

Prevalence of Breast Masses and Barriers to Care: Results from a Population-Based Survey in Rwanda and Sierra Leone

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Background and Objectives: Breast cancer incidence may be increasing in low- and middle-income countries (LMIC). This study estimates the prevalence of breast masses in Rwanda (RW) and Sierra Leone (SL) and identifies barriers to care for women with breast masses. only.

Methods: Data were collected from households in RW and SL using Surgeons Overseas Assessment of Surgical Need (SOSAS), a cross-sectional, randomized, cluster-based population survey designed to identify surgical conditions. Data regarding breast masses and barriers to care in women with breast masses were analyzed.

Results: 3,469 households (1,626 RW; 1,843 SL) were surveyed and 6,820 persons (3,175 RW; 3,645 SL) interviewed. Breast mass prevalence was 3.3% (SL) and 4.6% (RW). Overall, 93.8% of masses were in women, with 49.1% (SL) and 86.1% (RW) in women >30 years. 73.7% (SL) and 92.4% (RW) of women reported no disability; this was their primary reason for not seeking medical attention. Overall, 36.8% of women who reported masses consulted traditional healers only.

Conclusions: For women in RW and SL, minimal education, poverty, and reliance on traditional healers are barriers to medical care for breast masses. Public health programs to increase awareness and decrease barriers are necessary to lower breast cancer mortality rates in low- and middle-income countries (LMIC).

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INTRODUCTION

The prevalence of breast cancer in developing countries is not known. However, the incidence may be rising sharply due to lifestyle changes, reproductive factors, and increased life expectancy [1]. In addition to Westernization of lifestyle, the seeming increase in incidence may be related to past underdiagnosis, a situation that is now only beginning to be alleviated through early efforts that heighten public awareness of breast cancer as a health issue. Breast cancer is a leading cause of cancer-related mortality among women in developing countries as well as in the developed world [2]. Case fatality rates are, however, higher in low- and middle-income countries (LMICs) than in high-income countries (HICs). This disparity in outcomes may be due to a lack of awareness of the benefits of early detection; a scarcity of adequate facilities for screening, diagnosis, and treatment; poor access to primary health care; and shortages in skilled personnel [3].

In Sub-Saharan Africa, studies on breast cancer epidemiology or outcomes are small and retrospective hospital-based reports. These studies report an increase in breast cancer incidence, along with late-stage presentation, poor prognosis, and low survival rates [4–7]. In Rwanda (East Africa) and Sierra Leone (West Africa), health policy makers are working to improve access to primary health care as well as to modern medical technologies such as mammography, CT, MRI, advanced surgical procedures, and adjuvant therapies [8].

Data indicate that breast cancer survival rates improved in the United States in the early 1970s, a period that pre-dates widespread

use of the technologies mentioned above. Authors who analyzed data from prior to 1975 attributed this improvement in survival rates to more effective breast education programs, increased breast cancer awareness, increased detection of tumors palpable with self or clinical examination, and better diagnostics [3,9,10]. Thus, while it is important to increase access to advanced technologies in the developing world, these patients' survival rates may be more immediately improved by intensifying the awareness of breast cancer and promoting the benefits of early treatment. The objective of this study was to estimate the prevalence of untreated breast masses in the general populations of Rwanda and Sierra Leone and, further, to identify and compare barriers to medical treatment for women with breast masses in these two low-income countries (LICs).

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