

A proposal submitted to:

The Rotary Club

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"Cancer Can Be Prevented, It Can Be Cured If Detected and Treated Early"

1.0 Introduction and Background

The cancer burden has continued to rise with the disease noted as a leading cause of death globally. The World Health Organisation (WHO) estimated that 7.6 million people died of cancer in 2005 and 84 million people will die in the next 10 years if there is no action to prevent and control the disease. It has also been projected that 70% of all cancer deaths occur in low and middle-income countries, such as Zimbabwe, where there are limited or non-existent resources for prevention, diagnosis and treatment of cancer.

In Zimbabwe, cancer is also acknowledged as a major cause of morbidity and mortality with over 5000[1] new diagnoses being made and over 1000 deaths per year. The total number of new cancer cases recorded among Zimbabweans in 2010 was 4 520 comprising of 1 837 (40.6%) males and 2 683 (59.4%) females[2]. These statistics are also widely acknowledged as understated, as many cancers are not captured by the routine National Health Information System because many patients do not present for treatment or register the deaths. This national cancer burden is envisaged to continue rising due to an aging population.

In Zimbabwe, the HIV and AIDS pandemic is augmenting the rate of HIV-related cancers, with 60% of new cancers being associated with HIV and AIDS. Zimbabwe is severely affected by the AIDS epidemic, with a prevalence rate of 13.6%. Regional statistics also show that, seventy percent of cervical cancer cases in Sub-Saharan Africa are caused by the human papilloma virus (HPV), which is also sexually transmissible.

The global response agenda is fundamentally rooted on reducing the incidence, morbidity and mortality of cancer and to improve the quality of life of cancer patients in a defined population. There is conviction within the health fraternity and amongst development practitioners in cancer services that the cancer burden is preventable. The WHO notes below:

Cancer is to a large extent avoidable. Many cancers can be prevented. Others can be detected early in their development, treated and cured. Even with late stage cancer, the pain can be reduced, the progression of the cancer slowed, and patients and their families helped to cope. WHO Cancer Control Series 2007

The focus in any public health response has therefore been placed on the four (4) key components of cancer control: Prevention, Early Detection, Treatment and Palliative Care. Early detection of cancer has been identified as a key strategy in reducing cancer deaths. In Zimbabwe, the Ministry of Health and Child Welfare (MoHCW) through the National Cancer Control and Prevention (NCCP) Programme has led the national response strategy and is currently finalizing the National

[1] National Cancer Control Strategy 2013-2017 (NYP)
[2] National Cancer Registry Report, 2010

Cancer Prevention and Control Strategy 2013-2017. The Cancer Association of Zimbabwe has over the past 50 years worked with the MoHCW in this regard.

2.0 Statement of the Problem

Despite the acknowledgement that the existing cancer burden is preventable, new cases and deaths remain high and this is mainly due to the lack of information and knowledge that would facilitate prevention and early detection amongst the general population. Individuals are not aware of the basic facts of the disease, its risk factors and how to minimise exposure to the risks. Like in many other countries, the majority of Zimbabweans have continued to engage in lifestyles that continue to place their health at risk of cancer and these include smoking, alcoholism, lack of physical activity and unhealthy diets. There is a large cancer knowledge gap among general population of Zimbabwe.

In addition to the knowledge gaps on prevention, the majority of the cancer patients present with the condition very late resulting in less chances of treatment success. Early diagnosis not only increases the chances of treatment success but results in lower and affordable treatment cost. Late diagnosis is mainly due to lack of knowledge among patients who consult clinics when they are at advanced stages. Several empirical studies prove that improved survival rates for cancer depend upon the diagnosis of cancer at an early stage. However, the disease is not being treated with the urgency it deserves due to the widespread lack of knowledge. Although there is overwhelming evidence on the relationship between cancer and STIs including HIV and AIDS, there is also very limited integration of prevention and management services for these conditions. This is coupled with a weak referral system. Currently, there are funding constraints and inadequate skills for cancer prevention and control. This scenario therefore, calls for an urgent availing of cancer screening services and information dissemination to dispel all the myths and misconceptions. The current scenario calls for a well-integrated approach to the national cancer response.

3. Project Intent - Proposed Response Strategy

It is within the context and backdrop of the increasing cancer burden and the notable gaps in cancer screening, awareness and prevention amongst the general populace that the Cancer Association of Zimbabwe herein referred to as the Cancer Centre, hereby proposes a 1-year intervention project named: "**Cervical Cancer Screening and Education Programme".** In line with the identified need, the project goals and objectives are aimed at providing cancer information and mobile screening services in rural areas:

3.1. Project Goal:

To reduce late presentation (3rd and 4th stages) of common cancers (cervical cancer) through cancer information dissemination and screening

3.1.1. Specific Objectives:

(i) Educate the rural women in remote areas about risk factors and preventive measures of cervical and breast cancer
(ii) Screen the women of cervical cancer, treat precancerous lesions and facilitate treatment of identified cases
(iii) Provision of psychosocial support and referral channels to rural women diagnosed of cancer.

3.2.0. Project Design

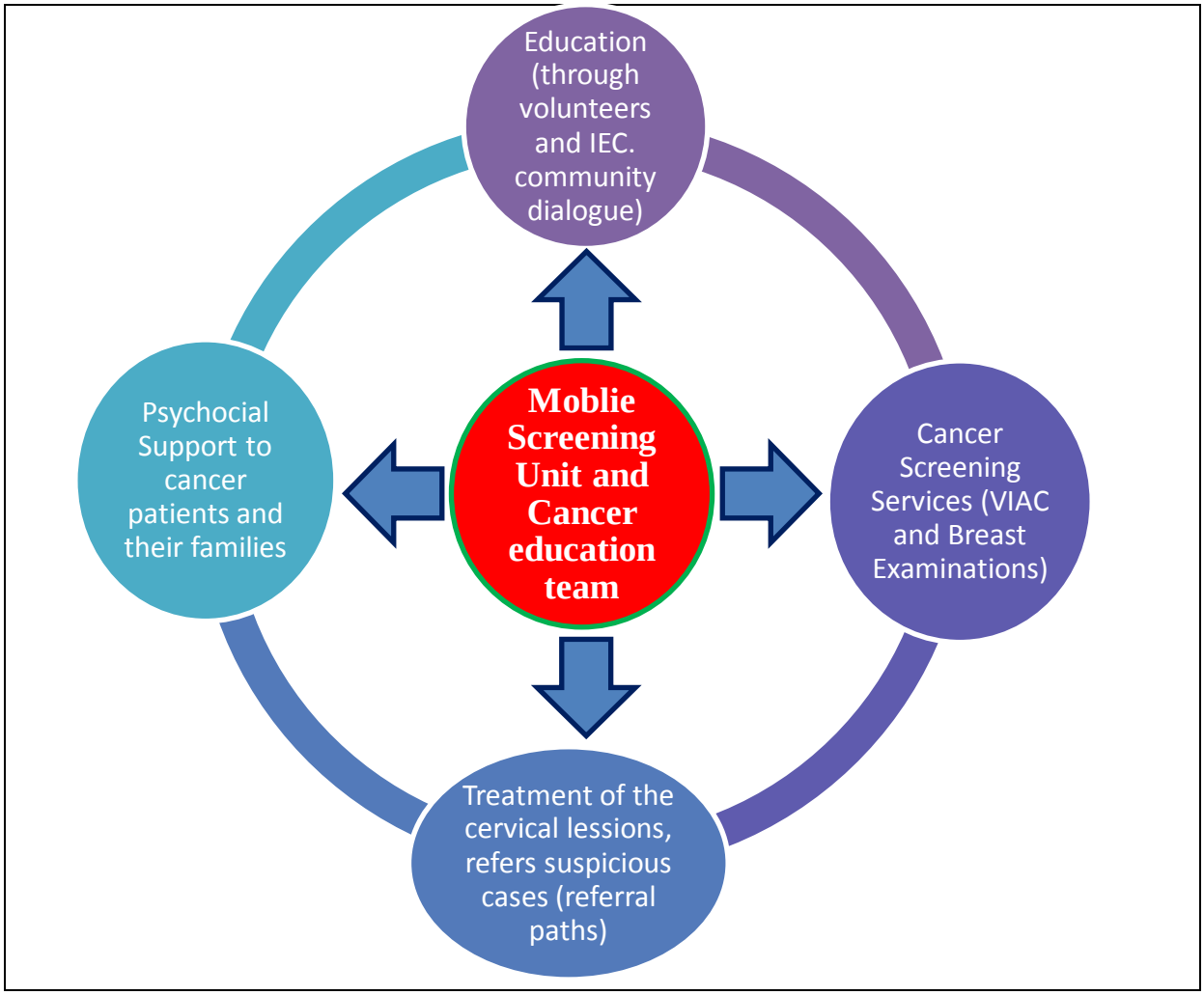
This project will see the Cancer Association running a Mobile VIAC (Visual Inspection with acetic acid and Cervicography) Clinic for the screening of cervical cancer, treating precancerous lesions and doing clinical breast examination for women in selected remote areas. This is a double barrelled project through which the organisation intent to offer two mobile services (mobile based cervical cancer education and Mobile screening) at once. This is because once educated of cancer the women need the screening facilities, referrals and follow up for treatment services. Thus our mobile clinic will incorporates treatment of the abnormal cells of the cervix using **Cryotherapy** and refers suspicious cases accordingly.

The cancer information dissemination is an integral component of this project. Information will be disseminated through the development and distribution of IEC materials with high impact messages on basic facts on cancer, prevention and early detection guidelines and/or recommendations. The IEC materials will include posters and flyers, which will be distributed to all the districts of operation. Female volunteers in remote districts will also be recruited and capacitated to disseminate cancer information in their respective wards. These volunteers and other community leaders will provide a conduit through which communal women will be mobilised for screening.

The Cancer Association will work collaboratively with the MoHCW and will also make use of these partnerships to lobby and advocate for the development and rollout of cancer management protocols as well as resource mobilisation for the necessary equipment that would facilitate early detection and diagnosis.

The mobile cancer education and screening unit will also combine cancer education for all age groups including in school and out of school youths thereby laying a foundation for all future cancer intervention programmes. The proposed intervention (mobile Unit) has four maim components as shown in Fig 1 below:

Fig 1. Four Pillars of the Proposed Mobile Cancer Project



3.2.1. VIAC

The mobile project mainly consists of the VIAC equipment housed in a van/vehicle, which is suitable for the rugged rural terrain. VIAC is a simple procedure where by a health care simply swabs acetic acid (vinegar) on the cervix and waits for 3 minutes for any colour changes. Normal cervical tissue remains unchanged but the damaged tissues such as the precancerous or cancerous lesions turns white. A high powered camera will then be used to take images of the cervix which in turn will be viewed on the screen.

There are a number of screening types that can be used for cervical cancer screening. However, despite being effective some of them are not suitable and sustainable for developing countries. Pap smears and HPV tests requires highly skilled practitioners and state of the art laboratories hence cannot be sustainably availed to the general population at a large scale in the immediate

future. It is in line with this foresight that the Cancer Association of Zimbabwe plans to carry out extensive district and ward based VIAC screening services. This is a cost effective intervention in that the mobile screening unit can cover a larger geographical area and helps to bring the service to the people rather than the people travelling long distances to seek for the screening services.

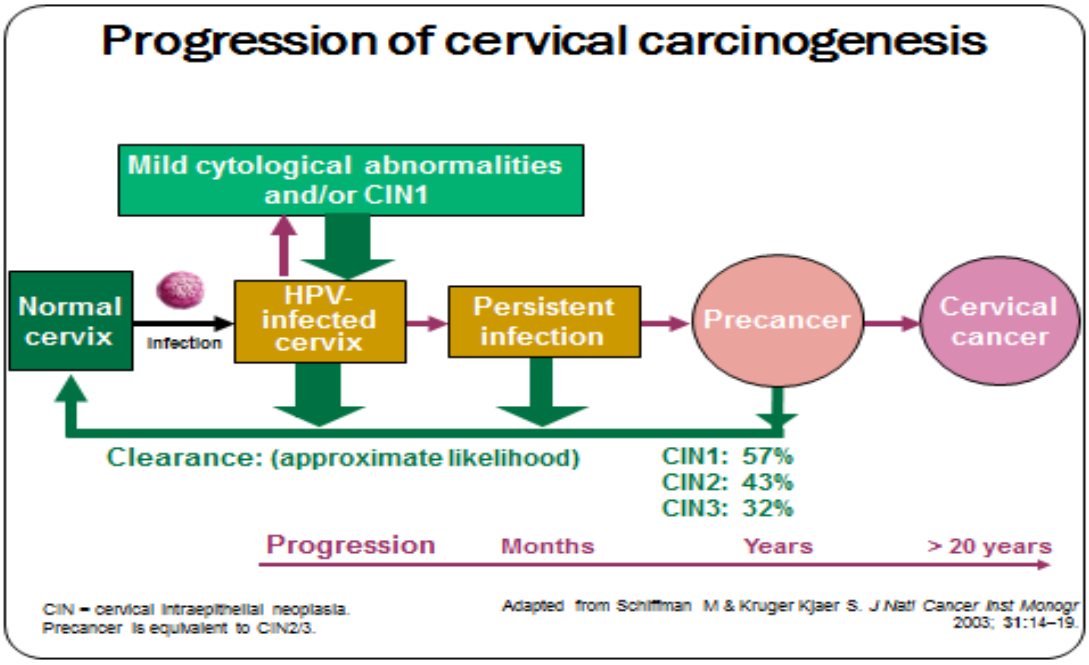
VIAC also enables a client to receive her results on the same day unlike pap smears and HPV test hence the client will leave the screening centre well informed of the decision she has to take. This makes VIAC a suitable screening method in our context where there are little resources for follow-up. Lost to follow up is one of the major current challenge in ART programme hence VIAC will enable us to avoid the some pitfall.

4.0. Justification of the mobile cervical cancer screening project

Information from the National Cancer Registry of Zimbabwe (2010) shows that cervical cancer contributed 32.2% to the total new female cancer cases reported in that year. Cervical cancer also contributed 15% to the total deaths reported in 2010. It is these alarming statistics that provides the rationale for this mobile cervical cancer screening and education project. Moreover, the available cancer education programmes are mostly in towns and messages are channeled through the mass media which is not accessible to the rural/ geographical locations that we intent to carry out this programme. The available screening and treatment facilities are highly centralized in Zimbabwe's major two cities Harare and Bulawayo leaving the peripheral rural areas without screening and treatment services. Over 80% of all the cancer cases reported presents late at an advanced stage thereby reducing the chances of treatment success. This is due to less knowledge and myths and misconceptions about the disease. Thus this project will provide the necessary information on cervical and breast cancer to all rural women and at the same time offering cervical cancer screening and treatment of precancerous lesions services to selected remotest districts of the country. This project will therefore, enable us to fulfill our mission of reducing the national cancer burden in Zimbabwe.

Cervical cancer is a cancer that starts in the cervix, in the lower part of the uterus (womb) that opens at the top of the vagina. The condition is linked to various strains of Human Papillomavirus (HPV) which is sexually transmitted infection. Cervical cancer usually develops slowly and starts as pre-cancerous cells which if not detected and uncontrolled will ultimately develops into cervical cancer within a period up to 20 years (refer to Fig 1. below). Cervical cancer can therefore be prevented through proper screening to detect the abnormalities of the cervix before the precancerous cells ultimately develop into cervical cancer. This does not only increases the changes of treatment success but also significantly reduces the treatment cost to the patient and the nation at large. The proposed project is a "screen and treat" intervention that will help to break the progression of cervical cancer in women thereby reducing the number of women dying of this largely preventable disease.

Fig 2. Development of Cervical Cancer



It is therefore crucial to avail free cervical cancer screening services to the rural areas of Zimbabwe where the majority of women do not afford the cost of transport to centralised screening centres and payment of the screening service.

5.0. Expected Results

The project will be managed using a Results Based Management approach. The above-mentioned strategic actions are envisaged to contribute to the realisation of results in the short, medium and long term. The results chain that recognises results at four key stages is therefore a suitable framework to describe the expected results: Inputs and Processes, Outputs, Outcomes and Impact.
The inputs in this project will primarily be the finances for staffing, transport, venues and road shows; human resources and materials such as the vehicles and IEC materials. The key processes relate to the activities, which include cancer education, screening, cryotherapy, distribution of IEC materials, community dialogue meetings and advertisements. These activities are expected to produce results immediately and/or in the very short term, the outputs.

Outputs expected in this project are:

- Improved access to accurate and adequate cancer Information
- Improved access to cervical and breast cancer screening services
- Improved early detection of cervical and breast cancers

In the medium to long term, some behavioural changes are expected to set in amongst the recipients of the awareness campaigns due to a culmination of continued exposure to information and discussions at the community level. These changes, referred to as project outcomes, may be witnessed beyond the one-year implementation timeframe.

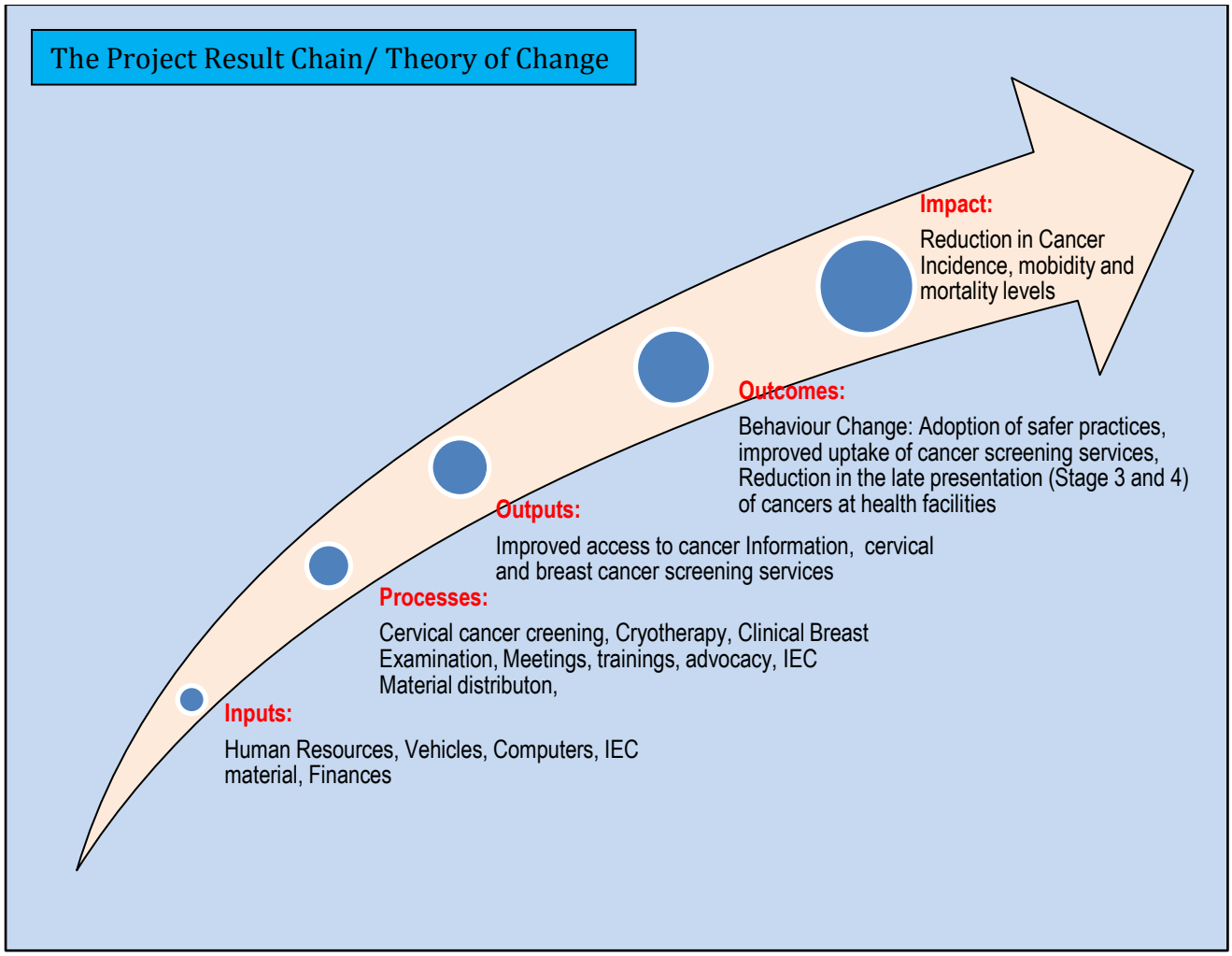
Outcomes envisaged under this initiative include:

- Adoption of safer practices and reduction in populations exposed to lifestyle related risk factors e.g. smoking and alcoholism
- Improved uptake of cancer screening services
- Reduction in the late presentation (Stage 3 and 4) of cancers at health facilities

Due to the strong emphasis on prevention and screening, it is expected that the project will contribute to the broad and long-term change in the incidence, morbidity and mortality of cancer in Zimbabwe, the ***Impact***. It is important to note that changes at impact level are usually as a result of a combination of response strategies and interventions and therefore is plausible to consider this project as having a contribution to this desired change.

The diagram below illustrates the above theory of change:

Fig 3: Project Results Chain/Theory of Change



6.0 Project Implementation

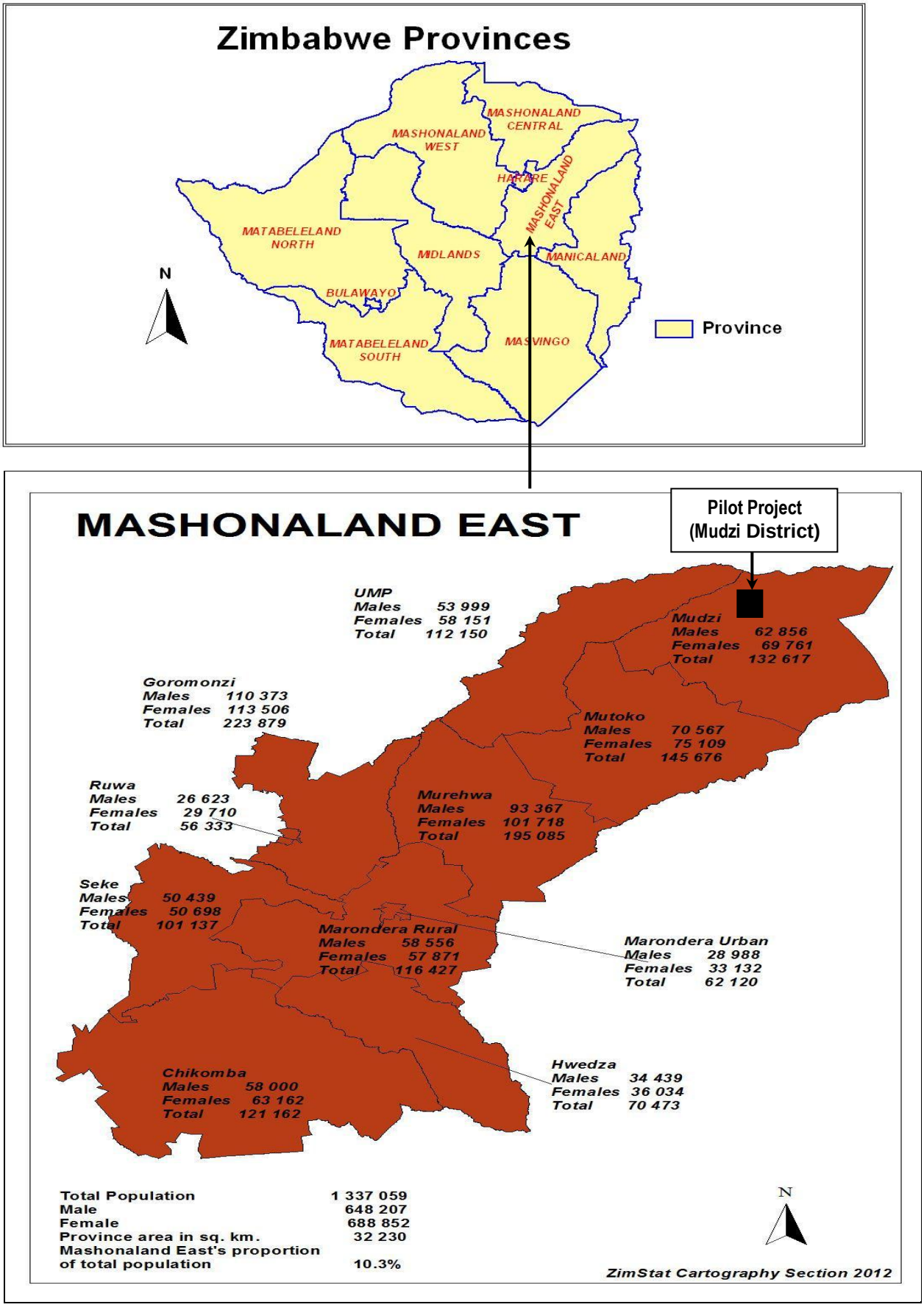
The project will be implemented at ward level and the Cancer Association of Zimbabwe will be responsible for the administration of the project through its currently established management structures. The mobile team will be based at the provincial capital with frequent traveling to all the districts for camping in respective wards. The mobile team consist of three VIAC trained nurses, (two) 2 drivers and one (1) programme officer and two (2) support officers and ward based volunteers. Community participation is considered very crucial in this project thus the volunteers will be recruited to enable easy mobilisation of people for participation in both screening and education programmes.

The implementation will be guided by a detailed work plan which will specify who is responsible for doing what and when. The Cancer Centre team will work collaboratively with MoHCW, communities and other stakeholders to mobilise the communities. Rural health centres and ward meeting places, schools and health centres will be used as the screening centres. Regular review meetings will be held at community, regional and national level to assess the progress and make adjustments timeously.

6.1 Target Area and Population

The project will start with Mudzi District in Mashonaland East Province district with the screening targeting all sexually active females and education targeting both males and females. Mashonaland East Province in thefifth most populous province according to the 2012 Census preliminary results, this gives the Cancer Association of Zimbabwe an opportunity to meet more beneficiaries. Mudzi district in one of the remote districts in Zimbabwe, it shares boundary with Mozambique at Nyamapanda Boarder Post. Pilot testing this project in Mudzi is also believed to derive a lot of lessons that will improve other new cancer mobile services to come.

Fig 4. Map showing Provinces of Zimbabwe and detailed population data for Manicaland Province.



7.0. Risks and Assumptions

The attainment of the envisaged results is reliant on a number of assumptions relating to the external factors that have the potential to influence or have an effect on project implementation and the long-term sustainability of benefits and which generally which lie outside the project management's control. The table below provides a summary of the risks, likelihood of occurring and the proposed mitigation strategies.

Risk Mitigation Matrix

Risk area	Risk likelihood	Risk level	Risk mitigation
Continued capacity gaps in the formal health system	Medium	Medium	Strengthen advocacy for establishment of Cancer Detection Guidelines and procurement of detection and diagnostics materials
Political uncertainties	High	High	Maintain an apolitical stance, clear focus on the core objectives, linkages internally and externally
Economic uncertainty	Medium	Low	Resource mobilization
Funding scale down	Medium	Medium	Local fundraising initiatives to complement external sources

8.0. Monitoring and Evaluation

A Results-Based M&E System will be used to track the project's progress towards achieving the desired results. Central to this system will be Monitoring and Evaluation plan guided by clear results statements, indicators for measuring these results and the dissemination and communication plans.

The results will be based on the results chain earlier noted and this will be the basis from which indicators to ascertain whether these results have been achieved or not will be developed. The project team will make use of standard data collection tools to collect data relating to these indicators on an on on-going basis. Data relating to outputs will be collected, analysed and reported on a monthly basis. The data collection tools have been designed to feed directly in the national health data grid in the Ministry of Health and Child Welfare.

Data relating to the outcome and impact level indicators will primarily be obtained through secondary review of literature on national surveys such as the Demographic Health Survey (DHS) and the Multiple Indicator Monitoring Survey (MIMS). However, a longitudinal approach of tracking these results through regularly collecting data on the Knowledge, Attitudes and Practices of individuals relating to Cancer and Cancer Prevention will be useful. Central to this, a Baseline and End of Project evaluation would be extremely instrumental in determining the influence of the project on these higher-level results. It is therefore proposed that a comprehensive Baseline Survey will be conducted on project inception and an End of Project Evaluation be undertaken at the end

of the project. These surveys will help demonstrate the change facilitated by the programme whilst the latter will also examine how the project maintained its relevance, efficiency, effectiveness and sustainability.

In addition to tracking progress towards results, a systematic and regular assessment of the usage of resources and compliance to work plan will be a traditional component of the M&E activities. Conducting monthly budget variance and burn rate analysis as well as activity and target compliance monitoring will go a long way in addressing efficiency gaps and being accountable to project funders and other stakeholders.

The project's monitoring and evaluation will therefore have the strength of measuring progress and compliance at all levels of the results chain for accountability, organisational learning and performance improvement.

9.0. Project Benefits

This project presents a unique and distinct advantage of having multi-directional benefits that are witnessed and experienced at different levels including ordinary Zimbabweans and they're communities, the nation's strategic response, implementers and funding partners. Statements of the benefits are stated below:

Summary of Benefits of the Project

- This project will contribute to improved health outcomes as articulated in the results chain and therefore will support the national health response and realisation of its vision of improving the quality of life of Zimbabweans.
- The project will play a pivotal in supporting the National Cancer and Prevention Strategy thus presenting a model of Public Private Partnerships that may be replicated and created a more sustained health delivery system.
- Funding for this intervention would also assist the Cancer Centre, which has been previously affected by staff turnover due to limited financial resources, to provide sustained quality services in the communities.
- The project demonstrates high Value for Money (VfM) due to the envisaged high benefits and returns for the Rotary Club Community Social Responsibility (CSR) investment. The design allows for wider reach and further replication through the community model.
- The implementation strategy and collaborative partnerships with existing MoHCW structures and the communities will facilitate ownership and sustainability hence providing an opportunity for Cancer Association and the Rotary Club to facilitate a legacy.
- The dissemination strategy provides a good platform for a nationwide visibility of the Rotary Club and Cancer Association on a commendable cause of enhancing the wellbeing of Zimbabweans. The banners, advertisements, IEC materials bearing the logos of the Cancer Association and the Rotary Club will undoubtedly go a long way in strengthening the goodwill and investment value of both organisations.
- Gives the rural people an opportunity for cancer screening and education services since most of the screening and education facilities in Zimbabwe are highly centralised
- This is a first project of its own kind hence gives an opportunity to document lessons learnt that will be used in the implementation of similar projects elsewhere. The Cancer Association of Zimbabwe intends to spread the mobile screening services to other remote geographical areas once this pilot project become successful.

10.0. Capability Statement

The Cancer Association of Zimbabwe (CAZ) - Harare (Cancer Centre) is a non- profit making organization which was started in 1961.The first Cancer Centre in Zimbabwe was formed in 1959 in Bulawayo. The Cancer Centre in Harare was formed by a group of cancer survivors and volunteers in a bid to support each other morally, emotionally, spiritually and physically.

Since the beginning of this noble service, the Cancer Association has continued to grow in providing cancer support services and cancer awareness programmes. In 2011 the Association is celebrated 50 years of service and commitment to cancer prevention, care and support. A number of activities were organized and implemented in this view to give attention to the rising disease burden due to cancer in Zimbabwe and the world at large.

The Association is run by a team of board members who have expertise in various areas pertaining to the operations of the organization. The board includes oncologists, legal practitioners, finance and management personnel. The board members give policy direction to the organization, whilst the health professionals including qualified Nurses, Counselors, Health Promotion Practitioners and volunteers at the centre are responsible for the day to day running of the institution. The Monitoring and Evaluation Department is responsible for the standardization and monitoring of all the organizational programmes. This ensures transparency, effectiveness and efficiency in all our programmes.

10.1 Our Mission

The Cancer Association is committed to "collectively reduce the disease burden due to cancer in Zimbabwe through the promotion of action research, education, supportive counselling, advocacy and other evidence based interventions taking a holistic approach."
The Centre is dedicated to providing the community with information to promote a healthy lifestyle and to increase public awareness in the prevention and early detection of cancer.

10.2. Our Objectives and Core Functions

The Cancer Association of Zimbabwe strives to: -

- Provide supportive and emotional counseling services to those that are diagnosed of cancer and their families
- Carry out awareness programmes with a focus on the most common cancers as well as give information in cancer prevention and management
- Provide complementary health therapies to cancer patients
- Serve as a cancer information resource centre
- Initiate and support formation of support groups
- Screening and Early Detection of common cancers (Currently running a cervical cancer screening Unit)

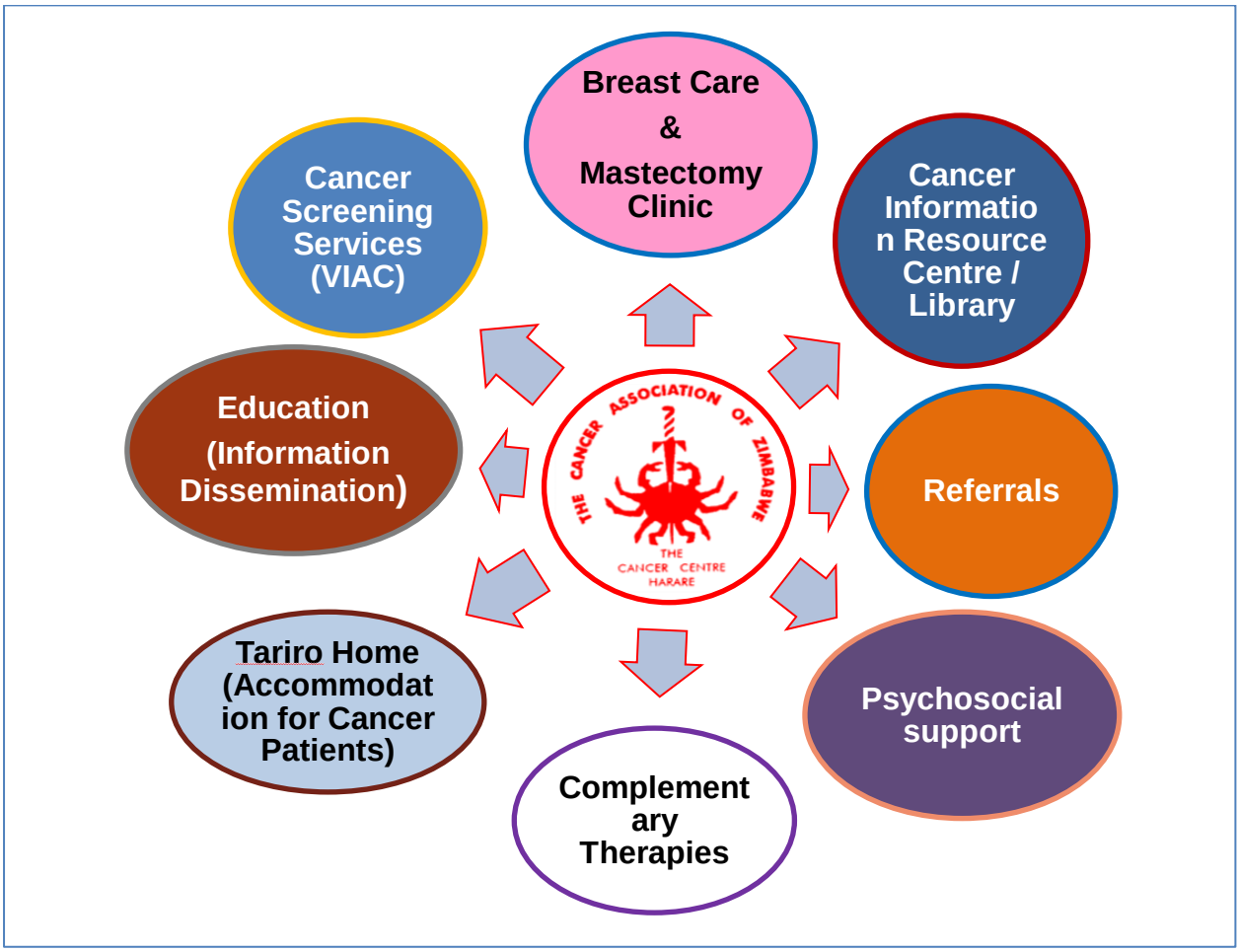
10.3 Education / Awareness Programmes

Prevention and early diagnosis are the thrust of the awareness or education programme at the Cancer Association in Harare. The Knowledge Management Department at the Cancer Association use internal and external lectures, seminars, talks, discussions, exhibitions and expos to disseminate knowledge. This includes sharing information on the most common cancers in Zimbabwe, cancer prevention, the importance of good nutrition, the role of change of lifestyles towards wellness, cancer screening procedures and treatment literacy. The media and Information, Education and Communication (IEC) materials such as brochures and posters are also used to disseminate information widely to the general public. The department works hand in hand with the Health Services Department, which offers free counseling, breast care and breast examination services.

10.4. Health Services

Apart from carrying cancer awareness programmes the Cancer Association of Zimbabwe also carries out some clinical work through the Health Services Department. These include counseling, breast examinations, complementary therapies, injections and chemotherapy drug assistance. The cervical cancer screening unit (VIAC clinic) is currently running and an average of 8 women are getting screened a week.

Fig 3: Summary Core Services offered by the Cancer association of Zimbabwe



10.5. Constraints

- Access to resources for cancer programmes remains limited
- Outreach programmes are not able to cover rural (or remote) areas due to lack of appropriate transport and a limited staff compliment
- Financial constraints since the Association is a non-profit making organization which rely on donations
- Staff turnover as a result of limited funds

11.0. Financial Proposal

This project will require a total of **$368, 094 (US)** to implement its four main pillars in Mashonaland East Province, starting with Mudzi District. Depending with funding, the Cancer Association can choose a few peripheral wards to start off the project. The Cancer Association, depending on availability of funds can also use camping tents instead of a state of the art mobile unit and this option will only need the VIAC equipment and two four wheel drive vehicles rather than the modern mobile unit. A detailed proposed budget has also been attached for review.