Developing Nations Face Challenges as Breast Cancer Rises

By Vicki Brower

Patients suspected of having breast cancer at a public clinic in Mexico City returned an average of seven times before receiving a definitive diagnosis; those diagnosed waited more than 6 months on average for treatment. In eastern Nigeria, 30% of women with symptoms of breast cancer refused biopsies, and more than half declined surgery when their disease was confirmed.

These examples are part of a new series of studies published in the April 2011 supplement to The Breast, on the challenges facing women with breast cancer who live in low- and middle-income nations (LMNs). In many such nations, patients must deliver their own biopsy samples to labs for processing, obtain their own cancer drugs, and pay for procedures in advance. Most patients present with late-stage disease.

These challenges are only bound to increase as breast cancer incidence rises rapidly in the developing world. According to a study in the Sept. 13 issue of The Lancet, 65% of all breast cancer cases in 1980 occurred in developed countries, but by 2010, incidence was greater in developing nations. The study, which the Institute for Health Metrics and Evaluation (IHME) conducted, also found that some LMNs are seeing an annual uptick in breast cancer cases of more than 7.5%, more than twice the global rate.

Understanding Cultural Barriers

To help contain this situation, the Breast Health Global Initiative (BHGI), which conducted the studies of Mexican and Nigerian women, among others, recently issued a new set of guidelines for diagnosing and treating women in LMNs.

“What we found over the years is that guidelines from the National Comprehensive Cancer Network don’t work in LMNs for a variety of reasons,” explained Benjamin Anderson, M.D., director of the BHGI and professor of surgery and global health medicine at the University of Washington in Seattle, adding that the guidelines may also apply to certain U.S. communities. “This was one of the drivers of our research, to learn about our own communities in the U.S. and to better help them.”

The BHGI report, published in the April 1 edition of The Lancet Oncology, highlights the importance of qualitative research in understanding cultural norms and local attitudes about cancer to improve care. “If you asked me 5 years ago about qualitative research and sociology, I would have called them ‘soft science,’” Anderson said, adding that understanding social obstacles is crucial for improving outcomes. Michal Schonbrun, M.P.H., the founder of several health organizations for women in Israel, agreed. “If you don’t know what cultural beliefs a specific population has, you won’t get very far,” said Schonbrun, who taught breast self-examination to groups of Palestinian Arab and Israeli women for 17 years and helped establish the Israeli Breast Cancer Coalition. She said identifying the factors that prevent or promote participation in early detection programs is key to the success of population-based cancer programs.

Cancer Care in Politically Volatile Regions

Part of the BHGI report focused on the Middle East. In Gaza, breast cancer is the most common cancer among women and is the leading cause of women’s cancer deaths. The 5-year survival rate is 30%–40%. With just four mammography machines for 700,000 women, mammograms are neither an option nor a cultural norm. “Women are also more likely to go to a doctor if there is a problem, rather than for screening, which is not popular in Arabic culture,” said Rola Shaheen, M.D., staff radiologist at Beth Israel Deaconess Medical Center in Boston and lead author of BHGI’s Gaza study.

Carol El-Jabari, M.P.H., executive director of the Palestinian Friends Society, a nongovernmental organization (NGO) based in Jerusalem, agreed. “If there is no problem, women do not go in for mammograms,” El-Jabari said. “The main problems for women in the West Bank and Gaza, and in regions with similar challenges, are access, availability, and affordability.” Her NGO aims to help alleviate those problems by educating women in breast self-examination, running support groups for breast cancer survivors, and training health care professionals in breast health in the West Bank.

In the Gaza women’s study, Shaheen discovered important differences between two Gaza populations—women in Gaza (WIG) and women outside Gaza (WOG)—regarding beliefs about breast cancer. The study included 155 Gazan women—100 WIG and 55 WOG. Although more than 90% of both groups said they would undergo a diagnostic mammogram for a symptom, and that early screening increased survival, only 27% of WIG and 50% of WOG said they would undergo a screening mammogram. WOG were more...
likely to have had a screening mammogram and less likely to be embarrassed to have one. WIG reported a lack of availability and affordability, as well as concern about personal safety traveling to medical centers. According to Shaheen, a statistically significant difference emerged between the two groups’ responses to questions of affordability and accessibility of breast care, with WOG, who have better socioeconomic circumstances, more likely to get better breast health care.

Another barrier to care in Gaza is the misconception that breast cancer is not treatable. That, combined with low survival rates in Gaza women with the disease, and the cultural attitude of ‘not looking for problems if there aren’t any,’ makes many WIG unwilling to get screened, Shaheen said, adding that most women expressed a desire to reduce their risk of breast cancer.

Unlike Gaza, the West Bank has plenty of mammography machines owing to many foreign donations. The biggest obstacle to care in the West Bank is that doctors don’t tell women to get screened, or teach breast self-exams, said El-Jabari. “There is a poor standard of training of physicians there and in other Arab nations,” she said. Funding for training health care professionals to teach breast self-examination is a problem. A previous study published online in August 2010 in Cancer with Palestinian women indicated that Muslim women, especially those who are more religious, were more resistant to screening mammograms. Being religious was also associated with greater fatalism, researchers found.

For mammograms, Israeli women—despite having higher incomes and education levels—face issues similar to those of West Bank women. A glut of mammography machines exists in (Israeli) west Jerusalem but also a lack of trained physicians to perform and teach breast exams, said Schonbrun. “In Israel, it is the surgeon who is responsible for performing exams, not OB-GYNs,” she said. “But how many women without problems go to surgeons?” Religious Israeli women face challenges similar to those of religious Palestinian women, including social stigma and shame about disease, and fatalistic attitudes, said Schonbrun, adding that rabbis’ involvement in encouraging these women to seek screening and treatment has been vital. And a new organization, Bishvilaych, the Women’s Well-Health Center, is teaching women breast self-examination in the homes for small groups of women and offering mammograms in their neighborhood.

Other NGOs include the Sunrise Group, the first psychosocial group in the region for Palestinian women living with breast cancer, which El-Jabari founded 10 years ago, and Project COPE, a joint effort of the Palestinian Friends Society and two Israeli NGOs that brings together Palestinian and Israeli women with breast cancer to share experiences, develop joint activities that promote empowerment, and enhance coping. Both groups help women speak about their experiences for the first time in a supportive atmosphere and help combat the fear, stigma, and fatalism surrounding breast cancer in both Israeli and Palestinian societies.

In Kashmir, another politically volatile region where most of the population is illiterate, rural, and Muslim, women are also diagnosed late and have fatalistic attitudes toward breast cancer, the second-leading cause of women’s death in the region after esophageal cancer. In their study of Kashmir, Khurshid Guru, M.D., associate professor at the Roswell Park Cancer Institute in Buffalo, N.Y., and colleagues recruited 520 women from five villages after intensively training interviewers to go door to door to survey living conditions and medical histories. “We found that women had some awareness of breast cancer, but there were no screening or treatment programs in place,” Guru said in an interview. Ninety-six percent of women interviewed knew about breast self-examination, from the media, but only 4% had performed one, according to the study, published in the April 2011 supplement to The Breast.

The researchers followed up their study by organizing a team to teach breast self-examination to small groups of women in their homes by using a Hindi video and handouts. They also instituted an active health surveillance program in this region, with a focus on breast cancer. Dr. Guru’s philanthropic organization, Guru Charitable Foundation, developed the women’s health initiative program, donated a sonogram machine to the program and subsidizes ultrasounds.

Finding Solutions
The BHGI panel found that low awareness of breast cancer, and common misconceptions about the disease, in conjunction with late diagnoses, were the most pressing problems in low-resource regions. In areas where inadequate surgeries are common, older, simpler technologies may be preferred. For example, the panel recommends older cobalt radiotherapy over the more sophisticated, but also more complex and technically demanding, linear accelerators common in high-income countries. Cobalt machines are relatively inexpensive and reliable; unlike linear accelerators, they require neither constant access to a stable electrical source nor constant running water to keep the equipment cool.

The dearth of pathology services in these areas also complicates determining patients’ hormonal status and delivering appropriate treatment. To address this issue, the panel strongly recommends setting up labs and training pathologists to determine receptor status, along with training physicians to do breast exams and...

We found that women [in Kashmir] had some awareness of breast cancer but there were no screening or treatment programs in place.
teach self-examination, putting a cancer control program in place that would help pay for chemotherapy and other treatments, and training providers about supportive care. It also recommends that surgeons get better technical training to improve mastectomies and node dissections.

Even for middle-income nations, late-stage presentation is a major issue. Countries such as China, the Philippines, and Colombia often lack simple early detection programs based on routine clinical breast examination, or public education programs encouraging women to come in for evaluation when they discover a breast lump on self-examination, said Anderson, adding that World Health Organization guidelines state that at least 70% of the targeted population needs to be screened for a program to be successful. “It is also important to understand that screening works only when it is performed repeatedly over time (every 1–2 years) so that cancers can increasingly be found when they are still early,” he said.

© Oxford University Press 2011. DOI: 10.1093/jnci/djr529