

Forming a Hospital Cancer Registry in West Africa During the Ebola Era

Rebecca Cassady, RHIA, CTR^{1,2} and John W. Morgan, DrPH, CPH^{2,3}

¹Loma Linda University Cancer Center, ²Cancer Registry of Greater California, ³Loma Linda University

In September 2014, amidst fears of an impending Ebola outbreak, Becky Cassady, RHIA, CTR, Director, Region 5 of the SEER Cancer Registry of Greater California (CRGC) and John W. Morgan, DrPH, Professor of Epidemiology at Loma Linda University and Cancer Epidemiologist for Regions 4 & 5 of the CRGC, traveled to Ghana, West Africa, to assist in establishing a breast cancer registry in a private hospital (Peace and Love Hospital). The Peace and Love Hospital in Kumasi, the second largest city in Ghana, was established in October 2002 for diagnosis and treatment of breast cancer. Since it was founded, 1,301 breast cancer patients have received diagnosis or care at the Peace and Love Hospital.

Breast cancer is the leading cancer diagnosed in Ghana with an estimated 70% of cases diagnosed at advanced stages. Late diagnosis of breast cancer in Ghana is substantially the consequence of limited availability of mammographic screening and diagnostic services, limited availability to clinical breast exam technology and limited access to fine needle aspirate (FNA), biopsy and microscopic pathology services. In addition to these barriers to breast cancer early diagnosis, widespread reliance on mystical beliefs, herbal remedies and recent fears about contracting Ebola in hospitals also present barriers to treatment of breast cancer following diagnosis. While no Ebola cases have been confirmed in Ghana, the tragedy of fungating (gangrenous) breast cancer resulting from ulcerating tumors is prevalent. Olfactory cues to the tragedy of gangrenous fungation permeate examination rooms where these patients receive diagnostic and palliative care.



In response to an invitation from the Director of the Peace and Love Hospital, Becky Cassady travelled to Kumasi, Ghana, assisting in installation and training in the use of abstracting software (SEERAbs), with the remaining time allocated to cancer registration training sessions for the three hospital staff assigned to the fledgling

cancer registry. During the same time-period, Dr. John Morgan was invited to travel approximately 200 miles south east of Kumasi with the Peace and Love Hospital team to the Volta Region of Ghana, near the border with Togo, where he served as a public health ambassador advocating the importance of breast cancer early detection and treatment. After gaining support from the Regional Tribal Chief, the Peace and Love team invited middle-age and older women to participate in breast self-examination training and to receive clinical breast exams. During this four day excursion, approximately 1,000 no-charge clinical breast examinations were performed by the team in this remote and underserved region of Ghana. This labor intensive process was directed by a breast Surgical Oncologist and founder of the Peace and Love Hospital, Dr. Beatrice Wiafe-Addai, who was assisted by approximately 50 specially trained “nursing” staff and dozens of breast cancer survivors who served as volunteers. After evaluation by Dr. Wiafe-Addai, several dozen women having masses suspicious for breast cancer received written prescriptions for follow-up diagnostic mammograms, FNAs or biopsies intended to identify earlier stage breast cancer. The expectation was that this process would identify between six and a dozen patients having early stage breast cancers that would, ultimately, receive care at the Peace and Love Hospital.

Volta Region Tribal Chief (in Silver) and Dr. Beatrice Wiafe-Addai (dressed in pink)



In addition to discovery of breast masses, this breast tumor safari identified several dozen overt breast lesions characterized by ulcerations and fungation, with these patients directed for diagnosis and follow-up care. Like this trip to the Volta Region, Peace and Love Hospital-staff conduct monthly expeditions, searching for early-stage breast cancers in other remote regions of Ghana.



During the past three years, Peace and Love Hospital, together with two other hospitals, has collaborated in the NCI supported, Ghanaian Breast Health Study that funds breast tumor biopsy, microscopic pathology and collection of biological specimens. This funding provides estrogen and progesterone receptor status and Her-2-Neu findings for breast biopsy specimens for patients diagnosed with breast cancer. To date, the Peace and Love Hospital has enrolled 750 (more than half) of the breast cancer patients in the Ghanaian Breast Health Study and is slated to enroll the remaining 350 patients during the next two years. Combined with information from the newly formed cancer registry, these data will be used by staff at Peace and Love Hospital, Loma Linda University School of Public Health and Region 5 of the CRGC to evaluate and seek to improve breast cancer control strategies in Ghana and beyond.

Every member of the Peace and Love Hospital staff is aware that if Ebola arrives in Ghana, hospitals staff will be among the first to have contact with infected patients and that surgical hospital staff experience exquisitely high potential for exposure to body fluids. In spite of concerns about Ebola, staff members in this small private hospital continue to conduct tumor safaris into remote and underserved regions of Ghana, where Ebola could be lurking. In the words of Dr. Wiafe-Addai, "*the threat of Ebola is theoretical, while the opportunity to prevent deaths from breast cancer is real.*" Both Becky Cassady and Dr. John Morgan express their thanks for the work of Dr. Wiafe-Addai and staff in the Peace and Love Hospital, and for the opportunity to contribute to their work in breast cancer control in Ghana.