CHALLENGES OF CANCER SCREENING PROGRAM

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Background

Cancer is a global public health problem. It is the second leading cause of death worldwide. It is often regarded as a disease cause of the developed world, but with improved living standards, incidence in low and middle income countries is on the rise. By the year 2030, seven out of every ten new cases will occur in the developing world.(1)

Survival outcomes vary dramatically throughout the world and variation in access to quality cancer care is a major cause of these discrepancies.(2) Over 40% of more than 7 million cancer deaths can be prevented. Furthermore, cancer is curable if detected early and treated adequately. This applies in particular to breast cancer, colon, prostate, and cervical cancer as the technology for screening, diagnosis and treating is mature.

A recent publication about the future burden of breast cancer in Saudi Arabia which anticipated the incidence and mortality of cases will increase by about 350% and 160% respectively over a ten-year period.(3)

Saudi Society for Cancer recognized the importance of prevention and early detection. In an effort to combat cancer through early detection, Abdulatif Charitable Screening Center was established as the first dedicated Cancer Screening Center in the Kingdom.

The objective of this manuscript is to address the challenges/barriers which were encountered. Data related, center related, personal related challenges were identified; different interventions were implemented for each barrier. Furthermore, we will review the planning strategies for such project. This information may be of benefit to health care providers, health care organizations and health care systems personnel when considering establishing public cancer screening programs.

Readers are advised to review the World Health Organization (WHO) guide for effective programs which includes six modules that provide practical advice for program manager and policy makers on how to advocate, plan and implement effective cancer control programs, prevention and early detection.

Methods

The Abdulatiff Charitable Screening Center is the first center in Saudi Arabia to conduct early diagnosis of breast cancer initially but then to cover screening for cervical, colon and prostate cancers. The Center inauguration has started screening in October 2007.

The center is governed by Board of Directors which comprised of experts and leaders in the field of cancer diagnosis and treatment. The Center is empowered with a stand alone management and policy and procedure to ensure accurate screening and referral to tertiary care centers.

Identifying Barriers

The initial contact helped to identify centers barriers and concerns which can be summarized as follows:

1. Concept Approval

The involvement of charity organization in screening is of great concern since screening is a

project which needs careful planning, budgeting, and control. The delay in establishing national screening program and cloudy strategy forced the Saudi Cancer Society to establish the first screening center. We realized that no public awareness program will be successful unless there are centers ready to screen candidates.

2. Financial barriers
Establishing screening center requires substantial financial support not only for the initial start up cost but for the running expenses of the center on ongoing basis especially if the center does not charge the patients. A decision was made to make screening free of charge in order to remove "out of pocket" expenses as barrier for participation.
This center was a donation from a businessman who donated million Saudi Riyals which include the building and operation of first year. The plans took place to establish 8 million USD (30 million SR) endowment for society in Riyadh to secure permanent revenue to finance its activities.

3. Personnel
Assuring adequate staffing to run the center was major challenge which delayed the opening of the center for considerable time. There was a need for a family physician, a health educator, receptionist, mammography technician, and radiologist to read mammogram.

4. Data Collection/Confidentiality:
In order to identify possible risk factor and perform quality control and to develop a recall system, predetermined data should be collected and entered into unified database. This was an important barrier identified few months after operation and when number of cases increase and in order to overcome this problem, new software will be applied.

5. Recall System
To overcome such problem, a form designed which has all personal information including ID and phone problem. Patient with abnormal mammogram findings where called back for further testing and work-up.

6. Referral Process
The center is designed to perform screening only. Therefore, collaboration with tertiary care centers was mandatory to ensure confirmation of diagnosis and further therapy. So, a proposal was submitted to all tertiary hospitals. However, for the initial 8 months, only two centers cooperate to have the suspicious cases for further investigation. So, lack of health facilities was an issue and we tried to overcome with cooperation with three tertiary care centers though, not all these hospitals have all needed resources in terms of performing investigation and access to cancer specialists.

7. Barriers to Participation
The center stared in August 2007, the flow of cases was very slow and that was attributed to cultural/social barriers that by diagnosis of breast cancer, women will lose her role in live.4 Lack of knowledge among female which has been reported by many studies done in different regions of Saudi Arabia and concluded lack of knowledge towards risk factors, breast cancer screening modality5, also diversity in health beliefs and behaviors which exist in religious subgroups.6 So, health communication should be modified to suit women in different groups to increase participation in screening.

Other screening barriers include cultural knowledge and the use of traditional treatment,7 related fear, low self efficacy, fatalism, misinformation, and ineffective health communication.8 Through this center, more than 2500 ladies were screened; thus, far many participants barriers were identified. As listed above, the majority are related to attitude and lack of knowledge. To overcome this barrier, a well-organized public health program was conducted throughout the year for ladies at work, schools, colleges/universities and public places such as Prince Salman

Social Center, shopping mall, in addition to the use of media through a common popular TV program. This step had a good impact on increasing level of awareness and increase participation of women. This was noticed when the medial covered the opening of the center by USA former First Lady Laura Bush. The numbers of screened ladies increased 10 times over that before the opening ceremony, which reflects the importance and the vital role that media play in increasing public awareness. There was another important barrier that was reported through several studies which is the primary health care physician role in cancer prevention demonstrated by low adherence to prevention and screening recommendations as highlighted in several studies includes:9

- Physician's beliefs that prevention and not early detection of cancer is not part of their jobs.
- Physicians / patients bond (lack of trust).
- Lack of services and access to health care for prevention and screening.
- Lack of time.
- Lack of organized system.

To overcome such issue, the Ministry of Health formed a committee for Breast Cancer Prevention and Early Detection to implement a program. In addition a National Society for Cancer Prevention was formed and it included many of this center board members. Furthermore, Cancer Prevention and Early Detection Symposia were held targeting primary health care physicians.

Important barriers include screening-accompanied anxiety in waiting for further studies or confirmation of findings. To eliminate and shorten the period of time from screening until physician visit, we opened a special clinic for those referred from the center, and a coordinator assigned to open a file and facilitate the referral procedure in order to follow their referral to the hospital within a week from their referral to the tertiary center.

In order to make sure that patients with suspicious lesions are properly managed, a flow system was established as illustrated in figures.

Table 1: Targeted Barriers for the Screening Program and Interventions

Targeted Barriers	Intervention
Financial	- Initial donation - Endowment
Confidentiality	- All women staff, closed space - ID for identification - Secure Database Site
Staff shortage	- 2 radiologists to read mammography for back-up
Difficulty in retrieving data and data management	- Establishing database with new software
Lack of interest/misinformation from patient and physician	- Public awareness program implemented throughout the year - Physician education symposia and activities - High-profile media events
Patient Care	- Recall system - Work-up and management/referral process - Follow-up

Conclusions

In spite of having many barriers to public cancer screening, though we were able to screen more than 2500 women within 18 months period, many of these barriers were overcome by specific intervention. Good strategic planning with attention to the above challenges and following WHO cancer control program for implementing such center prior to establishing another center is advisable.

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