Breast Cancer Care
Knowledge Summaries:
What are they? What is the goal?

A Toolkit for Policymakers & Clinicians

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Disclosure of Interest: None Declared
Background

Why Knowledge Summaries?

Knowledge Summaries for Comprehensive Breast Cancer Care

- Needs assessments
- Economic analysis
- Implementation science

(for policymakers)

- Clinical trials
- Systematic reviews
- Standards of care

(for clinicians)
What this Knowledge Summary (KS) covers:

This module covers the major breast cancer early detection strategies including breast cancer awareness (patient, community and health professional education), breast self-exams (BSE), and clinical breast exams (CBE). A description of how to perform a CBE is included in the Early Diagnosis: Signs and Symptoms module. A discussion of breast cancer mammographic screening is provided in the Early Detection: Imaging Modalities module.
Mixed methods for early detection: In some countries, mixed screening strategies may be appropriate based on differences in local availability of resources and expertise. For example, a rural setting may be able to implement breast awareness programs, tissue biopsy followed by mastectomy for definitive surgical treatment, while synchronous implementation in urban, higher resource settings of the same country could include mammographic screening, core needle biopsy followed by breast conservation therapy with lumpectomy followed by radiation therapy for definitive local cancer control. Mobile screening units may decrease inequities in access to care, however, this approach can substantially increase the overall cost of screening programs. Other studies have found that the scaling-up availability of effective early detection programs can result in substantial improvement in overall health at a relatively low overall cost.

Data collection: Health professionals and health ministers must work together to support the collection and consolidation of data and tracking of indicators based on national standards and goals. Collaborative efforts can help decentralized systems develop organized breast screening programs (see Case Study # 1).

Resource-stratified care pathways: Using a resource-stratified pathway allows programs to begin with breast cancer awareness, and diagnostic CBE, and move along the pathway toward organized mammography screening as more resources become available (see Table 1).

Policy Impact
Planning Step 3: How do we get there?
Bridge gaps and overcome existing barriers
- Programs should address known structural (e.g., social factors), organizational (e.g., access for ethnic or minority groups), psychological (e.g., fear of cancer and perceived resultant fatality), sociocultural (e.g., woman’s status as decision-maker), financial (e.g., cost of barriers that preclude women from using breast-screening services).

Partnerships and financing
- Regional, national and international advocacy groups are key strategic partners in the development and advancement of early detection programs, including fundraising.

Coordination of care
- Health care systems are central to coordination of care and optimal use of available resources. Centralized cancer facilities can serve as referral centers where more advanced screening, registries and monitoring, diagnosis, and treatment can be performed with less fragmentation of care.

National and regional policy makers must consider concerns about access for low-resource communities with screening and treatment facilities available at centralized cancer centers.

Monitor and evaluate
- Predefined metrics should be established at the beginning of the program to measure its relevance, effectiveness, and impact; impact measures include tumor size at presentation and participation rates.
- The quality and safety of screening programs must be monitored (e.g., education, training and expertise of personnel), standardization of protocols, time from referral to diagnosis to treatment.

CLINICAL KNOWLEDGE SUMMARY EARLY DETECTION MODULE (1 OF 3): BREAST AWARENESS & CLINICAL BREAST EXAM

Clinical Knowledge:

- What we know
  Breast Awareness (Downstaging, cultural context)
  BSE (effectiveness)
  CBE (screening tool)

- What works &
  What does not work
  From patient & community
  From health professionals
  Opportunistic vs organized screening
  Quality control
  Care across continuum

- How do we get there
  Public awareness
  Primary care & Referrals
  Data collection
  Mixed method analysis

Preplanning
- Establish goals & priorities

Planning Step 1: Where are we now
- Assess:
  Burden
  Existing programs
  Capacity
  Barriers to care
  Cost-effectiveness

Planning Step 2: Where do we want to be
- Choose target & approach
  Anticipate barriers
  Set achievable objectives

Planning Step 3: How do we get there
- Bridge gaps
  Partnering & Financing
  Coordination of care
  Monitor & Evaluation
CONCLUSIONS

Breast cancer awareness is a key component of early diagnosis efforts. Women need to know the most common symptoms associated with breast cancer, such as lumps and thickenings, and they must be empowered to access these services in a timely fashion. Breast awareness should include the full range of stakeholders: women, men, community at large (the public), health professionals, health system administrators and policymakers. Advocacy groups can provide valuable support and influence public and political awareness. At a minimum, healthy systems must be prepared to evaluate women who present with breast complaints, and refer them for timely diagnosis and treatment. Health professionals need to be trained in clinical breast exams (CBE) and breast health counseling, including culturally sensitive patient-clinician communication strategies.

Early detection screening methods should realistically match available resources (staff, equipment, facilities) and community support and access to care. CBE provides a lower-cost screening modality than mammography and requires fewer resources to implement and is most appropriate in settings where early detection has not previously been made available to the public. In LMICs, CBE can function as a transitional screening modality along a resource-stratified pathway before introduction of screening mammography, which may or may not be implemented depending on existing resources and current cancer stage at diagnosis. Structural, organizational, psychological, sociocultural, and financial barriers that preclude women from utilizing available breast cancer services must be overcome to improve breast cancer early detection. Implementation research on breast cancer awareness efforts, particularly those studies performed in developing countries, should continue to inform and guide program development. Successful implementation of early detection programs, cognizant of local barriers, can result in downsizing of breast cancer and improved overall health outcomes.

Table 1. Resource-stratified pathway for breast cancer early detection and screening programs.

<table>
<thead>
<tr>
<th>Public Education and Awareness</th>
<th>Detection Method</th>
<th>Evaluation Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic (Level 1)</td>
<td>Development of culturally sensitive, linguistically appropriate local education programs for target populations to teach value of early detection, breast cancer risk factors and breast health awareness (education + self-examination)</td>
<td>Breast health awareness regarding value of early detection in improving breast cancer outcome</td>
</tr>
<tr>
<td>Limited (Level 2)</td>
<td>Culturally and linguistically appropriate targeted outreach/education encouraging CBE for age groups at higher risk administered at district/provincial level using healthcare providers in the field</td>
<td>Downsizing of symptomatic disease</td>
</tr>
<tr>
<td>Enhanced (Level 3)</td>
<td>Regional awareness programs regarding breast health linked to general health and women’s health programs</td>
<td>Mammographic screening once every 2 years in women ages 50-69</td>
</tr>
<tr>
<td>Maximal (Level 4)</td>
<td>National awareness campaigns regarding breast health using media</td>
<td>Consider annual mammographic screening in women ages 45 and older</td>
</tr>
</tbody>
</table>

Adapted from the Breast Health Global Initiative (BHGI) guidelines, 2008

DEFINITIONS: Basic (level 1) resources are core resources or fundamental services absolutely necessary for any breast health care system to function; basic-level services are typically applied in a single clinical interaction. Limited (level 2) resources are attainable with limited financial means and modest infrastructure. Enhanced (level 3) resources are optional but important, and improve options and outcomes. The maximal (level 4) resource-allocations are lower-priority, higher-cost options, and are generally not recommended in low or limited resource settings.
## Foundation Resource Stratification

- Validated resource-stratified guidelines from BHGI
- Provide a Care Pathway
- Resource utilization & prioritization
- Integration of services
- Communication tool

### Table 1. Resource-stratified pathway for breast cancer early detection and screening programs.

<table>
<thead>
<tr>
<th>Level of Available Resources</th>
<th>Public Education and Awareness</th>
<th>Detection Method</th>
<th>Evaluation Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic (Level 1)</td>
<td>Development of culturally sensitive, linguistically appropriate local education programs for target populations to teach value of early detection, breast cancer risk factors and breast health awareness (education + self-examination)</td>
<td>Clinical history and CBE</td>
<td>Breast health awareness regarding value of early detection in improving breast cancer outcome</td>
</tr>
<tr>
<td>Limited (Level 2)</td>
<td>Culturally and linguistically appropriate targeted outreach/education encouraging CBE for age groups at higher risk administered at district/provincial level using healthcare providers in the field</td>
<td>Diagnostic breast US +/- diagnostic mammography in women with positive CBE</td>
<td>Downsizing of symptomatic disease</td>
</tr>
<tr>
<td>Enhanced (Level 3)</td>
<td>Regional awareness programs regarding breast health linked to general health and women’s health programs</td>
<td>Mammographic screening every 2 years in women ages 50-69</td>
<td>Downsizing and/or downstaging of asymptomatic disease in women in highest yield target groups</td>
</tr>
<tr>
<td>Maximal (Level 4)</td>
<td>National awareness campaigns regarding breast health using media</td>
<td>Consider mammographic screening every 12-18 months in women ages 40-49</td>
<td>Downsizing and/or downstaging of asymptomatic disease in women in all risk groups</td>
</tr>
</tbody>
</table>

Adapted from the Breast Health Global Initiative (BHGI) guidelines, 2008
Implementation & Integration

Health system approach
- Care Pathways
- Communication tool
- Strengthening of resources
- Cost-effective use of services
- **Integration**

Effective implementation
- Adaptability to country context
- Monitoring & evaluation
Case Study 1: Using a national tracking system to implement a systematic mammography screening program.

**BHGI 2010 GLOBAL SUMMIT: HEALTH POLICY AND EARLY DETECTION, BRAZIL**

**Background:**
A national survey found that 75% of Brazilian women age 40 years or older had undergone CBE at least once in their lives, and 40% within one year prior to the survey. There were notable regional differences, as well as differences related to household income; 52% of women from low-income households compared to 96% of women from high-income households reported having undergone a CBE. In addition, 71% of women age 50-69 years reported having undergone mammography at least once in their lives, and 54% within 2 years. Mammography coverage was greater in the South and lower in the North. While there were no significant regional differences in mammography coverage overall, there were important regional differences within the low-income population, with a mammography coverage of 28% in the North, 56% in the South, and 67% in the Southeast.

**Study:**
Although Brazil’s National Program for Early Detection of Breast Cancer recommends annual CBE for all women starting at age 40 years old and mammography every 2 years for women at age 50-69 years old. To date, only one municipality, Curitiba, in late 2009, has established organized breast cancer screening.

**Outcome:**
A new program to track publicly-financed mammograms and breast biopsies, SISMAMA, was launched in December 2008 that requires a government facility, a contracted private imaging center or a pathology laboratory to provide certain standardized information that is recorded in SISMAMA prior to reimbursement. Over 1.5 million mammograms have been conducted nationally and entered into SISMAMA to be analyzed.

The UICC would like to acknowledge the Breast Health Global Initiative of the Fred Hutchinson Cancer Research Center, the Center for Global Health of the National Cancer Institute (USA), and the Pan American Health Organization as valuable partners in the development of the Knowledge Summaries of Comprehensive Breast Cancer Control and for its extensive expertise and resources in making these summaries a reality that will benefit women worldwide.
Knowledge Summaries

Where to go from here?

Current Status

• Expert review

• ICCP portal - http://www.iccp-portal.org/resources-home
Thank you

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