

Review Article

Burden of breast cancer in Bangladesh-current and future and financing treatment with link to willingness to pay

Tasdidaa Shamsi*

Independent Public Health Researcher, Dhaka, Bangladesh

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*Correspondence:

Tasdidaa Shamsi,

E-mail: shamsitasdidaa@gmail.com

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ABSTRACT

Breast cancer is the most common cancer type among females worldwide affecting 1 in 8 women. As of 2015, breast cancer is still a leading cancer of women in Bangladesh. It has become a hidden burden which accounts for 69% death of women within the country. The rate grows up day to day due to unawareness of the people, lack of confidence about medical treatment, improper screening, maltreatment, and lack of motivation to go for institutional treatment and management. The treatment options for breast cancer are relatively very expensive. People may be willing to sacrifice overall health to channel resources towards high priority disease areas, such as cancer to improve overall life. It is highly appropriate now to link treatment fall out and finances to the patient population. This short communication adopts a descriptive approach. First, it looks at the prevalence of breast cancer in Bangladesh, how breast cancer can be managed, how treatment can be financed and willingness to pay by individuals. This article finds that the screening can be optimized as the treatment options for breast cancer are relatively very expensive in a low resourced country such as Bangladesh. Data should be disseminated among the concerned stakeholders including the women susceptible to breast cancer, the patients, the care-givers, doctors, other health-care workers and policy-makers for better management. Improving the cancer scenario overnight is not an easy task but policy makers may become interested and push this agenda forward, if the huge health impact and economic loss caused by cancer become evident to them.

Keywords: Breast cancer, Healthcare financing, Willingness to pay

INTRODUCTION

The highest occurring type of cancer among women in the world is breast cancer. One of 8 females are a patient of breast cancer once in life.¹

Up till 2015, breast cancer has been the number one cancer of Bangladeshi women. This has been so heavy on the healthcare systems that it contributes to the deaths of 69% women in Bangladesh. The 22.5 out of every 100000 women in Bangladesh are affected by breast cancer. The highest affected are in the age range of 15-44 years when compared to having other cancers. It seems

the rate increases as people are not educated on the issue, they cannot trust the medical facilities available, not enough screening is conducted, and improper treatment and also other issues like no interest to go for clinic or hospital treatment. In 2018, according to IARC, there were 12,764 new breast cancer cases in Bangladesh.

Whatever treatment is available in Bangladesh, is quite high cost for the Bangladeshi population. The country also had low resources. There seems to be not enough health education programs for breast cancer, a reason the people are not aware. This is truer for rural areas of Bangladesh. When the cancer is diagnosed early, the treatment is planned, the full management along with

both patient and family counseling is present, the breast cancer patients may have a better life. When the cancer is diagnosed at the right time, the disease seems to be curable.² According to the Bangladesh the maternal mortality survey (2010), breast cancer is accountable for twenty one percentage of death of women in the age group of 15-44.

A study in 2012 stated that there is a yearly new breast cancer case burden of 30,000 women through the process of age standardized incidence. The breast cancer burden is projected to grow in South Asia due to a increased life expectancy, population growth, and adoption of “Western” lifestyle where high calorie diet, less physical exercise, lowered parity, delayed bearing of children, and reducing breast feeding is becoming more and more prevalent. The higher-income countries are becoming more and more successful in making females suffering from breast cancer better with better technologies and management. Countries with lower income and burden such as Bangladesh are beginning to understand the prevalence and effect of breast cancer.³

When looked in terms of the world, referring to a study conducted in 2019, diagnosis of breast cancer in Bangladeshi females is one decade earlier on average and the rates that are reported of triple negative breast cancer are as high as 27%. The effect of predictors-environment, genes, and social factors that cause the differences are still not known fully. This study looked at if country of residence had an effect on type of breast tumor among women of Bangladeshi ethnic origin in UK.⁴

POSITIONING CANCER AS PUBLIC HEALTH PRIORITY IN BANGLADESH

There has been a rise of breast cancer in all age mortality rates/100000 from 3.0 to 5.9 from 1990 to 2010 which is expected to be higher currently in 2020 in Bangladesh. As a result, this data should be disseminated among the concerned stakeholders including the women susceptible to breast cancer, the patients, the care-givers, doctors, other health-care workers and policy-makers.

PRIMARY PREVENTION OF CANCER

When women marry at a later age, have nulliparity (never giving birth), and have menopause at a later age, all has been linked to breast cancer. Breast cancer cannot be prevented to any large extent. The best way to deal with the disease is earliest detection. This also seems to increase the chances of survival in breast cancer.⁵

Bangladesh has screening tests available for breast cancer (Mammography). Focus should be given to screen those at highest risk of the disease, women aged 40 years or more (but, for mammography programs the current situation is for those aged 50-69 years).⁵

EARLY DIAGNOSIS, SCREENING AND BREAST CANCER MANAGEMENT

Mammography is not used optimally as a screening tool in Bangladesh as yet. Health education and behavior change programs can be introduced along with fine-needle aspiration cytology, pathology services and surgical interventions. Clinical breast examination can be made feasible once-a-year and directed for women above the age of 40 years. This can be conducted out by doctors or health workers who are trained at all levels, both rural and urban. Self-examination of breast (Breast self-examination) can be another useful method for early diagnosis. Each of the methods can be spread widely as a strategy.⁶

PLANNING CANCER CONTROL PROGRAMMES

The cancer control continuum is a well-designed, systematic, equitable, worthy, and harmonic approach which is based on evidence that focuses to decrease incidence and impact of cancer through translating data into flow. The prevailing data concerning the causes of cancer and concerning interventions to forestall and manage cancer is intensive. Human exposure to risk factors includes a large variety of activity, economic, social, cultural and environmental factors. Efforts to scale back the incidence of breast cancer cases need a comprehensive approach in Bangladeshi context, like that delineated within the Ottawa charter for health promotion (WHO), 1986.⁵

SOCIAL AND ECONOMIC INEQUALITIES IN BREAST CANCER IN BANGLADESH

Awareness of breast cancer has been associated with being aged 40-59, being overweight and obese, while indirectly linked with rural dwelling, primary education, having no education and parity. Among the 750 women who were aware of clinical breast examination (CBE) or mammography, they did not go for screening due to absence of symptoms (92%) and they also did not know screening was required (40%). Eight percentage of women reported CBE. Uneducated women were less likely to have undergone CBE.⁶

Thus, women with lower education, lower exposure etc. are more likely to face social and economic inequalities in dealing with breast cancer.

FINANCING CANCER CONTROL: CHALLENGES AND STRATEGIES

Almost half of the working population in Bangladesh works in the agricultural sector. Among these many works only a few hours a week at low wages. About 60% of females are uneducated, and 27% suffer from low nutrition.

Tertiary healthcare facilities are required for cancer treatment that can rarely be received at the division level or lower level due to lack of trained health care providers, treatment facilities, and patient resources. Resources are significantly lacking in the case of radiation therapy.

Individuals seeking treatment must travel to the capital city, Dhaka, or leave the country if they are financially stable. This is a direct out of pocket expenditure for the patients. It is hard for most rural-dwellers to afford the services only available in urban areas. Thus, the option of only accessing local services is available. Rural people seek alternative treatments in the form of ayurvedic, homeopathic, spiritual, and self-proclaimed healers.

Bangladesh has no national health insurance. Very minimal fees are charged at government facilities for admission into healthcare, but the majority of medical expenses (diagnostics, surgery, medications, etc.) are paid for out-of-pocket. Different studies have indicated that patients are often asked to pay higher than what the standard fees for services are so they receive priority treatment (example getting a bed, or to reach the doctor earlier), getting hold of less available medicines, or simply nurses' care.

The facilities are much better in private hospitals when compared to public hospitals. There are more crowds, unhygienic and lower resources in public hospitals. Patients seem to compete for attention of doctors and nurses as well as sharing facilities which is allocated for an individual. Private hospitals are expensive for most Bangladeshis. Bangladesh also has a lower amount of highly trained specialized oncologists.²

Nationwide insurance for Bangladeshis by the government is intended to start in 2030. There is still no welfare or charity program for cancer patients and their families in Bangladesh. Out of pocket expenditure is not monitored. Prices of drugs and medical tests are not controlled. This leads to many families to selling their assets, land etc. to continue treatment for the patient.

A cross-sectional web-based survey was conducted among Canadian women to find WTP for breast cancer susceptibility testing (BCST) in 2018. The study reported that most of sampled women were interested in BCST (90%). More than half of the respondents are willing-to-pay for such a test (57%).⁷

Health economists conducted a study which reported that people may be interested to overlook full health to move assets towards high priority disease areas, like cancer to improve overall life. This paper examined whether society is willing to pay more for cancer prevention and treatment than for other types of health care. The policy context in UK, which can be duplicated for Bangladesh where special assessment criteria and funding arrangements are currently not in place for certain cancer drugs.⁸

Medical expenses are on an increasing trend due to "medical innovation". According to a study by Iwatani et al the Japanese government introduced health technology assessment (HTA) in April 2016. HTA is the systematic evaluation process of scientific value, economic, social and ethical issues related to medical technology with fair and robust methods while ensuring transparency. Firstly, the researchers established the evaluation standard for the interpretation of the results of cost-effectiveness analysis (CEA) of clinical trials for a standard treatment for breast cancer. Next, they re-evaluated the HTA's decision making based on the viewpoint of general Japanese population from the perspective of cancer patients. This study can be replicated in terms of Bangladesh as the research can contribute to the creation of a healthcare system that is meaningful to patients, clinicians, industries, and healthcare policymakers. It can be seen how Bangladeshi breast cancer patients who receive treatment consider the financial value (willingness to pay; WTP) for their life and health.⁹

EFFECTIVE IMPLEMENTATION: IMPROVING CAPACITY AND CAPABILITY

There is shortage of health facilities for breast cancer treatment in Bangladesh. Currently, only 18 health facilities provide some sort of treatment for cancer patients, but a total of 160 is required.⁷ Up till 2013, there are approximately 150 qualified clinical oncologists and 16 pediatric oncologists working in the different parts of Bangladesh. According to data, regular cancer treatment is available in 19 hospitals and 465 hospital beds are attached as indoor or day care facilities for chemotherapy in the oncology/radiotherapy departments. There were about 15 linear accelerators, 12 Co-60 tele therapy and 12 brachytherapy units available at the time.

Bangladesh has a unique national cancer control strategy and plan of action 2009-2015 which has been developed in team-work with world health organization. The main motto is to form and implement proper care for cancer with help of a comprehensive cancer control program. Preventive measures taken to reduce the incidence of breast cancer should include change of dietary habit and reduced food adulteration with better monitoring from responsible authorities, ensuring reproductive hygiene, increased physical activity with provision of area for exercise, and reduced occupational hazard with better cooperation from employer and inclusion of induction. Behavior changes communication programs and campaigns by media on by organization of the general people, community champions of the society, and male and female scout are continuous. There is continuous training of general physicians on cancer warning signs. Early cancer detection centers are being set up at each medical college at district level. Different cancer programs have taken place for early detection of breast, cervical and oral cancer by Bangladesh Government and few NGOs. Pilot program for cervical cancer vaccination has recently been completed in Bangladesh. It is difficult

to improvise the cancer scenario overnight but policy makers seem to become interested and push this thought process forward. Otherwise, Bangladesh has accepted lowering of cancer morbidity and mortality targets set by united nations and WHO as a part of global non-communicable disease prevention agreement.¹⁰

As literature review shows that breast cancer is a leading cause of suffering among women of reproductive age, it is highly appropriate now to link treatment fall out and finances to the patient population.

CONCLUSION

This article tries to portray the breast cancer burden of Bangladesh and how the treatment can be financed in different ways along with willingness to pay by individuals through a descriptive study. It finds that the screening can be optimized as the treatment options for breast cancer are relatively very expensive in a low resourced country such as Bangladesh. Data should be disseminated among the concerned stakeholders including the women susceptible to breast cancer, the patients, the care-givers, doctors, other health-care workers and policy-makers for better management. There is no system of national health insurance in Bangladesh. Government facilities charge nominal fees for admission, but the majority of medical expenses (diagnostics, surgery, medications, etc.) are paid for out-of-pocket. It should be seen how Bangladeshi breast cancer patients who receive treatment consider the financial value (willingness to pay; WTP) for their life and health. Policy-makers can be influenced with this baseline study to make breast cancer treatment free by putting it under a fully covered insurance just to deal with breast cancer. People from all strata of the society can obtain knowledge from this study and stand beside breast cancer suffers and survivors.

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