CONSENSUS STATEMENTS

Overview of Breast Health Care Guidelines for Countries with Limited Resources

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Abstract: Among women around the globe, breast cancer is both the most common cancer and the leading cause of cancer-related death. Women in economically disadvantaged countries have a lower incidence of breast cancer, but poorer survival rates for the disease relative to women in affluent countries. Evidence suggests that breast cancer mortality can be reduced if resources are applied to the problem in a systematic way. The purpose of the Global Summit Consensus Conference was to begin a process to develop guidelines for improving breast health care in countries with limited resources—those with either low- or medium-level resources based on World Health Organization (WHO) criteria. Breast cancer experts and patient advocates representing 17 countries and 9 world regions participated in the conference. They reviewed the existing breast health guidelines, which generally assume unlimited resources—those with either low- or medium-level resources based on WHO criteria. Breast cancer experts and patient advocates representing 17 countries and 9 world regions participated in the conference. They reviewed the existing breast health guidelines, which generally assume unlimited resources. Individual panels then discussed and debated how limited resources can best be applied to improve three areas of breast health care—early detection, diagnosis, and treatment—and how to integrate these areas in building a breast health care program. The panelists unanimously agreed on the guiding principle that all women have the right to access to health care. They also agreed that collecting data on breast cancer is imperative for deciding how best to apply resources and for measuring progress. The panelists acknowledged the considerable challenges in implementing breast health care programs when resources are limited, as well as the need to build a program that is specific to each country’s unique situation. The panelists noted that the development of centralized, specialized cancer centers may be a cost-effective way to deliver breast cancer care to some women when it is not possible to deliver such care to women nationwide. In countries with limited resources, at least half of the women have advanced or metastatic breast cancer at the time of diagnosis. Because advanced breast cancer has the poorest survival rate and is the most resource intensive to treat, measures to reduce the stage at diagnosis are likely to have the greatest overall benefit in terms of both survival and costs. Women should have access to diagnosis and treatment if efforts are undertaken to improve early detection of breast cancer. The panels’ findings outline specific steps for prioritizing the use of limited resources to decrease the impact of breast cancer around the globe.

Key Words: awareness, developing countries, diagnosis, early detection, education, public health, resource allocation, screening, treatment
BACKGROUND

Progress in cancer care is made in a stepwise fashion. Scientific studies provide evidence of efficacy for differing approaches to early detection, diagnosis, and treatment. To realize the benefit of this evidence, incremental changes in cancer care need to be applied uniformly within a population. The critical purpose of cancer care guidelines in general, and breast cancer care guidelines in particular, is to provide a framework for standardizing care. Major efforts in the United States, Europe, and other parts of the globe have been made to write evidence-based cancer guidelines. Groups such as the National Comprehensive Cancer Network (NCCN) (1) have prioritized cancer care guideline development, focusing on breast cancer, where consistent strides in cancer treatment have been made.

The need for breast care guidelines is especially compelling in countries with limited resources, in which cancer mortality is high while access to cancer care is limited. Around the globe, breast cancer is the most common cancer among women. Internationally breast cancer is the leading cause of cancer-related deaths among women (2). More cases are diagnosed per capita in affluent populations, but more women with breast cancer die of their disease in economically disadvantaged countries (Fig. 1) (3).

Statistics from economically developed countries show that it is possible to favorably impact breast cancer mortality. In the United States, the rate of breast cancer mortality was essentially constant from the 1930s through the 1980s. Then in the early 1980s, widespread mammographic screening was initiated. At the same time, prospective trials in the United States and Europe were showing improved breast cancer outcomes, especially with the use of systemic chemotherapy and hormonal therapy. It subsequently became clear that, for the first time, breast cancer mortality in the United States was decreasing by 1–2% per year beginning in the early 1990s (4). These findings are promising evidence that improvement in breast cancer survival is achievable when fully developed health care resources are applied to the task.

Existing guidelines indicate important directions for breast health care, but they do not show us where to start when resources are limited. Until now, breast health care guidelines have been written primarily by and for countries with high-level resources. Previously developed guidelines assume that resources are fully available and then define the evidence-based practices most likely to improve outcomes. The unfortunate but obvious limitation of such guidelines is that they do not apply to countries in which resources are constrained or unavailable, which collectively represent the majority of the world.

The World Health Organization (WHO) has initiated international cancer care efforts by creating guidelines for national cancer control programs (5). Within this context, WHO stratifies countries into those with low-, medium-, and high-level resources, defining three scenarios based on national economic status and health care organization (Appendix A) (5). A key next step is to define breast health care guidelines for countries with low- or medium-level resources, which for the purposes of this article we refer to collectively as “countries with limited resources.”

The purpose of the 2002 Global Summit Consensus Conference was to use the process defined by WHO to begin developing guidelines for achieving “priority actions” in breast cancer care (Appendix B) (5). Our monograph summarizes the findings and conclusions of three panels composed of internationally recognized experts in this field. Although this publication is the endpoint of the first Global Summit conference, it is a starting point for specific dialogue and scientific analysis as we move forward in reducing the tragic impact of breast cancer worldwide.

METHODS

The Conference

The Global Summit Consensus Conference, held in Seattle, Washington, on October 2–4, 2002, brought together breast cancer experts and patient advocates to develop consensus recommendations for the early detection, diagnosis, and treatment of breast cancer in countries.
with limited resources. The participants, representing 17 countries and 9 world regions, followed the process charged by WHO to address breast cancer care in countries with low- or medium-level resources (5). Reviewing current evidence and existing breast care guidelines, panelists debated approaches for breast health care and specifically considered how this care may best be provided under the constraints of limited resources.

Each day of the conference was devoted to one of three topics: early detection (including screening), diagnosis, and treatment. During the morning sessions of each day, participants gave presentations on existing breast care guidelines, state-of-the-art breast cancer care, and the issues of providing breast health and breast cancer care to women in countries with limited resources. During the afternoon sessions, each Global Summit panel identified, discussed, and debated core issues for providing breast cancer detection, diagnosis, or treatment. Based on these discussions, the panel defined recommendations on the application of breast cancer care in countries with limited resources. Specifically each of the three panels was asked to address the question of where efforts can be applied in a country with limited resources to make the most significant advances. To document the major points covered during the discussion, each afternoon session was tape-recorded and transcribed and captured in notes by a medical writer. Both the transcripts and notes were made available to the panelists for the subsequent preparation of the consensus statements.

Parameters and Boundaries for Discussion

Focused choices were made to define and delineate the boundaries of each discussion. All three panels used the same definitions for countries with low-, medium-, and high-level resources as originally defined by WHO (Appendix A) (5). The Global Summit panelists did not attempt to re-create guidelines previously developed for countries with high-level resources. Instead, they reviewed and referenced those guidelines as starting points for developing the Global Summit recommendations, which only address care in countries with low- or medium-level resources. The NCCN guidelines for breast cancer screening, diagnosis, and treatment (1) were studied in detail, including the rules for consensus agreement. Common agreement was reached on certain parameters of discussion:

- The Global Summit Early Detection Panel acknowledged the controversial issues in mammographic screening, recognizing differences of opinion among the panelists about screening mammography in women in their 40s and elected not to reiterate these issues. Instead, the panel focused on how to prioritize resource allocation in screening if a country determines that it should provide resources for screening.
- The Global Summit Treatment Panel focused on the treatment of women with localized invasive breast cancer. The panel elected to not make formal recommendations for the management of metastatic breast cancer.
- Formal economic analysis regarding the 2002 Global Summit recommendations was not performed. Instead, the panelists recommended that this type of analysis be considered for the next Global Summit in 2004, and that appropriate expertise be introduced to facilitate comparative economic study.
- In addition, it was decided that recommendations regarding breast cancer prevention would not be made during this 2002 session.

Monograph Preparation

The work product of the three Global Summit panels provides the substance of this monograph. Early detection, diagnosis, and treatment of breast cancer are rapidly evolving areas of medical care. Thus this document should be viewed as a work in progress and not as a template for indefinite application. We anticipate that the guidelines will be revised and refined in subsequent Global Summits.

The purpose of this overview is to describe the themes that were common to each of the three Global Summit panels and to give a brief synopsis of each panel’s findings. The consensus statements from each panel, summarizing the three afternoon panel discussions, follow this overview. Selected individual position papers are provided after the consensus statements. These papers are summaries of the corresponding morning presentations. They provide specific data and discussion that were particularly useful for focusing the afternoon consensus discussions.

Scope and Duration of the Recommendations

The panelists at the Global Summit represented a broad spectrum of experts from countries with high-, medium-, and low-level resources. Panelists expressed diverse opinions based on evidence-based medicine, clinical experience, and differing practice environments. Thus the recommendations made by the panels represent a collective vision and interpretation of current data. There were topics on which panelists could not agree. In these cases, differing viewpoints are represented in the consensus statements as best as possible.

These consensus statements represent a work in progress—this monograph is a beginning rather than an
endpoint. The work published here will likely be revisited, revised, and refined in future iterations. We anticipate that the current recommendations will be scrutinized by future panels as new topics and other disciplines of expertise are brought to bear on breast health and breast cancer care in countries with limited resources. Although we do not think that the current version of the Global Summit guidelines will “expire” on some future date, we do expect that later iterations of the guidelines will clarify and may modify statements and positions represented here, based on new information and analyses.

CORE ISSUES IDENTIFIED DURING CONSENSUS DEBATES

Women’s Right to Access Health Care

A successful program for breast health care depends strongly on a woman’s ability to access health care. The panelists unanimously endorsed the core principle that all women have a right to access and receive health care equal to that of men. Population-based educational efforts are required to improve women’s awareness of the importance of breast health and to aid in their recognition of signs and symptoms that should prompt medical evaluation. Programs for providing care must be available, but are not in themselves sufficient. Support systems that allow access to the health care system should also be available. These support systems are likely to be especially important in countries with limited resources, where women play a crucial, ongoing role in the family unit and are often greatly concerned about the potential or actual financial and social consequences if they seek health care.

Guidelines and Standards of Care

There was strong consensus among panelists that the Global Summit guidelines for countries with limited resources should in no way be interpreted as giving permission, either explicitly or implicitly, for the provision of inadequate care to populations from regions where resources are scarce. We are not codifying substandard care, which could lead to inappropriate denial of good care for all. On the contrary, we fully endorse current guidelines developed for countries with high-level resources as providing excellent benchmarks for future development. The goal of the Global Summit guidelines is to help provide a logical pathway by which countries, health care systems, and institutions can sequentially work toward better care for their populations. We continue to seek better technology and approaches to health care in general and breast care in particular, with the ultimate goal of cure for all patients, regardless of resources.

Barriers to Progress

The health care strategies that the panels propose are often complex and difficult to implement in countries with limited resources. In such countries, breast cancer may be overshadowed by more pressing public health problems such as malnutrition, epidemic infectious disease, and certain other cancers (such as cervical cancer). The many factors challenging formal public health programs in such countries may include political instability, cultural barriers, human rights issues, a high rate of population migration, and isolation of some segments of the population.

Breast cancer and its treatment impact the patient, the patient’s family, and society in many ways beyond the purely medical. Consequently breast health care programs must incorporate and respect the cultural and religious values and other social milieus of the patient. Specific barriers to health care vary from country to country and culture to culture. For example, Global Summit participants noted many different reasons why a woman in a limited-resource country may not seek out a health care provider when she finds a breast lump: she may not know that the lump may be cancer and a threat to her life; she may believe that the lump is cancer but thinks that cancer is incurable; she may not place a high value on her own life; she may not be able to distinguish the lump from other lumps she has experienced (e.g., lactation-related lumps); she may be reluctant to have her breasts examined for cultural reasons; she may not have access to care; or she may rely on self-medication.

Discussion of women’s health in general and breast health in particular may be taboo in some countries, and these social boundaries need to be considered and addressed. Unless women are provided with this critical health information, their situation is unlikely to change and breast cancer mortality rates may be higher than necessary. Thus a key question for health care ministries is how this information can be provided in ways that will be accepted by the community at large.

Common Requirements for the Development of Breast Health Care Programs

**Education.** Education of health care providers and the public about breast health and breast cancer detection, diagnosis, and treatment is central to the provision of high-quality breast cancer care. Education is particularly
critical to early detection, which in turn is central to appropriate resource use.

**Data Collection.** Collecting data is key to all aspects of breast health care. Data assist in assessing the effectiveness of breast cancer care and in identifying areas to which limited resources may be applied to optimize this care. Data collection is essential for showing that early detection efforts are having an impact, and ideally is accomplished in a stage-specific fashion. Many countries and regions currently have no processes in place for collecting the most basic of data (e.g., breast cancer incidence). A detailed cancer registry is a long-term goal, but simpler approaches may be more feasible while health care programs are becoming established. Cancer registries help determine how effective breast cancer care is in the region of the registry and strategies for resource allocation that are most likely to improve that care. Thus cancer registries are pivotal for the success of a breast cancer program.

It is difficult to determine the true incidence of breast cancer in many countries with limited resources. In some health care systems, a low reported cancer incidence might be an artifact of a low rate of detection and/or an inability of women to access the system. In other systems, internally driven factors may make collected data inaccurate. For example, some national health care systems may reward hospitals for having more favorable outcome statistics. This practice creates a disincentive for accurate reporting of advanced-stage disease. Ultimately each health care ministry must consider its own issues to achieve accurate data collection.

The consensus of all three panels was that proper data registries are a driving need in all countries to allow for monitoring of progress. However, panelists also acknowledged that each country must individually assess how to perform the data collection process.

**Centralized Cancer Centers.** Providing a basic structure for the proper diagnosis and treatment of cancer is critical for the success of a public health cancer program. One comprehensive strategy is to create government-oriented, cost-effective, centralized diagnostic and treatment centers—cancer centers—strategically located in certain geographic regions, where surgical procedures, basic radiotherapy equipment, and essential anticancer agents for the treatment of highly curable forms of cancer and agents for pain control are available (6). In most limited-resource settings, it is unrealistic to try to establish high-level care throughout a region. The cancer center approach ensures that at least a portion of the population can receive adequate care, with the important goal that as more resources become available, additional centers can be established, creating an integrated health care network.

**KEY FINDINGS**

**Importance of Early Detection**

In contrast to most abundant-resource countries, where less than 10% of women with breast cancer present at late stages, clinical stage III is the stage at presentation in about 50% of women in countries in Africa, Asia, and Latin America. Data from academic institutions such as the Breast Unit at the University of Sao Paulo, Brazil, and the Institute of Neoplastic Diseases of Lima, Peru (7), and from various regions of India (8) clearly illustrate this phenomenon. However, the 5-year breast cancer survival rate on a stage-per-stage basis does not differ substantially for women in limited- and abundant-resource countries. For example, data obtained from a series of patients who attended the Breast Unit of the Hospital Erasto Gaertner in Curitiba, Brazil, show that the 5-year survival rate of that patient population was similar to what could be observed in community hospitals in most abundant-resource countries (7, 9). This highlights the critical importance of reducing the stage at diagnosis in the limited-resource setting and provides a strong rationale for promoting public education and awareness of the importance of early detection of this disease.

Late diagnosis of breast cancer significantly increases the probability that a woman has occult distant metastases. That in turn negatively impacts the effectiveness of treatment, making it less likely that treatment will reduce mortality.

Efforts toward the early detection of breast cancer should be focused on implementing cost-effective public health strategies to improve early detection in women with cancer that is producing symptoms and to promote large-scale mammographic screening in asymptomatic women with a predefined risk for developing the disease. The Early Detection Panel panel suggests implementing a screening program in a sequential fashion, when cancer diagnosis and treatment are already available, accessible, and affordable. Therefore, establishing screening programs is a lower priority than developing treatment programs in limited-resource countries. Once diagnosis and treatment are available, implementation of screening programs can begin.

**Screening Mammography**

The role of breast cancer screening in reducing breast cancer mortality has been a source of heated international
debate. Randomized trials in many parts of the world have suggested that screening mammography reduces breast cancer mortality. However, other trials have failed to show this benefit or have suggested that the benefit does not occur until women are older than 50 years of age. Most cancer specialty groups in the United States, such as the American Cancer Society (10), have concluded that mammographic screening saves lives and recommend that women in the United States have mammograms annually or every 1–2 years beginning at age 40 years.

Unfortunately widespread use of mammographic screening is not a realistic goal in most countries with limited resources, at least at the present time. Many do not have the equipment, trained personnel, or supplies to organize such programs. Where equipment is available, its quantity is often limited, such that it must be reserved primarily for breast cancer diagnosis rather than for screening. Therefore other measures for early detection, such as education and awareness, become the key tools in public health strategies.

Breast Self-Examination and Clinical Breast Examination

Breast self-examination (BSE) is also a topic of controversy. A recently reported randomized trial of programs teaching BSE in Shanghai, China (11), suggests that this practice, in the absence of mammographic screening, does not reduce breast cancer mortality. Future studies need to analyze whether other modalities that are less resource intensive than screening mammography can be used with reasonable anticipation of reducing the morbidity or mortality of breast cancer. Although formal efforts to teach BSE have not been found to reduce breast cancer mortality, clinicians have not discouraged women from performing BSE. It is still regarded as a core component of breast health awareness that contributes to early diagnosis. Women who choose to perform BSE should be aware that most lumps are not cancer and that they may be at increased risk for having negative biopsies. The panelists recommend that all women be familiar with their breasts and seek medical advice if they notice any changes.

Clinical breast examination (CBE) is another area of discussion and debate. CBE is central to breast health evaluation and is a primary method of diagnosis in countries with limited resources. The consensus of the panel is that CBE should be part of routine health examinations, whether it is used as a screening test in women who do not examine themselves, or as a diagnostic test for women who have breast lumps by BSE. This practice may serve to increase breast health awareness on the part of both the woman and the health care provider; it may encourage a woman to see her provider more often; and it may help reduce the cancer stage at diagnosis. The value of these benefits is likely to be most striking in countries where women typically present with more advanced breast cancer. To this end, educating health care providers about the importance of CBE and training them in proper CBE technique is critical. Nevertheless, we lack data showing improved survival on the basis of screening programs that exclusively use CBE for screening. Studies in countries with limited resources in which patients commonly present with locally advanced disease could be very informative in this regard.

Breast Cancer Diagnosis

A “clinical diagnosis” refers to a diagnosis based on findings noted on a history, a CBE, or breast imaging studies (e.g., mammography and ultrasound). A “pathologic diagnosis” refers to a diagnosis resulting from microscopic examination of cells or tissues that allows a lesion to be properly categorized pathologically. A key issue in breast cancer diagnosis is that the diagnosis must be made with tissue sampling and cytopathologic analysis. This issue has implications for early detection and treatment. In some areas of the world, a breast cancer diagnosis is made by mastectomy. In the event that the woman actually has a benign condition that clinically mimics cancer, the mastectomy is unnecessary and may have devastating effects. Therefore tissue sampling before definitive treatment of breast cancer is critical.

Breast Cancer Treatment

Surgery has been the mainstay of breast cancer treatment since the late 19th century. Halsted’s classic report describing his results with radical mastectomy (12) heralded a new era in cancer treatment. This operation, which appears morbid and disfiguring by many modern standards, demonstrated that local control of malignant growth can be achieved through wide excision of both the tumor and the tumor-containing tissue bed. In 1948 Patey and Dyson (13) showed that removal of the pectoralis muscles during radical mastectomy does not impact long-term survival after the operation for the majority of women with breast cancer, thereby showing the safety of modified radical mastectomy.

Breast-conserving therapy with lumpectomy and breast radiation therapy represents an advance in cancer care, both for preserving the breast and for demonstrating a conceptual advance in understanding breast cancer biology. Halsted’s concept that breast cancer spreads in series from the breast to the lymph nodes and finally to distant metastatic beds
was displaced by the concept of Fisher et al. (14) that breast cancer exists and spreads as a systemic disease from inception. Two recent 20-year follow-up reports on randomized breast-conservation studies from the American National Surgical Adjuvant Breast and Bowel Project (NSABP) B-06 trial (comparing lumpectomy, lumpectomy with radiation, and mastectomy) (15) and the Milan study (comparing breast-conserving therapy and Halstedian radical mastectomy) (16) essentially end further debate, confirming the overall equivalence of breast-conserving therapy and mastectomy for treating breast cancer.

Today local-regional and systemic therapies are recognized to be separate but related issues. As such, surgery and systemic therapies are complementary rather than competitive. More extensive and morbid surgery cannot replace systemic therapy, which treats micrometastatic disease. Conversely, neither cytotoxic chemotherapy nor hormonal therapy appears able to replace proper breast-conserving therapy (excision of gross tumor with negative margins plus radiation of the remaining breast and, when appropriate, lymphatic beds) or mastectomy.

In countries with limited resources, implementation of the major advances of the 20th century may be hindered by a lack of health care resources. As a one-time intervention, surgery is available to women with breast cancer who can travel to hospitals and be admitted for care. Radiation therapy, on the other hand, is considerably less available, particularly when the therapy requires multiple sessions over time. Its cost is typically prohibitive for women without insurance, governmental subsidy, or private wealth. As a result, the application of breast-conserving therapy, although feasible, may not be practical. Similarly, systemic chemotherapy, when available, is very costly. Yet of the three categories of treatment, it is systemic therapy that provides the most significant mortality reducing benefit. Thus the separation widens between countries with limited resources and countries with abundant resources. Cancer detected by imaging, such as ductal carcinoma in situ, may be a disease of wealthy countries, whereas countries with limited resources find themselves faced primarily with locally advanced disease, for which treatment options are limited, costly, and less likely to save lives.

CONCLUSION

It is possible to help women with breast cancer in countries with limited resources. Focused attention on education among women and health care providers can lead to early breast cancer detection. Accurate diagnosis can help ensure that a woman receives appropriate treatment and that women without cancer are not erroneously treated for the disease. Breast cancer treatment is more practical and less resource intensive when cancer is in an early stage at the time of diagnosis.

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Appendix A. World Health Organization Definitions of Low, Medium, and High Levels of Resources (5)

**Low level of resources (scenario A)**
This scenario refers to low income countries where resources for chronic disease are completely absent or very limited. Many such countries may have great political and social instability. A considerable proportion of the population is rural. Infant and adult mortality rates are high. Communicable diseases and malnutrition are a major cause of morbidity and mortality, especially for children. Life expectancy is relatively low. Cancer is not one of the main problems in general, but over 15 years of age it can be one of the leading causes of death. The majority of cancer patients are diagnosed in advanced stages…. Health care services are often delivered by informal means, and alternative medicine is a major component. Infrastructure and human resources for cancer prevention or control are nonexistent or very limited in quantity, quality, and accessibility….

**Medium level of resources (scenario B)**
“Countries in this scenario are often considered ‘middle-income’ countries. The majority of the population is urban and life expectancy is over 60 years. The country has passed through the epidemiological transition, and cancer is usually one of the leading causes of disease and mortality. There is a high exposure to risk factors, especially tobacco, diet, infectious agents, and carcinogens in the workplace. Infrastructure and human resources for developing cancer prevention, early detection, diagnosis, treatment, and palliative care are available but with limitations in quantity, quality, and accessibility. Weaknesses can be identified in organization, priority setting, resource allocation, and information systems for adequate monitoring and evaluation. Primary prevention and early detection are usually neglected in favor of treatment-oriented approaches, without much concern regarding their cost-effectiveness….”

**High level of resources (scenario C)**
“This scenario is appropriate for industrialized countries with a relatively high level of resources for health care. In these countries life expectancy is over 70 years, and cancer is a major cause of death for both men and women. Many elements of a cancer control programme are in place, but they may not be well integrated into a comprehensive national system. Further, coverage of the population may be uneven, with particular groups such as those in rural areas, indigenous people and recent immigrants having difficulty accessing services. Reorganization of the system could bring benefits in terms of greater cost effectiveness and improved reach and acceptability of services.”

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Appendix B. World Health Organization Priority Actions for National Cancer Control Programs, According to Level of Resources (5)

| Component | All countries | Scenario A: low level of resources | Scenario B: medium level of resources | Scenario C: high level of resources |
|-----------|--------------|-----------------------------------|--------------------------------------|-----------------------------------|
| National cancer control program | • Develop a national cancer control program to ensure effective, efficient and equitable use of existing resources  
• Establish a core surveillance mechanism to monitor and evaluate outcomes as well as processes  
• Develop education and continuous training for health care workers | • Consider the implementation of one or two key priorities in a demonstration area with a stepwise approach  
• Consider palliative care as an entry point to a more comprehensive approach  
• Use appropriate technologies that are effective and sustainable in this type of setting | • When initiating or formulating a cancer control program, consider implementation of a comprehensive approach in a demonstration area using a stepwise methodology  
• Use appropriate technologies that are effective and sustainable in this type of setting  
• Implement a surveillance system, tracking all program components and results  
• Provide support for less affluent countries | • Full, nationwide implementation of evidence-based strategies guaranteeing effectiveness, efficiency, and accessibility  
• Implement a surveillance system, tracking all program components and results  
• Provide support for less affluent countries |
| Early diagnosis | • Promote early diagnosis through awareness of early signs and symptoms of detectable and curable tumors that have high prevalence in the community, such as breast and cervical cancer  
• Ensure proper diagnostic and treatment services are available for the detected cases  
• Provide education and continuous training to target populations and health care providers | • Use low-cost and cost-effective community approaches to promote, in a first phase, early diagnosis of one or two priority detectable tumors in a pilot area with relatively good access to diagnosis and treatment | • Use low-cost and cost-effective community approaches to promote early diagnosis of all priority detectable tumors | • Use comprehensive nationwide promotion strategies for early diagnosis of all highly prevalent detectable tumors |
### Appendix B. Continued

| Component   | All countries                                                                 | Scenario A: low level of resources                                                                 | Scenario B: medium level of resources                                                                 | Scenario C: high level of resources                                                                 |
|-------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Screening   | • Implement screening for cancers of the breast and cervix where incidence justifies such action and the necessary resources are available | • If there is already infrastructure for cervical cytology screening, provide high coverage of effective and efficient cytology screening for women ages 35–40 years once in their lifetime or, if more resources are available, every 10 years for women ages 30–60 years | • Provide national coverage cytology screening for cervical cancer at 5-year intervals to women ages 30–60 years | • Effective and efficient national screening for cervical cancer (cytology) of women more than 30 years old and breast cancer screening (mammography) of women more than 50 years old |
| Curative therapy | • Ensure accessibility of effective diagnostic and treatment services<br>• Promote national minimum essential standards for disease staging and treatment<br>• Establish management guidelines for treatment services, essential drugs list, and continuous training<br>• Avoid performing curative therapy when cancer is incurable and patients should be offered palliative care instead | • Organize diagnosis and treatment services, giving priority to early detectable tumors | • Organize diagnosis and treatment services, giving priority to early detectable tumors or to those with high potential of curability | • Reinforce the network of comprehensive cancer treatment centers that are active for clinical training and research and give special support to the ones acting as national and international reference centers |