



Cancer

Breast cancer: prevention and control

Breast cancer control

WHO promotes breast cancer control within the context of comprehensive national cancer control programmes that are integrated to noncommunicable diseases and other related problems.

Comprehensive cancer control involves prevention, early detection, diagnosis and treatment, rehabilitation and palliative care.

Raising general public awareness on the breast cancer problem and the mechanisms to control as well as advocating for appropriate policies and programmes are key strategies of population-based breast cancer control. Many low- and middle-income countries face now a double burden of breast and cervical cancer which represent top cancer killers in women over 30 years old. These countries need to implement combined strategies that address both public health problems in an effective and efficient way.

Prevention

Control of specific modifiable breast cancer risk factors as well as effective integrated prevention of non-communicable diseases which promotes healthy diet, physical activity and control of alcohol intake, overweight and obesity, could eventually have an impact in reducing the incidence of breast cancer in the long term.

Early detection

Although some risk reduction might be achieved with prevention, these strategies cannot eliminate the majority of breast cancers that develop in low- and middle-income countries. Therefore, early detection in order to improve breast cancer outcome and survival remains the cornerstone of breast cancer control (Anderson et al., 2008).

There are two early detection methods:

- early diagnosis or awareness of early signs and symptoms in symptomatic populations in order to facilitate diagnosis and early treatment, and
- screening that is the systematic application of a screening test in a presumably asymptomatic population. It aims to identify individuals with an abnormality suggestive of cancer.

A screening programme is a far more complex undertaking than an early diagnosis programme. (WHO, 2007).

Irrespective of the early detection method used, central to the success of population based early detection are careful planning and a well organized and sustainable programme that targets the right population group and ensures coordination, continuity and quality of actions across the whole continuum of care. Targeting the wrong age group, such as, younger women with low risk of breast cancer, could cause a lower number of breast cancers found per woman screened and therefore reduce its cost-effectiveness. In addition, targeting younger women would lead to more evaluation of benign tumours, which causes unnecessary overload of health care facilities due to the use of additional diagnostic resources (Yip et al., 2008).

Early diagnosis

Early diagnosis remains an important early detection strategy, particularly in low- and middle-income countries where the disease is diagnosed in late stages and resources are very limited. There is some evidence that this strategy can produce "down staging" (increasing in proportion of breast cancers detected at an early stage) of the disease to stages that are more amenable to curative treatment (Yip et al., 2008).

Mammography screening

Mammography screening is the only screening method that has proven to be effective. Although there is evidence that organized population-based mammography screening programmes can reduce breast cancer mortality by around 20% in the screened group versus the unscreened group across all age groups, in general there appears to be a narrow balance of benefits compared with harms, particularly in younger and older women. There is uncertainty about the magnitude of the harms – particularly overdiagnosis and overtreatment. Mammography screening is very complex and resource intensive and no research of its effectiveness has been conducted in low resource settings.

Breast self examination (BSE)

There is no evidence on the effect of screening through breast self-examination (BSE). However, the practice of BSE has been seen to empower women, taking responsibility for their own health. Therefore, BSE is recommended for raising awareness among women at risk rather than as a screening method.

Clinical Breast Examination (CBE)

Research is underway to evaluate CBE as a low-cost approach to breast cancer screening that can work in less affluent countries. Promising preliminary results show that the age-standardized incidence rate for advanced-stage breast cancer is lower in the screened group compared to the unscreened group (Sankaranarayanan, 2011).



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Breast cancer burden

Breast cancer is the most common cancer in women both in the developed and less developed world. It is estimated that worldwide over 508 000 women died in 2011 due to breast cancer (Global Health Estimates, WHO 2013). Although breast cancer is thought to be a disease of the developed world, almost 50% of breast cancer cases and 58% of deaths occur in less developed countries (GLOBOCAN 2008).

Incidence rates vary greatly worldwide from 19.3 per 100,000 women in Eastern Africa to 89.7 per 100,000 women in Western Europe. In most of the developing regions the incidence rates are below 40 per 100,000 (GLOBOCAN 2008). The lowest incidence rates are found in most African countries but here breast cancer incidence rates are also increasing.

Breast cancer survival rates vary greatly worldwide, ranging from 80% or over in North America, Sweden and Japan to around 60% in middle-income countries and below 40% in low-income countries (Coleman et al., 2008). The low survival rates in less developed countries can be explained mainly by the lack of early detection programmes, resulting in a high proportion of women presenting with late-stage disease, as well as by the lack of adequate diagnosis and treatment facilities.

Key message

Breast cancer is the top cancer in women worldwide and is increasing particularly in developing countries where the majority of cases are diagnosed in late stages.