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WHITE PAPER: Breast Cancer and Low Income Women

Alexandra, a 42-year-old mother of four children, lives in a small mining community in southwestern Ecuador. She provides her children with love and sustenance while also caring for her husband, who suffers from a number of maladies caused by poor ventilation in the gold mines where he worked. He can no longer work, and she must earn enough money as a maid to support the family.

One day, Alexandra notices that one of her nipples is discharging fluid. She is concerned, and tells her husband. He is also concerned but he is unfamiliar with her symptoms and cannot offer advice. Her friends suggest herbal remedies and prayer as treatment. After spending several weeks fruitlessly waiting for the discharge to stop, Alexandra decides to travel to the city of Machala to see a doctor. Transportation costs and time off from work will cost her the equivalent of two weeks of food for her family.

At the hospital, Alexandra finds a nurse who performs a breast examination. The nurse discovers lumps in Alexandra's left breast, and asks Alexandra if she ever noticed them herself. Alexandra says that the lumps have been there for weeks, but she assumed they were just a natural side-effect of aging. The nurse gently informs Alexandra that the lumps may actually be cancerous. Alexandra is stunned. She has never known anyone with breast cancer before. Alexandra also knows that there is no way she could afford any treatment the hospital may offer. She cannot even afford to return for a follow-up exam without sacrificing the welfare of her family.

Upon her return, Alexandra does not tell her family about her experience. She prays that the disease will go away on its own. A year later, Alexandra's breast cancer has spread to her lungs and liver. She passes away soon thereafter, and nobody in her community knows why.

Breast cancer ranks first among cancers affecting women throughout the world. The latest estimates suggest that more than one million breast cancer cases occur each year and that breast cancer is responsible for more than 500,000 deaths each year.¹ Based on estimates of an average annual increase in incidence, the number of new cases projected to be diagnosed in 2010 is around 1.5 million.²

¹ Kathleen Kingsbury, "The Changing Face of Breast Cancer," *Time Magazine*, October 15, 2007, http://www.time.com/time/specials/2007/article/0,28804,1666089_1666563_1668477,00.html

² Robert A. Smith; Maira Caleffi; Ute-Susann Albert; Tony H.H. Chen; Stephen W. Duffy; Dido Franceschi; Lennarth Nystrom, "Breast Cancer in Limited-Resource Countries: Early Detection and Access to Care," *Breast Journal* Vol. 12. S1 (2006): S16.

Throughout the world, women are affected by breast cancer by varying degrees. In the United States, one out of eight women will be diagnosed with breast cancer in her lifetime.³ In Canada, breast cancer is the most common cancer among women: one in nine women will be diagnosed with breast cancer in her lifetime and one in 27 will die of the disease.⁴ Breast cancer is also the most common cancer in England, and is the leading cause of cancer death in women.⁵ In Brazil, breast cancer is the leading cause of cancer-related deaths among women.⁶ The Philippines has the highest incidence rate of breast cancer in Asia, and the ninth highest incidence rate in the world.⁷ While breast cancer rates have traditionally been lower in Asian countries, breast cancer has become the most common form of cancer diagnosed in Japanese women between the ages of 25 and 55.⁸

Although incidence and fatality rates vary by race and geographic location, a clear pattern exists worldwide with regard to income level. Specifically, although high-income women tend to experience higher rates of incidence than low-income women, they also experience significantly higher rates of survival.⁹ According to a 2008 study published in the *British Journal of Cancer*, there continues to be a “worrying” gap between the number of affluent women surviving breast cancer compared with those from deprived backgrounds. One year after diagnosis, survival rates were lower for breast cancer patients from deprived backgrounds than those from affluent backgrounds.¹⁰ Currently, 75 percent of global deaths attributed to breast cancer occur in the developing world.¹¹

The higher fatality rates in low-income countries have been attributed to a number of factors, including insufficient financial resources to screen for and treat breast cancer, poorly-structured health care systems and low public awareness. High fatality rates among low-income women in high-income countries have been attributed to similar factors, including unaffordable health

³ *How Many Women Get Breast Cancer*, September 2006, American Cancer Society, <http://www.cancer.org/docroot/CRI/content/CRI_2_2_1X_How_many_people_get_breast_cancer_5.asp?sitearea> (20 June 2007).

⁴ *Breast Cancer*, 2006, Canadian Breast Cancer Foundation, <<http://www.cbcf.org/en-US/Breast%20Cancer.aspx>> (21 June 2007).

⁵ *Breast Cancer*, October 2005, National Statistics, <<http://www.statistics.gov.uk/cgi/nugget.asp?id=575>> (27 June 2007).

⁶ Claudia Vitoria de Moura-Gallo; Tatiana de Almeida Simao; Fabiana Siqueira Ribeiro, “Abstract: TP53 mutation in malignant breast tumors: association with risk factors and clinical-pathological characteristics, including risk of death, in patients from Rio de Janeiro” *Revista Brasileira de Epidemiologia* Vol 7. No 2 (June 2004): 167-175. Accessed at <http://www.scielo.br/scielo.php?pid=S1415-790X2004000200006&script=sci_abstract> (8 August 2007).

⁷ *Breast Cancer Facts*, 2006, Philippine Breast Cancer Network, <http://www.pbcn.org/wst_page5.html> (21 June 2007).

⁸ *Japan Statistics*, 2002, Run for the Cure, <http://www.runfortheure.org/html/e_japan_statistics.shtml> (21 June 2007).

⁹ Robert A. Smith; Maira Caleffi; Ute-Susann Albert; Tony H.H. Chen; Stephen W. Duffy; Dido Franceschi; Lennarth Nystrom, “Breast Cancer in Limited-Resource Countries: Early Detection and Access to Care,” *Breast Journal* Vol. 12. S1 (2006): S16.

¹⁰ H. Brenner; M.P. Coleman; N. Cooper; J. Esteve; E. Mitry; M.J. Quinn; B. Rachet; M. Riga; R. Sullivan; J. Steward; L.M. Woods. “Cancer Survival in England and Wales at the End of the 20th Century.” *The British Journal of Cancer*, Published online September 23, 2008. www.nature.com/bjc/journal/v99/n1s/full/6604571a.html

¹¹ Martijn T. Groot; Rob Baltussen; Carin A. Uyl-de Groot; Benjamin O. Anderson; Gabriel N. Hortobagyi, “Costs and Health Effects of Breast Cancer Interventions in Epidemiologically Different Regions of Africa, North America, and Asia.” *Breast Journal* Vol. 12. S1 (2006): S81.

insurance and limited access to treatment.¹² Another widely cited reason for the global increase in breast cancer is the “Westernization” of the developing world. This term encompasses desirable changes (socioeconomic improvements that have increased life expectancy) as well as the adoption of less desirable habits (dietary changes and decreased exercise), along with delayed childbearing and reduced breastfeeding, which could increase breast-cancer risk. The cancers causing the deaths in lower-income countries may not be influenced by such factors, however, and more data are needed to clarify their true effect in poorer countries.¹³

While breast cancer adversely impacts millions of women of all ages, races and geographic origins, it most severely impacts low-income women who are disproportionately undereducated and underinsured, and who live in developing countries. These women lack financial resources, health education, and access to preventive procedures and appropriate treatments—not only for breast cancer, but for all health issues. Governments and non-governmental organizations (NGOs) must focus attention on the larger issue of health care as a fundamental right and need of all women. Until they do, thousands of women will continue to lose their lives to diseases like breast cancer that—when detected early and treated properly—are often survivable.

Wealth and Health

Evidence has long suggested an international correlation between income and health: low-income people are more often sick and live shorter lives than wealthier people.¹⁴ In other words, income poverty and health poverty are inextricably linked. As researcher Angus Deaton states: “Those who suffer from material deprivations are also those who suffer from health deprivations.”¹⁵ Statistics on the correlation between health and income are telling: of the 10.8 million children under age 5 who die annually, 10 million (more than 92 percent) live in lower-income countries. This figure represents more than twice the total number of children born annually in the United States and Canada combined. In comparison, less than 1 percent of children die before age 5 in high-income countries.¹⁶ Of the four million people who die annually from respiratory infections, three million live in low-income countries.¹⁷ Ninety-five percent of HIV/AIDS-infected people live in the developing world.¹⁸ Ninety-nine percent of maternal deaths occur in low-income countries.¹⁹

¹² *Fact Sheet: Women’s Health Care in the United States*, 2004, Selected Findings From the 2004 National Healthcare Quality and Disparities Reports, <<http://www.ahrq.gov/qual/nhqrwomen/nhqrwomen.htm#womenshc>> (6 July 2007); AS Kasper, “Abstract: Experiences of poor and low-income U.S. women with breast cancer” *Abstr Book Assoc Health Serv Res Meet* 16 (1999): 162. Accessed at <<http://www.ahrq.gov/qual/nhqrwomen/nhqrwomen.htm#womenshc>> (8 Aug 2007).

¹³ Peggy Porter, M.D. “Westernizing Women’s Risks? Breast Cancer in Lower-Income Countries.” *The New England Journal of Medicine*. January 17, 2008.

<http://content.nejm.org/cgi/content/full/358/3/213>

¹⁴ Angus Deaton, “Global Patterns of Income and Health: Facts, Interpretations and Policies,” UNU World Institute for Development Economics Research. 2007: 4.

¹⁵ *Ibid.*

¹⁶ *Child Health*, 2005, Global Health Council, <http://www.globalhealth.org/view_top.php?id=226> (11 July 2007).

¹⁷ Angus Deaton, “Global Patterns of Income and Health: Facts, Interpretations and Policies,” UNU World Institute for Development Economics Research. 2007: 17.

¹⁸ *HIV treatment access reaches over 1 million in sub-Saharan Africa*, WHO reports, 2006, World Health Organization, <<http://www.who.int/mediacentre/news/releases/2006/pr38/en/index.html>> (8 August 2007).

¹⁹ *Fact of the Week*, 2007, UNICEF, <http://www.unicef.org/factoftheweek/index_39707.html> (11 July 2007).

Despite such disproportionately high fatality rates, the world continues to under-invest in health research specific to the needs of developing countries. Without serious change to such investment, the burden of disease in developing countries is expected to grow. By 2020, 70 percent of deaths in developing countries will be caused by non-communicable diseases such as cancer.²⁰ Life expectancy in South Africa is projected to decline by as much as 20 years by 2010 as a consequence of untreated HIV/AIDS cases.²¹

Women, who comprise the vast majority of people living in poverty, are particularly vulnerable to health disparities.²² For example, more than twice as many women as men are living with HIV in sub-Saharan Africa.²³ It also bears noting that low-income women experience high fatality rates not only in developing countries, but also in developed countries, where they suffer from limited access to quality care and affordable health insurance. Breast cancer is an example of a disease that needlessly claims the lives of thousands of poor women in low- and high-income countries alike.

The Importance of Early Detection

Most low-income breast cancer patients have limited or no access to quality affordable health care, including detection procedures. As a result, around 80 percent of breast cancer patients in developing countries suffer from advanced and incurable cancers at the time of diagnosis, as do the majority of low-income patients in wealthy nations such as the United States and England.²⁴ Affordable early detection procedures, in conjunction with public awareness programs, are able to drastically reduce the stage at diagnosis, thereby improving the odds of survival.²⁵ The World Health Organization (WHO) confirms that one-third of all cancers could be cured if detected early and treated appropriately.²⁶ Research also shows that treating early stage breast cancer is

²⁰ Now, Global Forum for Health Research, <http://www.globalforumhealth.org/Site/003__The%2010%2090%20gap/001__Now.php> (8 August 2007); Abdesslam Boutayeb and Saber Boutayeb, "The burden of non communicable diseases in developing countries," *International Journal for Equity in Health* vol. 4 (2005): 1.

²¹ *The Health Crisis in Developing Countries*, June 2001, Third World Network, <<http://www.twinside.org.sg/title/twr131a.htm>> (11 July 2007).

²² *The United Nations Fourth World Conference on Women*, September 1995, the United Nations, <<http://www.un.org/womenwatch/daw/beijing/platform/poverty.htm>> (11 July 2007).

²³ *Women's Health*, Global Health Council, <http://www.globalhealth.org/view_top.php?id=225> (11 July 2007).

²⁴ *Prevention, early detection could avert a major surge in cancer deaths in the Americas*, 2007, Pan American Health Organization press release, <<http://www.paho.org/English/DD/PIN/pr070204.htm>> (8 August 2007); Jill Amlong MacKinnon; Robert C. Duncan; Youjie Huang; David J. Lee; Lora E. Fleming; Lydia Voti; Mark Rudolph; James D. Wilkinson, "Detecting an Association between Socioeconomic Status and Late Stage Breast Cancer Using Spatial Analysis and Area-Based Measures: Abstract" *Cancer Epidemiology Biomarkers & Prevention* 16 (April 1, 2007): 756-762. Accessed at <<http://cebp.aacrjournals.org/cgi/content/abstract/16/4/756>> (9 August 2007). *Women from poor backgrounds fare worse with breast cancer*, March 2007, Cancer Research UK, <<http://info.cancerresearchuk.org/news/pressreleases/2007/march/296002>> (28 June 2007).

²⁵ Robert A. Smith; Maira Caleffi; Ute-Susann Albert; Tony H.H. Chen; Stephen W. Duffy; Dido Franceschi; Lennarth Nystrom, "Breast Cancer in Limited-Resource Countries: Early Detection and Access to Care," *Breast Journal* Vol. 12. S1 (2006): S17.

²⁶ *10 facts about cancer*, 2006, the World Health Organization, <http://www.who.int/features/factfiles/cancer/10_en.html> (7 August 2007).

more cost-effective than treating late stage breast cancer, which calls for procedures ranging from advanced surgery to chemotherapy.²⁷

Studies have shown that the greatest potential for early detection of breast cancer lies in screening procedures, which test for early forms of disease before obvious symptoms such as nipple discharge occur.²⁸ Unlike those discovered when such symptoms develop, breast cancers detected during screening exams are more likely to be small and in one location. There are three early detection screening methods that have been clinically established as the most effective and reliable way to diagnose breast cancer before it has metastasized: breast self-examinations, clinical breast exams and mammography. Descriptions of each are as follows:

Breast Self-examination

Breast self-examinations (BSE) are quick and effective means of detecting palpable lumps in the breast, and are an option for women as young as 20. By examining her breasts on a monthly basis, a woman is likely to notice any changes, including dimpling, swelling and nipple discharge. Research has shown that BSE plays a small role in finding breast cancer compared with finding a breast lump by chance.²⁹

Clinical Breast Exams

Unlike BSE, clinical breast exams (CBE) are conducted by professionals trained to differentiate between normal and abnormal lumps. CBE is a promising method of detecting breast cancer in low-income areas where mammography is not readily available, or among younger women for whom annual mammography is not yet recommended. CBE also provides an opportunity for health care providers to educate women about breast cancer symptoms, risk factors and other screening procedures.³⁰ Although the efficacy of CBE alone has not yet been established, numerous health care organizations suggest that CBE be used as a complement to mammography.

Mammography

Mammography consists of a low-dose x-ray of the breast. This process can result in the detection of cancers too small to be felt by even the most skilled examiner. For example, the average size of a tumor discovered by a woman practicing BSE is 2.5 cm (1 inch). Mammography is able to detect tumors as small as 0.50 cm (1/4 inch), up to three years before the tumors are palpable and therefore less likely to have metastasized. Only mammography has proven capable of reducing breast cancer mortality in women ages 40 to 70, and women over the age of 40 are generally advised to have mammograms every year.³¹ Mammography in conjunction with clinical breast exams has proven particularly effective at achieving this goal: when these procedures are conducted together at annual exams, fewer than 5 percent of breast cancers are missed.³²

²⁷ Martijn T. Groot; Rob Baltussen; Carin A. Uyl-de Groot; Benjamin O. Anderson; Gabriel N. Hortobagyi, "Costs and Health Effects of Breast Cancer Interventions in Epidemiologically Different Regions of Africa, North America, and Asia." *Breast Journal* Vol. 12. S1 (2006): S88.

²⁸ *Rationale*, International Agency for Research on Cancer, <<http://screening.iarc.fr/>> (21 June 2007).

²⁹ *Can Breast Cancer Be Found Early*, September 2006, American Cancer Society, <http://www.cancer.org/docroot/CRI/content/CRI_2_4_3X_Can_breast_cancer_be_found_early_5.asp> (21 June 2007).

³⁰ Debbie Saslow et al, "Clinical Breast Examination: Practical Recommendations for Optimizing Performance and Reporting," *CA: A Cancer Journal for Clinicians* 54 (2004): 4.

³¹ Stephen A. Feig, "Screening mammography: a successful public health initiative" *Revista Panamericana de Salud Pública* Vol. 20 n.2-3 (2006): 125-133.

³² There is emerging evidence that breast MRI may be superior to mammography in detecting early breast cancers. However, no study has yet established a mortality benefit with breast MRI screening. The test is also expensive, often not covered by insurance, and frequently unavailable in small communities and

Unfortunately, cost and the requirement of clinical expertise (i.e. the services of technologists, radiologists and physicians) puts mammography out of reach for many low-income women and countries.³³

Barriers Confronting Women in Low-Income Countries

Although increasing access to early detection procedures would be a significant step toward reducing breast cancer fatality, the availability of screening in and of itself would not solve the problem of breast cancer fatality among women in low-income countries. According to the Breast Health Global Initiative (BHGI), barriers confronting low-income countries are five-fold: organizational obstacles; lack of recognition of cancer as a major public health issue; health care personnel shortages; loss of health care professionals to migration; and social and cultural barriers to cancer care.³⁴

Organizational obstacles frequently derive from inadequately funded and structurally challenged health care systems, which are common in developing countries. Despite the many health issues confronting these countries, only 6 percent of each country's gross national expenditure is spent on health care.³⁵ The result is a lack of trained medical personnel, insufficient funding for screening equipment and inadequate treatment facilities.³⁶

Lack of recognition of cancer consists of a vicious cycle confronting most low-income countries. As discussed earlier, in many of these countries infectious diseases such as malaria and yellow fever dominate the national health care agenda, as they have traditionally accounted for the most deaths.³⁷ Non-communicable diseases such as cancer are less recognized as national health concerns. As a result, the governments of low-income countries neglect to collect population-based data on cancer incidence and mortality. This lack of data further contributes to the extent to which breast cancer is underappreciated as an attention-worthy disease.³⁸ Even if the national government recognizes the importance of breast cancer care, poor women lacking access to education and medical facilities may be less aware of its importance and therefore unlikely to recognize symptoms or to seek treatment.

Health care personnel shortages exist in almost every low-income community in the world. Well-trained physicians, nurses and health care personnel are few in number because they do not receive adequate pay for their services in impoverished areas. Many trained medical professionals living in low-income countries migrate to wealthier communities and countries better equipped to pay for their services.³⁹ Consequently, the nurse to population ratio in high-income countries is almost eight times that in low-income countries, and in some cases the disparity is even greater.

developing countries. There is currently not enough evidence to support the replacement of mammography with breast MRI. *Early Detection and Screening: Clinical Breast Exam*, 2006, Susan G. Komen Breast Cancer Foundation, <http://www.komen.org/intradoc-cgi/ide_cgi_isapi.dll?IdeService=SS_GET_PAGE&ssDocName=EDS3-3-2> (6 July 2007).

³³ Robert A. Smith; Maira Caleffi; Ute-Susann Albert; Tony H.H. Chen; Stephen W. Duffy; Dido Franceschi; Lennarth Nystrom, "Breast Cancer in Limited-Resource Countries: Early Detection and Access to Care," *Breast Journal* Vol. 12. S1 (2006): S18, S23.

³⁴ Benjamin O. Anderson; Cheng-Har Yip; Scott D. Ramsey; Rafael Bengoa; Susan Braun; Margaret Fitch; Martijn Groot; Helene Sancho-Garnier; Vivien D. Tsu, "Breast Cancer in Limited-Resource Countries: Health Care Systems and Public Policy," *Breast Journal* Vol. 12. No. S1 (2006): S56-57.

³⁵ *Ibid.*, p. S56.

³⁶ *Ibid.*

³⁷ *Ibid.*

³⁸ *Ibid.*

³⁹ *Ibid.*, p. S57.

For example, the nurse to population ratio in North America is 10 times what it is in South America.⁴⁰

Social and cultural barriers to cancer care are often the most difficult barriers to overcome, as they consist of deeply-embedded cultural beliefs and taboos surrounding the origins and treatment of breast cancer. Such barriers may include religious beliefs prohibiting a woman from exposing her body to strangers, a sense of fatalism, fear of contagion and an inability to act without a husband's permission.⁴¹ A woman's traditional role as caregiver may also limit her ability to seek treatment for herself for any medical condition, particularly if she is a mother and cannot afford or access child care. The cultural expectation that a mother will put her family before herself is significant, and mothers with breast cancer may feel compelled to sacrifice their needs for those of their husbands and children. The influence of social and cultural issues on breast cancer patients must not be underestimated. Failure to address these obstacles can severely limit the success of any breast cancer program, regardless of whether sufficient financial resources are available for screening and treatment.⁴²

Barriers Confronting Low-Income Women in High-Income Countries

While high-income countries often have the financial resources to establish screening and treatment facilities, low-income women in these countries face a number of obstacles that severely limit their access to such care. Research has shown that they too are disproportionately diagnosed with advanced-stage breast cancers, receive insufficient treatment, and suffer higher fatality rates as a result.

Lack of affordable health insurance is a significant problem confronting many low-income women in high-income countries. As most screening and treatment procedures are expensive, the extent to which low-income breast cancer patients seek breast health care depends largely on the cost of health insurance. In the United States, more than 25 million women have no access to health care except for emergency care, and 40 million have insurance plans with "prohibitive deductibles and co-payments that de facto preclude women from using preventive services."⁴³ Even for the middle class, comprehensive health insurance in the United States is a luxury rather than a guarantee.⁴⁴

Lack of awareness of breast cancer is also a significant problem among low-income women in high-income countries. It is frequently exacerbated by language barriers, illiteracy, and lack of access to health care education. Language barriers present a considerable obstacle to obtaining treatment of breast cancer, since women who do not speak a country's language cannot communicate with medical personnel or insurance companies about their condition and needs. In addition, immigrants whose native countries do not consider breast cancer a national health concern may be unaware of or misinformed about the nature of breast cancer, and may pass this lack of awareness on to their relatives and family members. As in low-income countries, ethnic

⁴⁰ Ibid, p. S56.

⁴¹ Robert A. Smith; Maira Caleffi; Ute-Susann Albert; Tony H.H. Chen; Stephen W. Duffy; Dido Franceschi; Lennarth Nystrom, "Breast Cancer in Limited-Resource Countries: Early Detection and Access to Care," *Breast Journal* Vol. 12. S1 (2006): S22.

⁴² Ibid; Benjamin O. Anderson; Cheng-Har Yip; Scott D. Ramsey; Rafael Bengoa; Susan Braun; Margaret Fitch; Martijn Groot; Helene Sancho-Garnier; Vivien D. Tsu, "Breast Cancer in Limited-Resource Countries: Health Care Systems and Public Policy," *Breast Journal* Vol. 12. No. S1 (2006): S57.

⁴³ Larissa Remennick, "The Challenge of Early Breast Cancer Detection among Immigrant and Minority Women in Multicultural Societies," *Breast Journal* Vol. 12. S1 (2006): S104.

⁴⁴ Stephanie Strom, "For Middle Class, Health Insurance Becomes a Luxury," *New York Times*, 16 November 2003.

and cultural traditions and taboos may also prohibit immigrant women who are aware of breast cancer from seeking medical care.

Access to Care is frequently limited for low-income women. Even if they are aware of breast cancer, many do not have the financial means or time to travel to distant facilities that offer advanced treatment options and well-trained physicians. Time off from work and the money needed to pay for childcare are serious considerations for these women, particularly those who require long-term treatment and multiple visits to the hospital. . In Egypt, for example, mammograms cost about \$50, a month's income for many women. Even in Japan, by no means a developing nation, cost is a barrier. As of 2005, only 7 percent of women followed the Ministry of Health, Labour and Welfare's introduction of mammography for all women over 50. The price for a single machine is about \$262,000 and a mammogram generally costs a woman about \$90 out of her own pocket.⁴⁵ In addition, a 2008 study from the American Cancer Society found that in the U.S., breast cancer death rates among African American women are either flat or rising in at least half the states. Access to and utilization of screening as well as regional variations in the quality and timeliness of treatment likely play important roles in the disparity. The study urges States to increase health awareness within underserved communities and ensure that all women have access to high-quality early detection and treatment services.⁴⁶

Unequal treatment of low-income and high-income women has been documented. A study published in the January 20, 2007 issue of the *Journal of Clinical Oncology* found that low-income women in the United States are disproportionately given insufficient chemotherapy doses: almost 20 percent of study participants living in the poorest ZIP codes got reduced doses, compared to 8 percent of those living in the richest. Researchers suggested that physicians had anticipated a failure among low-income women to understand and maintain the expensive and lengthy treatment.⁴⁷ Disparities in treatment by income are not limited to the United States. A study published in March 2007 by Cancer Research UK found that 40 percent of wealthier patients had lumpectomies, which allow breast conservation, rather than full mastectomies. Only 31 percent of the low-income women received lumpectomies. In addition, more than 22 percent of low-income women did not receive any surgery, as compared to only 13 percent of high-income women. Low-income women were also less likely to receive radiotherapy.⁴⁸ Researchers concluded that the long-term cost of lumpectomies and radiotherapy made these procedures inaccessible to low-income women

Taking Action

Because women with advanced breast cancer have the poorest chance of survival, efforts aimed at raising awareness of breast cancer, in conjunction with providing affordable early detection procedures, is most likely to have the greatest overall benefit in terms of breast cancer control among low-income women worldwide.⁴⁹

⁴⁵ Kathleen Kingsbury, "The Changing Face of Breast Cancer," *Time Magazine*, October 15, 2007, http://www.time.com/time/specials/2007/article/0,28804,1666089_1666563_1668477,00.html

⁴⁶ "Breast Cancer Death Rates Among Black Women Not Decreasing Across All States," *ScienceDaily*, Feb. 28, 2008. www.sciencedaily.com/releases/2008/02/080228122229.htm

⁴⁷ Nicholas Bakalar, "All Breast Cancer Patients are Not Treated the Same," *New York Times*, 23 January 2007.

⁴⁸ *Women from poor backgrounds fare worse with breast cancer*, March 2007, Cancer Research UK, <<http://info.cancerresearchuk.org/news/pressreleases/2007/march/296002>> (28 June 2007).

⁴⁹ *Report Brief: Opportunities for controlling cancer in low- and middle-income countries*, February 2007, the Institute of Medicine,

To raise awareness of health issues such as breast cancer and provide all low-income women with quality health care, the World Health Organization argues that a drastic reorganization of health care systems is needed in low-income countries: “An initial priority...should be the development of national diagnostic and treatment guidelines to establish a minimum standard of care, and promote the rational use of existing resources and greater equity in access to treatment services.”⁵⁰ Since many medical procedures related to breast cancer (for example mammography and breast MRIs) require sophisticated technology and medical expertise, the WHO also recommends that federally funded medical facilities initially be placed in only a few locations per country to optimize resources. Of course, doing so would seriously limit access to care for women in rural communities.⁵¹ Some low-income countries may only be able to develop basic systems of health care, which could mean raising awareness of breast cancer and emphasizing the need for breast self-examination and clinical examination. Countries with more financial resources could develop enhanced systems, which could translate into an emphasis on mammography screening and chemotherapy treatment for advanced-stage patients.

However, the panel of experts participating in the 2005 Breast Health Global Initiative reiterated that a national plan is rarely sufficient for changing the lives of all low-income breast cancer patients, particularly those in high-income countries. As some of the greatest barriers confronting low-income women in both low and high-income countries include cultural and ethnic traditions and distance from treatment facilities, individual communities also need the development of programs specific to their socioeconomic situation.⁵² The development of cancer centers in low-income communities could be one way to reduce the cost and time required to undergo breast cancer screening.

The Role of Non-Governmental Organizations (NGOs)

Non-governmental organizations (NGOs) and international organizations can play an important role in raising awareness of breast cancer and providing funding for screening and treatment. Unlike governments, NGOs are not bound by competing health priorities, nor are they politically motivated. They can freely lobby governments, raise public awareness, and promote research on a specific disease. The International Union against Cancer (UICC) is currently the only international non-governmental organization dedicated exclusively to the global control of cancer, and can serve as an example to others interested in decreasing breast cancer fatality rates among low-income women. The UICC seeks to:

- identify and promote training in epidemiology and cancer registration
- promote cost-effective and sustainable prevention and early detection strategies to bring about policy changes at the country level
- establish networks of professionals and experts engaged in prevention and early detection at local, regional and global levels to foster information sharing, skill transfer and policy development, such as cancer control planning.⁵³

<<http://www.iom.edu/Object.File/Master/40/213/Cancer%20control%20report%20brief.pdf>> (7 August 2007).

⁵⁰ Alexandra Eniu; Robert W. Carlson; Zeba Aziz; Jose Bines; Gabriel N. Hortobagyi; Nuran Senel Bese; Richard R. Love; Bhadrasain Vikram; Arun Kurkure; Benjamin O. Anderson, “Breast Cancer in Limited-Resource Countries: Treatment and Allocation of Resources,” *Breast Journal* Vol. 12. No. S1 (2006): S45.

⁵¹ Ibid.

⁵² Ibid.

⁵³ *Cancer Prevention and Control*, 2004, The International Union against Cancer, <<http://www.uicc.org/index.php?id=509&L=0>> (22 June 2007).

The UICC has devoted numerous projects specifically to aiding low-income cancer patients. The 2005 *My Child Matters* initiative sponsored 12 such projects in Bolivia, Indonesia, Kenya, Mali, Peru and Romania. The UICC is also committed to aiding female cancer patients, such as by supporting the disbursement of human papilloma virus (HPV) vaccinations around the world, thus reducing and ultimately eliminating cervical cancer. The UICC also participates in the Breast Health Global Initiative (BHGI), an international network of government agencies, healthcare organizations, NGOs, policy-makers and advocates working to develop and implement appropriate guidelines for low- and middle-income countries (LMCs) in order to improve breast health outcomes in these areas.⁵⁴

In addition, grass roots initiatives are springing up in many countries where breast cancer was rarely discussed. In Egypt, religious leaders have been speaking out in favor of breast-cancer awareness and screening making it clear to husbands that their wives must be examined regularly, by male doctors if needed. In Hungary, where every woman from 45 to 65 now gets a free annual mammogram, with travel costs covered, breast cancer has dropped from first place to third as a cause of death among women.⁵⁵

Clearly, breast cancer is only one of countless health issues impacting low-income women worldwide. Without the aid of government and NGOs, these women will continue to lose their lives to a number of highly treatable and/or curable diseases. What is arguably most needed is not just an increase in funding, but rather a change in perspective: quality affordable health care must be viewed and treated as a fundamental human right to which every woman on earth is entitled. Furthermore, it is also necessary to raise the status of women in many countries in order for their rights to be considered human rights. Cultural biases often relegate the needs of women to a lower level of importance than men's needs. A shift in perspective, about women's rights and the right to access health care, would be a drastic step toward improving the lives of low-income women worldwide.

Soroptimist Working to Help Low-Income Breast Cancer Patients

Soroptimist International of the Americas is an international volunteer organization for business and professional women who work to improve the lives of women and girls, in local communities and throughout the world. Almost 100,000 Soroptimists in roughly 120 countries and territories contribute time and financial support to community-based and international projects benefiting women and girls, including programs that address women with breast cancer. In its model program kit *Early Detection of Breast Cancer*, Soroptimist offers its clubs and members information about breast cancer and step-by-step instructions on a local-level project to provide free mammography to poor women. In addition, Soroptimist offers funds for club projects through the Soroptimist Club Grants for Women and Girls program.

Women's Opportunity Awards

The Women's Opportunity Awards program is Soroptimist's major program. The awards improve the lives of women by giving them the resources they need to improve their education, skills, and employment prospects. By helping women receive skill and resource training, Soroptimist provides women with the resources that they need to get a better job—jobs that will afford women health insurance or the resources to access health care. Many Women's

⁵⁴ *The Breast Health Global Initiative*, 2004, the International Union against Cancer, <<http://www.uicc.org/index.php?id=1254>> (11 July 2007).

⁵⁵ Kathleen Kingsbury, "The Changing Face of Breast Cancer," *Time Magazine*, October 15, 2007, http://www.time.com/time/specials/2007/article/0,28804,1666089_1666563_1668477,00.html

Opportunity Award recipients have overcome enormous obstacles in their quest for a better life, including poverty, domestic violence, substance abuse, and in some cases, trafficking. Each year, more than \$1 million is disbursed through the awards at various levels of the organization to help women achieve their dreams of a better life for themselves and their families. Since the Women's Opportunity Awards program began in 1972, it is estimated that \$20 million has been disbursed and more than 22,500 women have been assisted. In 2007, the Women's Opportunity Awards received the *Associations Advance America Summit Award*—ASAE & The Center for Association Leadership's highest level of recognition.

Soroptimist Club Grants for Women and Girls

Soroptimist Club Grants for Women and Girls are given annually to Soroptimist clubs initiating or continuing innovative projects benefiting women and girls. Grants range anywhere between \$500 and \$10,000. Since 1997, more than \$1.4 million has been disbursed to 228 Soroptimist club projects, and more than 100,000 women and families have benefited from these projects. Recent projects include providing resources for immigrant women fleeing domestic violence; funding a micro-enterprise artisan project for low-income women; providing reproductive health services for women in poverty; and teaching marketable job skills to girls with disabilities. The program is the recipient of an Award of Excellence from the American Society of Association Executives' Associations Advance America designation. Many clubs have used their grants to help prevent and treat breast cancer in low-income women. For example, in August 2006, SI/Takamatsu, Middle Kagawa and Tosan, Japan, received a \$10,000 Soroptimist Club Grant for Women and Girls to implement a project titled *Mammography Saves Lives!* The project offered free mammograms to 300 low-income women, and by doing so raised awareness of the importance of mammography and early detection. The grant was renewed in 2007.

Club Projects

Many Soroptimist clubs conduct community projects to help prevent and end breast cancer among local women:

SI/Cody, Wyoming, USA: In March 2006, SI/Cody hosted an annual wine tasting party titled "More Bras for a Cause." For the third year, the club sold bras decorated by local artists and businesses at live and silent auctions. Other silent auction items were gathered from local merchants. The goal of the event was to increase breast cancer awareness and funds for research and prevention programs.

SI/Groveland, California, USA: In October 2006, SI/Groveland combined efforts with the American Cancer Society, Sonora Regional Medical Center, California Department of Health Services and local businesses to implement a breast cancer awareness project titled *Think Pink*. During this one-day event the club distributed pink carnations and *Think Pink* bags containing information on breast cancer and resources for screening and treatment. Club members also distributed the bags to women working in local businesses.

SI/Lake Arrowhead, California, USA: In October 2006, SI/Lake Arrowhead conducted a project titled *Mammogram Program* for the third consecutive year. The club partnered with Mountains Community Hospital, which donated discounted mammograms. SI/Lake Arrowhead paid the remaining amount, and provided the mammograms free of charge to uninsured women over 30 throughout the month of October, National Breast Cancer Awareness month. Eligibility forms and a screening process for applicants were instituted in 2006.

SI/Mountain Morning, Arizona, USA: In February 2007, SI/Mountain Morning partnered with the North Country Community Health Center to participate in the Pink Ribbon Campaign for

Breast Cancer Awareness. The club ordered information cards from a printing company, assembled pink ribbons on the cards, and distributed them at local events including the annual Homecoming Day football game at Northern Arizona University. At this event, SI/ Mountain Morning set up two tables with posters, pamphlets, and free mammogram and pap screen information. The club passed out 2,000 ribbons, and all monetary donations collected were forwarded to the local American Cancer Society.

SI/Red Bluff, California, USA: In September and October 2006, SI/Red Bluff partnered with the local hospital to raise breast cancer awareness and funding in a project titled *Crush Out Breast Cancer*. SI/Red Bluff provided pink ice cream cones at a monster truck signing in the Imaging Center parking lot, and also helped pass out pink bracelets at a Monster Truck Performance. The club earned over \$8,500, which they donated to the Nanci L. Johnson Breast Cancer Fund to purchase diagnostic equipment.