Improving breast health
Bringing early detection and care to women in low-resource settings

Over the past 15 years, PATH has worked in low- and middle-income countries—including Ghana, Peru, Rwanda, and Ukraine—to evaluate and strengthen breast cancer early detection, diagnosis, treatment, and recovery. Using our technical capacity, country presence, and extensive global and in-country networks, we pursue culturally appropriate programmatic and technological innovations to extend survival and improve quality of life. We focus on identifying approaches and technologies that are feasible, effective, and affordable in low-resource contexts, and we envision a continuous model of care that connects health care delivery (early detection, diagnosis, and treatment) with public participation (awareness, survival, and advocacy).

A critical goal is to bring early detection, diagnostic, and treatment services closer to where women live and develop models of care that can be replicated in resource-challenged settings. PATH’s recognition that breast cancer extends beyond a biomedical model to one that involves a substantial and often unrecognized set of psychosocial and practical needs has also led us to support in-country advocacy, survivor movements, support groups, and patient navigation programs.

GLOBAL CONTEXT

Breast cancer incidence continues to rise steadily in many low- and middle-income countries as women live longer and lifestyles change in ways that increase risk factors for the disease. Breast cancer is now the most common cancer in women in the world, with an estimated 1.7 million new breast cancer cases occurring in 2012 (25.2 percent of all cancers in women) and a significantly higher incidence rate (43.3 per 100,000) than any other cancer, including those affecting men. More than 520,000 women die every year from breast cancer, and it is the most common
cause of cancer death among women in most parts of the world, including Latin America and Africa. The majority of Asian and Latin American nations and some countries of Africa are now seeing breast cancer mortality figures exceed mortality from pregnancy-related complications.\textsuperscript{2,3}

Further, mortality rates in low- and middle-income countries are disproportionately high relative to incidence when compared to wealthier countries. While a woman who develops breast cancer in the United States or United Kingdom has approximately an 85 percent chance of 5-year survival, the survival rate for women in poor countries is closer to 25 percent or less, largely because of late detection.\textsuperscript{4} As with many other diseases, the burden falls most heavily on poor, marginalized, and rural women due to their unequal access to screening and treatment.

\section*{WHAT CAN BE DONE?}

The importance of early detection of breast cancer is well recognized, since both the success and cost of treatment are directly related to the stage of disease at the time of diagnosis. Affordable early detection, diagnostic and treatment options, and resource-appropriate guidelines offer new opportunities to reach underserved populations with lifesaving approaches that are effective and sustainable. Engaging communities in supporting women to seek age-appropriate breast cancer screening, act on suspicious symptoms, and follow through with early treatment, as well as providing psychosocial and navigational support during treatment and afterward, has been shown to be critical to treatment success, survivorship, and quality of life. Providing palliative care, if necessary, is also important in improving quality of life for breast cancer patients and, together with public health messaging, may help diminish fear and stigma around cancer.

In conjunction with colleagues from the Breast Health Global Initiative (BHGI), and using the BHGI guidelines as a planning tool, we have worked to increase the effectiveness and efficacy of screening efforts by targeting interventions and resources to where they may have the greatest effect.

\section*{EXISTING TECHNOLOGIES AND APPROACHES}

PATH projects focus on utilizing current and new approaches and technologies that are feasible given the resources available locally. Our work has ranged from evaluating a cost-effective mammography screening approach in Ukraine (to allow the greatest amount of coverage given limited imaging resources) to increasing midwives’ effective use of clinical breast exam (CBE) in primary care centers in both Ukraine and Peru.

Various existing clinical tools are being evaluated in the context of early detection, such as the use of ultrasound and fine needle aspiration biopsy to provide differential detection for women with an abnormal CBE finding. Additionally, PATH continues to seek novel ways to modify existing cancer-care technologies, such as assays to determine hormone receptor status.

\section*{PSYCHOSOCIAL SUPPORT}

Based on patients’ expressed desire to have more information on their illness, diagnosis, and subsequent treatment interventions, PATH’s program in Ukraine supported the development of informational materials, including booklets, brochures, and leaflets to fill this gap and assuage some of the stresses faced by patients and their families. These materials were not only provided to patients, but also to care providers and the

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PATH’S VISION FOR REDUCING THE IMPACT OF BREAST CANCER IN LOW- AND MIDDLE-INCOME COUNTRIES & \\
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Improve quality of life and extend the survival of women diagnosed with breast cancer by identifying approaches and technologies for early detection, diagnosis, treatment, and recovery that are feasible, effective, and affordable in a variety of settings. & \\
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Focus on more efficient use of existing resources to achieve earlier detection and better survival. & Decentralize services for greater access, emphasizing the continuum of care. & Engage women and communities in gaining knowledge about the importance of early detection and developing supportive programs for patients and families. \\
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Pursue technology innovations to improve access & \\
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Ministry of Health as resources to better manage and improve patient care. As a result, collaboration and information sharing increased between survivor groups and medical professionals, shrinking the gap between clinicians and patients and reducing the concomitant stresses affected women faced. Similar materials and teaching curricula have been developed in Peru to train nurses and community volunteers to provide support to patients and their families, while helping them navigate the public cancer system in Peru.

COMMUNITY MOBILIZATION AND ADVOCACY

Improving public awareness of cancer remains a key focus of PATH’s work, from the development of educational materials for the public to the development of a survivor support and outreach network to enable survivors to become advocates and formal or informal educators within their communities. In designing culturally relevant training, education, outreach, and peer support strategies for women, families, and communities, PATH has prioritized women’s perceptions of health services and breast care, taking as a starting point their voiced experience and suggestions.

A CLOSER LOOK: LA LIBERTAD, PERU

Since 2011, PATH has collaborated with our Peruvian partners to implement a community-based program for breast health. The work is located in the northern region of La Libertad, where a regional cancer center has been established in the main city of Trujillo. The goal of this partnership has been to establish and strengthen feasible, evidence-based strategies at the community level to reduce the growing burden of breast cancer, and then scale them to national level through a partnership with Peru’s National Cancer Institute (INEN).

PATH first worked with local partners to design community mobilization and education strategies and curricula, while simultaneously strengthening clinical skills at the health center level. Professional midwives offer CBE and refer women with suspected masses to the local hospital for evaluation by trained physicians using ultrasound and fine-needle aspiration (FNA) biopsy as a triage approach. Those women with suspected cancer are then referred to the Regional Cancer Institute for confirmatory diagnosis and treatment as needed (surgery, radiotherapy, systemic therapy, and palliation). In future PATH would also add training for district-level physicians to provide follow-up management after treatment. This approach provides as much care as possible at the health level closest to the
PATIENT NAVIGATION

Women diagnosed with breast cancer still face many challenges in navigating the health care system and are particularly vulnerable to dropping out of the system at some point between undergoing screening and triage, receiving their results, and pursuing treatment. PATH has worked closely with community and clinical care representatives in La Libertad and Lima, Peru, to develop a model of “patient navigation” for breast cancer patients, with the goal of ensuring better access to and completion of diagnostic, treatment, and rehabilitation services. The concept of patient navigation has been utilized in low-resource populations in many locations to enhance access to care and PATH has drawn on the experience of other countries and organizations to develop an evidence-based program that is now being scaled up at national level through INEN.

POLICY AND PRACTICE GUIDELINES

In Peru, efforts to provide a new, decentralized model for breast health have shown the importance of CBE for detecting palpable breast tumors where mammography is not readily accessible. A joint agreement among our Peruvian partner institutions to expand this model of care to other regions indicates a shift in national policies for early detection.

STRENGTHENING HEALTH SYSTEMS

To ensure sustainability and to ultimately improve patient care, PATH’s efforts to strengthen health systems focus on a holistic continuum of care. We address critical issues such as incorporating breast health indicators in the national health information system, developing measures of quality of care for program monitoring, creating tools for supportive supervision, and identifying potential financing mechanisms for essential breast health services. We also have made specific inroads into strengthening patient data tracking systems by helping improve cancer registries and incorporating key variables for breast care services in health information systems. INEN is now developing a School of Excellence for the Prevention of Breast Cancer within the institute to ensure national capacity for expanding the care model throughout the country.

A CLOSER LOOK: UKRAINE TEN YEARS LATER

An evaluation conducted in 2011, ten years following the completion of the Ukraine Breast Cancer Assistance Project, found that mammography and CBE training for medical professionals, from technicians to nurses and radiologists, continued to be based on curricula developed by PATH in the initial project. Officials have expanded CBE training to include nurse practitioners and midwives as well. In addition, a survivor movement initiated under the project has blossomed into a national federation of breast cancer survivors represented by 22 chapters in the country.

CONTACT DETAILS

For more information on PATH’s breast cancer work, visit the program website at: sites.path.org/rh/recent-reproductive-health-projects/improving-breast-health/ or send us an email at vtsu@path.org.

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REFERENCES


Cover photo: PATH/Tara Hayes Constant

PATH is the leader in global health innovation. An international nonprofit organization, we save lives and improve health, especially among women and children. We accelerate innovation across five platforms—vaccines, drugs, diagnostics, devices, and system and service innovations—that harness our entrepreneurial insight, scientific and public health expertise, and passion for health equity. By mobilizing partners around the world, we take innovation to scale, working alongside countries primarily in Africa and Asia to tackle their greatest health needs. Together, we deliver measurable results that disrupt the cycle of poor health. Learn more at www.path.org.