

## Chapter 2

# The Role of Primary Health Care in Prevention, Early Detection, and Control of Cancer

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### ABSTRACT

*Cancer is one of the leading causes of death worldwide, and the incidence is growing. Recent evidence shows a reduced risk of dying from cancer. For years Primary Health Care (PHC) has played a vital role in promoting health, but little has been done in emphasizing its role in reducing the incidence of and mortality from cancer through performing early diagnosis. PHC is directly involved in the initial diagnosis of more than 85% of all cancer cases worldwide (Vedsted & Olesen, 2009). PHC also has an important role in the public awareness about the importance of screening, especially in high-risk patient groups. The interaction between the patient and the health service is crucial in ensuring that relevant alarming symptoms are presented and that action is taken at the earliest possible time. This chapter aims to explore the role of primary healthcare in the prevention, early detection, and control of cancer in a developing nation - Saudi Arabia.*

### INTRODUCTION

The global burden of non-communicable diseases (NCDs) is constantly increasing. According to the World Health Organization (WHO), the spread of these diseases presents a global crisis in almost all countries (WHO/PHAC, 2005). The increasing global crisis in NCDs is a barrier to the Millennium Development Goals (MDG) including poverty reduction, health equity, economic stability, and human

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security (Beaglehole et al., 2011). In addition, NCDs are considered a major cause of health inequality (WHO, 2008). The underlying causes of these diseases share modifiable risk factors that are well known and are similar in many countries (Yusuf et al., 2004). In recent years, substantial gains have been achieved all over the world in economic growth, health, and living standards in the past century. This progress is now threatened by the substantial increase of NCDs, especially heart diseases, cancers, strokes, diabetes, and chronic respiratory diseases (Engelgau, 2011).

The United Nation General Assembly (UNGA) held a special session in 2011 to tackle NCDs' burden and mobilize the political leadership to optimize their coordination and consensus for priority actions and interventions in responding to the crisis of NCDs (Hospedales et al., 2011). It was also directed to enhance the development of strategic decisions to reorient population-based prevention, in addition to clinic and hospital-based care policies toward NCDs including cancers (Engelgau et al., 2010). How much focus should be given to the prevention of chronic diseases and cancer, and how much focus should be given to the treatment of those already affected by such diseases is an important policy question that is usually directed to government decision makers everywhere around the world (WBO, 2012).

As cancer is one of the major NCDs, and it is well known to be one of the world's top reasons for mortality, the World Health Organization (WHO) and other organizations are concerned about the integration of cancer prevention, early detection, treatment and palliative care within the context of the National Non-communicable Diseases prevention and control activities at the level of the primary healthcare settings (WHO, 2008). Furthermore, cancer is one of the major cause of premature death worldwide. For example, according to the World Cancer Report in 2014, 14 million new cases and 8 million death cases have been reported (Steward & Wild, 2014). The new number of cases is expected to reach 15 million by 2020 (WHO, 2003), where the developing countries account for 53% of the new cancer cases and 60% of cancer-related deaths. The economic value of disability-adjusted life-years (DALYs) - loss due to cancer amounted to 895 billion USD in 2008 globally. This represents approximately 1.5% of the world's GDP (Busse et al., 2010).

In Middle Eastern countries 467,000 new cases and 323,000 deaths from cancer were reported in 2008 (Boyle & Levin, 2008). The rate increases as communities adopt western lifestyles and become urbanized. In addition, the steady increase in the population's expected age is attributed to be one of the key factors that contribute to the growing occurrence of diseases. Some factors are considered in contributing to the ongoing increment of cancer which include, among others, population ageing; globalization of risks; poverty, which increases acutely in less developing countries; in addition to the longstanding challenges of infectious diseases (Steward & Wild, 2014). These factors double the burden of diseases, which place enormous strains on resource poor health systems.

Remarkable and sustainable National Cancer Control Programs (NCCPs) were developed and implemented in the Kingdom of Saudi Arabia(KSA) and other Gulf Cooperation Council (GCC) countries. Their priority goal is to enhance the public health approaches for the prevention and control of cancer with a special focus on primary healthcare, which fits into the broader WHO framework to support health systems and act as part of the action plan implementation for the Global Strategy of Prevention and Control of NCDs, which was endorsed by the World Health Assembly in May 2008 (Al-Eid, 2007) and emphasized in 2011 (WHO, 2008). The primary healthcare system in many countries including Saudi Arabia is still based on providing management of acute cases and follow-up care rather than initiating prevention and early detection of chronic NCDs including cancer (Pruitt & Epping-Jordan, 2005). A patient referral system is not in place and government policy allows self-referral on demand to secondary and tertiary facilities. Thus, patients often use these higher-level facilities because they are aware that primary care facilities lack the capacity to manage NCDs in terms of their ability to perform clinical investigations and provide proper medications.

## **THE GLOBAL BURDEN OF CANCER**

Cancer is one of the main causes of death everywhere in the world. In 2011, around 7.9 million people died from cancer worldwide, which is approximately 13% of the total global deaths. However, it is presumed that the number of deaths from cancer will increase to reach 12 million by 2030 (WHO, 2013). Worldwide, breast, colorectal, and lung cancer are the most common and leading causes of cancer death among women, whereas lung, prostate, colorectal, and liver cancer are the leading cause of cancer death among men (NCI, DHHS & CDC, 2013). Liver cancer is the third most common cause of cancer mortality, with nearly 550,000 annual deaths (Joseph et al., 2006). The American Cancer Society estimates 14,270 deaths from liver cancer in the US in 2004, of which 70%-80% were hepatocellular carcinoma (HCC). Liver cancer is the eighth most frequent cause of cancer mortality in US males and the twelfth in females (Evans, London, & Engstrom, 2005).

In the South-West Asia region, the most widespread cancers in males vary, with lung, urinary, bladder or liver in first place, while for females breast cancer is the most diagnosed NCD. In both genders, non-Hodgkin's lymphomas and leukemia are relatively prevalent, along with lung in males and thyroid in specific female populations (Salim et al., 2010). The Gulf Cooperation Council (GCC) estimates that the overall occurrence of cancer in the Gulf region between 1997 and 2007 was 95,183 cases. Almost half of the cases (47%) were presented with advanced tumors (either regional or distant metastasis), only 22% presented with localized tumor, and 1% was in situ, while 30% of the cases were presented with unknown extent of cancer (Al-Madouj, Eldali & Al-Zahrani, 2011).

### **The Role of Preventable Communicable Diseases in the Incidence of Cancer**

Evidence reveals that there is a link between some of the preventable communicable diseases such as the hepatitis C virus (HCV), hepatitis B virus (HBV), and human papilloma virus (HPV) with cancer disease. According to WHO, Hepatitis B is a potentially life threatening liver infection that can cause chronic liver disease and cause death as a result of liver cancer and cirrhosis (WHO, 2012).

Hepatitis B and C viruses are known to be the major risk factors for hepatocellular carcinoma (HCC) worldwide. Chronic infection with HCV and/or HBV is associated with the majority of HCC cases. Recent estimates of the incidence in the U.S. have attributed 47% of cases to HCV alone, 15% to HBV alone, and 5% to co-infection with both viruses (Wong & Goh, 2006; Henry, Bosch & Bowers, 2002; El-Serag 2007; Parkin, 2011; Ayoola & Gadour, 2004). Furthermore, some epidemiological studies suggest a link between hepatitis C virus (HCV) infection, which infects more than 200 million people worldwide, and some B-cell non-Hodgkin's lymphomas. Treatment with interferon in these patients can lead to regression of the lymphoma (Hermine et al., 2002; Mele et al., 2003; Mazzaro, Tirelli, & Pozzato, 2005). Moreover, evidence reports a significant reduction of HCC as a result of reductions in the rate of chronic HBV infection due to the newborn and infant regular vaccination (Tennant et al., 2004).

Many studies describe the carcinogenic effect of human papillomavirus (HPV) on the head and neck squamous cell cancers (HNSCC) particularly in tonsillar cancer (Mellin et al., 2000; Dayyani et al., 2010; Marur et al., 2010) and on cervical intraepithelial neoplasia (CIN). HPV-16/18 infection is projected to account for 70% of all cervical cancers worldwide, but is slightly higher in more developed (72–77%) than in less developed (65–72%) regions (Clifford, et al., 2006; Altaf, 2006). It was also found that HPV vaccine reduces the risk of HPV related cancer, particularly CIN. Besides, there is a visible cross-protection effect (20%) to the other non-vaccine type of HPV on cervical cancer (Brown et al., 2009). However, vaccination is most effective when applied to young women before they become sexually active (Sait, et al., 2012).

## **The Burden of Cancer in the Kingdom of Saudi Arabia**

According to published cancer statistics, the Saudi Cancer Registry (SCR) reported 12,309 new cancer cases diagnosed in Saudi Arabia in 2007. King Faisal Specialist Hospital and Research Centre (KFSHRC) reported 2,527 new cancer cases during the year 2011 which constitute about 23% of the total cancer cases reported to SCR by all the hospitals in the Kingdom (CTR et al, 2012). However, this figure is expected to increase to 30,000 cases within 15 years.

The age-adjusted occurrences of cancer in Saudi Arabia were in a low rate compared to the remaining Arab countries. It accounts for 60 females and 61 males per 100,000. Although incidences are lower than in the West, breast cancer occupied the first place in Saudi Arabia as other countries. Colorectal cancer (CRC) is the most common cancer in Saudi males and relatively common in females. Patients are diagnosed with CRC at more advanced stage of the disease and at a younger age (30-74 years) compared to Western populations (Al-Jebreen, 2007; Ibrahim et al., 2008). Breast cancer is the most common cancer in women. Both ranked in the first position for all age group (Al-Eid, 2007; El-Attar, 2005; Alam, 2006; Dey, 2010).

Thyroid cancer is regarded as the most frequent endocrine malignancy in Saudi females, with a variable geographic and ethnic occurrence around the country. It comes in the second position in the list for the female group (30-59 years), and the third for the male group (30-44years) (Al-Eid, 2007; Qari, 2004).

Non-Hodgkin's lymphoma and leukemia are more common in the pediatric and young adult group (Al-Eid, 2007), while lung cancer is the most common male cancer after the age of 45 years; whereas, it become more common with advanced age (Al-Eid, 2007; Salim et al., 2010)

Liver cancer is the most common cancer in elderly males. It is ranked as number one after the age of 75 years and it moves down in the list as age decreases (Al-Eid, 2007). The occurrence of genito-urinary cancer (GUC) in Saudi Arabia is comparatively low. It accounts for 9.2% of all cancers in Saudi Arabia. It increases with age; however, males were 5-fold higher than females for the occurrence of genito-urinary cancer. The most common GUC in males is bladder, prostate, kidney, and testicular cancer respectively (Abomelha, 2004; Taha & Kamal, 2005 ; Dandash & Al-Mohaimed, 2007).

The cervical cancer rate is lower than expected in Saudi Arabia. This may refer to underreporting of the cases. Current estimates in Saudi Arabia indicate that every year, 152 women are diagnosed with cervical cancer and 55 die from the disease. It is predicted that as the population ages, there will be a dramatic increase in the incidence of cervical cancer. The estimated number of new cervical cancer cases and deaths in 2025 is 309 and 117, respectively. Although cervical cancer is both preventable and curable, most women in Saudi Arabia present at advanced stages due to the lack of effective screening program (Sait, et al., 2012). Skin cancer is a common malignant neoplasm in Saudi Arabia after the age of 60, where most patients are diagnosed with mostly basal cell carcinoma (BCC) and squamous cell carcinoma (SCC) followed by Kaposi's sarcoma. In contrast to the western countries, melanoma is a rare skin neoplasm in Saudi Arabia (Al-Eid, 2007; Elsayed et al., 2010; Maghrabi, AL-Ghamdi, & Elhakeem, 2004). Oral cancer is relatively rare in Saudi Arabia; however, there are very wide regional disparities in occurrence of oral cancer among the different regions. It is a significant public health problem for the residents of Jizan and the women of Najran (Salim et al., 2010; Brown, Ravichandran & Warnakulasuriya, 2006).

Most of the cancer prevention screening programs are not in place or not effective. (Salim et al, 2009). The preventive measures for breast cancer, which is the most frequent cancer in women, are probably less than expected. There is an imbalance between the knowledge and practice at all levels. Hence, greater

focus on breast cancer education at community-based programs is needed to improve the knowledge, and change patient attitude and behavior rectify the misconceptions towards cancer and its risk factors (Alam, 2006; Dandash & Al-Mohaimed, 2007). Several studies reported that higher survival rates of preventable cancer, such as breast or cervical cancer, could be attainable through: increased awareness of cancer and of the prospective for successful treatment; a high-quality primary care system without economic or cultural barriers to access; and a well-functioning referral system for basic surgical, medical, or radiotherapy treatments (Sait et al., 2012; Shulman et al., 2010).

## **Economic Burden of Cancer**

Analysis of worldwide cancer registries reveals that males in Eastern Europe had the largest cancer burden (3,146 age-adjusted DALYs lost per 100,000 men), while sub-Saharan Africa females had the highest burden (2,749 age-adjusted DALYs lost per 100,000 women) in the world (US health news, 2012). Breast, colorectal, lung and prostate cancer were the notable contributors to total DALYs in most areas, accounting for 18%-50% of total cancer burden. Infection-related cancers such as liver, stomach and cervical cancer accounted for a larger part of overall DALYs in eastern Asia (27% of all cancers) and in sub-Saharan Africa (25% of all cancers) than in other regions.

Saudi Arabia is one of the world's 25 largest economies (24th) and No. 1 in the MENA region (RCJY, 2011). One principal area that the Saudi authorities focus attention on is the provision of healthcare services to its citizens. Hence, the amount of government expenditures allocated for healthcare services is constantly increasing. According to the World Bank, healthcare expenditures in the Saudi Arabia represented 4.3 percent of the GDP in 2010. The share of public health contributed approximately 2.7 to the GDP, while the private sector represented 1.6 percent. Healthcare expenditure in Saudi Arabia exceeds SR 91.20 billion (USD 24.35 billion), which means an increase of 16% during 2011. The expenditure on the health sector will reach, according to NCB Capital's predictions, to SR174 billion for 2017 (Gazette, 2012). GCC countries including Saudi Arabia will face an extraordinary rise in demand for healthcare over the next two decades. It is predicted that the total healthcare spending in the region will reach US\$60 billion by 2025 (Mourshed, Hediger & Lambert, 2007).

Despite the low cancer incidence reports in Saudi Arabia, the country must be ready to face the challenges of predictable increases in the cancer burden which is attributed to growth and aging of its population. Therefore, future cancer rates might demonstrate a significant increase and place large demands on healthcare resources (Ibrahim et al., 2008). The KSA is taking the initiative for addressing this expected increase in cancer incidence by establishing multiple contemporary facilities in many regions where treatment of all levels of care can be given free of charge with the highest international quality of care standards. Many cancer centers have been established in major and smaller cities in KSA, with several more underway. The Kingdom has made a significant investment in training physicians in oncology. Furthermore, there are multiple governmental and nongovernmental service for cancer control such as screening and early-detection programs for certain cancers.

However, cancer in Saudi Arabia is generally diagnosed at an advanced stage, which increases the burden on the health system. The fact is that the shortage of health care resources and constraints make it difficult for most countries to provide comprehensive cancer prevention and control services particularly in the public health sector. Most of the healthcare system funds for cancers are in tertiary care without a balanced investment in prevention, early detection, and palliative care (Hixon & Maskarinec, 2008). The increase in pharmaceuticals spending was estimated to be 13.5% (from SR16.70 billion (USD 4.46

billion) in 2011 to SR18.95 billion (USD 5.06 billion) in 2012). The expenditure on medical equipment was estimated to have increased from SR5.54 billion (USD 1.48 billion) in 2011 to SR6.53 billion (USD 1.74 billion) in 2012 (Howard, 2014).

## **ROLE OF PRIMARY HEALTHCARE IN CANCER PREVENTION AND CONTROL**

The Alma-Ata Declaration of 1978 emerged as a major milestone of the twentieth century in the field of public health and it considered primary healthcare as the key to achieve the goal of Health for All (Anderson et al., 2006). The declaration has defined the role of the primary healthcare functioning as “an essential healthcare based on practical, scientifically sound and socially acceptable methods and technology which has become universally accessible to individuals and families in the community through their full participation and at a cost that the community and the country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination” (MOH, 2002).

The role PHC centers play in health promotion to provide health education is duly recognized. The concept of PHC is to provide the basic health services for all members of the community, and represents the first level of the community’s contact with the health services (Al-Mazrou, 2002). PHC providers believe that people are the protectors of their own health and at the same time they are the resources. Users and decision makers regarding the use of health information take decisions about the activities to be undertaken to ensure fulfillment of health (Almalki, Fitzgerald & Clark, 2012).

Since the Alma-Ata declaration, the Saudi Ministry of Health (MOH) decided to actively pursue the development of the preventive health services by adopting the PHC approach as one of its key health strategies. Consequently, in 1980, a ministerial decree was issued to establish the PHC centers as part of national health services aimed at helping people to live healthy, safe and independent lives (Midhet, Al Mohaimeed & Sharaf, 2010; Samb, Bolhuis & Etienne, 2011).

Evidence shows that the future of PHC depends on the supported ongoing evaluation of all established and implemented programs at PHC centers; the extensive use of health education approaches and resources; the needs, demands, expectations, and acceptance of the Saudi community; the implementation of the ‘health insurance’ policy; qualifying and training of the primary healthcare providers to enable them to understand and cope with current methods of healthcare provision (Al-Mazrou, 2002).

Ensuring early diagnosis and palliative care through a PHC approach is one of the most feasible strategies to increase early detection, improve survival rates, and respond to the urgent needs of patients at advanced stages of the disease (Hixon & Maskarinec 2008). Family physicians play an important role in the health promotion and cancer screening programs, as well as the dynamic actions in following-up cancer patients vigorously after their return from oncology facilities. Eliminating NCD risk factors such as unhealthy lifestyle, enhancing tobacco control, and managing obesity are the most important measures for effective control of most cancers in PHC setting (Ibrahim et al., 2008; Dey, 2010).

The improvement action of PHC on NCDs in general, cancer in particular, focuses on the delivery of better quality primary care services, places greater emphasis on addressing the constraints and barriers in healthcare services to optimize the work and to achieve universal coverage. Good quality primary care services are up-to-date with the core values and principles of primary healthcare, offer great potential for improving NCDs prevention and control, along with meeting the need for integrated management of NCDs, irrespective of the etiology (WHO, 2012).

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Disparities in health and healthcare will limit the continuous improvement of the overall quality of the care provided which will negatively affect the health of the population negatively, and ultimately result unnecessary costs. A “healthcare disparity” refers to differences in access to, quality, or availability of healthcare facilities and services between socioeconomic and/or geographically defined population groups (Mourshed, Hediger, & Lambert, 2007; RCJY, 2011).

In 2012, Aldakheel reported that PHC services were most effective in the prevention program of communicable diseases such as immunization and vaccination. However, PHC services were less effective when dealing with non-communicable diseases and preventive programs. Besides, there was absenteeism of evidence-based practice and disorganization for most of the efforts provided by healthcare services (Aldakheel, 2012).

AL-Ahmadi reviewed 31 published literatures in 2006 on the quality of primary health care services in Saudi Arabia and gave poor scores to the access and effectiveness of chronic disease management programs, health education, and referral systems. Several factors were identified as barriers including: management and organizational factors; poor implementation of evidence-based practice; inadequate professional development; misuse of referrals to secondary care; and different organizational culture (AL-Ahmadi & Roland, 2006). Furthermore, healthcare providers (HCPs) are one of the main human resources in PHC centers. Shortage of qualified HCPs will affect the quantity and the quality of service delivered in PHC centers to prevent, early detection, or control NCDs including cancer. Satisfaction in the work environment is one of the determinants for preservation of skilled physicians and nurses. Multiple studies were conducted in PHC centers in different regions in Saudi Arabia, which reported that the majority of the HCPs were not satisfied with their jobs especially in rural areas. Accordingly, being unsatisfied caused a negative impact either directly or indirectly on clinical and non-clinical staff motivation, productivity, and performance. The major influencing factors for poor productivity were unsuitable working hours/shifts, lack of facilities, inability to match work with family needs, inadequacy of family-leave time, poor staffing, management and supervision practices, lack of professional development opportunities, and inappropriate working environment in terms of the level of security, patient care supplies and equipment (ALJuhani & Kishk, 2006; Almalki, 2012).

Several studies were conducted at the majority of the PHC centers in the Asir region - one of Saudi Arabia’s rural areas, which revealed that there was a shortage of many essential resources for NCDs prevention and management in that region (Al-Sharif & Al-Khalidi et al., 2002). Fewer health professionals have skills required to manage PHC services, using evidence-based medicine (EBM). Al-Baghlie & AI-Aimaie assessed the attitudes of 409 physicians towards the use of EBM approaches in the Dammam area of eastern Saudi Arabia and have reported that only 108 physicians (39.6%) had heard about EBM. However, the overall attitude toward EBM approaches was positive (Al-Baghlie & AI-Aimaie, 2004).

Having an effective referral system is an important strategy for the delivery of high quality, comprehensive, and integrated healthcare services. Various studies have been conducted in different Saudi regions to assess the referral system. The studies show poor quality of the referral system process although some referral processes were of good quality. The following factors contribute to poor patient referral: incomplete forms, unclear handwriting, poor medical skills, carelessness, insufficient space provided for history, lack of communication, and lack of feedback notes to the PHC centers (Baghdadi L & Baghdadi R, 2007).

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Primary care is the backbone of disease prevention. It is an integral part of the National Healthcare System, of which it is the core, as well as of the global, social, and economic development of the community. It represents the first contact of individuals, families and the community with the National Healthcare System, bringing medical care as close as possible to the place where people live and work, and it is the first link in the entire process of medical attention.

Unger et al, have evaluated the impact of each disease control program on local healthcare facilities and have identified how the integration of these programs affects the quality of healthcare delivery and its utilization of communities. They found that in order to take advantage of appropriate integration and prevent disease control programs from damaging general care delivery, disease control activities should generally be integrated with health centers which offer patient-centered care, non-profit health facilities, and avoid conflict with healthcare delivery. The authors recommend the development and implementation of best practices used for governmental and international aid organizations (Unger, Paepe & Green, 2003).

Unfortunately, screening programs in Saudi Arabia are limited but on the rise. Although, breast cancer is the most frequent cancer in diagnosed in Saudi women, the preventive measures for such problem are probably less than expected. Even if the knowledge on breast cancer preventive measures including screening is improved, there is a mismatch between the knowledge and practice of self-breast examination (SBE) among women. Hence, greater focused breast cancer education that is community-based program is needed to improve the knowledge and change the patient's attitude and behavior and the mistaken belief towards cancer and its risk factors (Alam, 2006; Dandash & Al-Mohaimed, 2007)

Higher survival rates of breast cancer can be attained through increased awareness of breast cancer and of the prospective for successful treatment, a high-quality primary care system without economic or cultural barriers to access, and a well-functioning referral system for basic surgical and hormonal treatment are mainly needed (Farmer et al., 2010). Pap smear screening has helped to reduce cervical cancer occurrence and mortality rates by 70% in developed countries (Sait et al., 2012).

The cancer burden in Saudi Arabia is likely to increase more as the population ages. The current health system capacity needs significant support to meet the growing cancer burden. Due to the lack of studies in Saudi Arabia regarding the role of PHC in prevention, early detection and control of cancers, there is an urgent need to assess the current capacity of PHC centers with respect to cancer control and prevention to know how Saudi Arabia is progressing and to open the doors for other researchers and policy makers to step forward to develop and empower the PHC centers to accommodate the huge number of cases.

## **FUTURE DIRECTIONS**

The World Health Organization began promoting PHC since 1978, when PHC was adopted during the Alma-Ata Conference as a central strategy to achieve the "Health for All" goal. Recently, a process to renew the PHC initiative was initiated by Pan American Health Organization/World Health Organization (PAHO/WHO) with the aim to strengthen countries' potential to implement a coordinated, effective and sustainable strategy to tackle the existing health problems, meet new health challenges, and improve health equity (PAHO & WHO, 2012).

The emergence of NCDs as a major health problem may need fundamental reorientation in the way PHC is delivered in the Saudi healthcare system. Moreover, the expansion and improvement of the preventive services of PHC requires providing better quality care where PHCs must become part of an integral process to respond to cancer control and prevention.



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The national and regional goals of prevention, early detection, and control of cancer should be in line with the international principles shared with Health 2020 that will guide all actions in the cancer prevention, early detection strategic plan, from priority-setting through implementation to evaluation (Adeyi, Smith & Robles, 2007). Early detection of cancer is the key to survival; therefore, cancer should be detected during periodic health examinations, either through screening procedures or through the observation of signs and symptoms, which prompt a routine visit to a primary care physician.

The ongoing assessment of primary healthcare service is one of the vital issues for improved health promotion, cancer prevention, early detection and integrated care. It should be done to assure: equity, improvement and the strengthening and development of primary healthcare services; empowerment of all PHC centers' activities to enhance, but not replace community action, and to promote health literacy; integration of PHC centers with non-health sector to provide a health-supporting environment that promotes coping with disability, social protection and appropriate and accessible social and healthcare services; evaluate and improve the integrated programs that attain a multiple intervention strategy for all NCDs rather than individual interventions so as to assure cost effectiveness.

Vedel et. al, has summarized the barriers of cancer screening related to the physician, the patient and the healthcare system where the primary care physicians do not believe in the usefulness of cancer screening and the patients feel embarrassment, discomfort or fear of the test (Vedel et al, 2011).

To assess whether or not the PHC organization is ready for such activity, it is necessary to define and measure its potentials regarding cancer prevention, early detection, and control. This is in addition to conducting an assessment of its ability of care continuity with the existence of the conceptual and practical difficulties that they face. Information obtained from this assessment will provide a better understanding of the main barriers facing the process of implementing cancer prevention, early detection and control strategies in Saudi Arabia's primary healthcare facilities.

Data obtained from the assessment of the primary healthcare facility (Facility-based information) will inform policy makers and stakeholders with the actual information on the reality of the level of service delivery (input, process, costs, output and quality). Such information is needed for monitoring, evaluation and improving the quality and performance at the facility-level. Moreover, the performance and quality factors can affect patients' health-seeking behavior (e.g., utilization of services) and can also mediate the impact of service utilization on population-level outcome measures.

## **CONCLUSION**

Developing nations such as Saudi Arabia require qualified and well trained manpower in addition to effective operating systems, patient education and effective disease prevention. This also needs well oriented community primary health care, evidence-based medicine, patient access to secondary and tertiary care, professional practice and on-going professional education, in addition to proper training, better services utilization review and safety inspections. All this will incorporate into prevention, early detection and control of health problems under the auspices of PHCs.

A disproportionate focus on specialist, tertiary care encourages policy-makers, funders and service users alike to by-pass primary care provision in favor of hospital-based treatment. Fragmentation resulting from duplication of programs and projects is shaping health systems in a way that weakens service delivery models that are efficient and equitable. The growing commercialization of healthcare in unregulated health systems makes integration of services difficult and closes the door of healthcare for the

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poor. Government policy and resources are important pillars working to ensure quality of care across all PHC sectors and to integrate the fragmented provision of care for NCDs through strong health sector planning and appropriate regulation. However, effective delivery of good quality care in primary level settings depends on a strong health workforce that is appropriately educated and trained and equipped with a good supervision and dependable structures for referral to secondary and specialist tertiary care as needed. However, primary care services will not be able to meet the needs of people with NCDs, especially cancers, without reliable and affordable access to essential medicines, and other technologies of good quality, over an extended period of time (Farmer, 2010); medicines are an essential component of treatment of many cancers and/or palliative treatment (Santosa & R.N., 2008).

It is of a paramount importance to establish resources, policies and procedures on developing universal good quality, patient centered primary healthcare with referral to secondary and tertiary levels of care whenever needed. It is essential to establish future strategic plans for the function of primary healthcare for prevention, early detection and control of cancer. The role of primary health care in screening high risk patient groups is very crucial to the process of prevention of the disease and early detection of cancer cases. Healthcare policy makers should be focusing on investing in primary healthcare services as a first point of contact with the public for both awareness and early detection of cancer. We need to emphasize and support the role of primary healthcare in reducing the incidence of, and mortality from, cancer by early diagnosis through developing and implementing cancer screening programs and through making these programs accessible for the public and increasing the public awareness about their existence and importance.

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