Out-of-pocket expenses incurred by patients obtaining free breast cancer care in Haiti: A pilot study

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Background. *Women in low- and middle-income countries account for 51% of breast cancer cases globally. These patients often delay seeking care and, therefore, present with advanced disease, partly because of fear of catastrophic health care expenses. Although there have been efforts to make health care affordable in low- and middle-income countries, the financial burden of out-of-pocket (OOP) expenses for nonmedical costs, such as transportation and lost wages, often is overlooked.*

Methods. *An institutional review board exemption was granted from Boston Children's Hospital and Partners in Health/Zanmi Lasante for this cross-sectional study. In total, 61 patients receiving breast cancer care free of charge at Hôpital Universitaire de Mirebalais (HUM) in Haiti were selected via convenience sampling. They were interviewed between March and May 2014 to quantify the expenses they incurred during the course of diagnosis and treatment. These expenses included medical costs at outside facilities, as well as nonmedical costs (eg, transportation, meals, etc).*

Results. *The median, nonmedical OOP expenses incurred by breast cancer patients at HUM were $233 (95% confidence interval [95% CI] $170–304) for diagnostic visits, $259 (95% CI $200–533) for chemotherapy visits, and $38 (95% CI $23–140) for surgery visits. The median total OOP expense (including medical costs) was $717 (95% CI $619–1,171). To pay for these expenses, 52% of participants stated that they went into debt; however, the amount of debt was not quantified. The median income of these patients was $1,333 (95% CI $778–2,640), and the median sum of OOP expenses and lost wages was $2,996 (95% CI $1,676–5,179).*

Conclusion. *Despite receiving free care: at HUM, more than two-thirds of participants met conservative criteria for catastrophic medical expenses (defined as spending more than 40% of their potential household income on OOP payments). Further studies are needed to understand the magnitude of OOP health care expenses for the poor worldwide, how to aid them during their treatment program, and its impact on their health outcomes. (Surgery 2015;158:747-55.)*

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Health expenditures are catastrophic financially for many families throughout the world.[1,2] In the last 20 years, this phenomenon has become more apparent in low- and middle-income countries (LMICs) as health care has become available more widely. Families are being driven into poverty

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by out-of-pocket (OOP) expenses related to medical care.[1,3,4] There also is evidence that the nonmedical costs of seeking care (eg, lost wages, transportation, food, and accommodation) can exceed medical costs by 2–3.6 times in LMICs.[1,5-9] As noncommunicable diseases such as cancer that require surgical intervention become more prevalent and recognized more commonly in LMICs, the need to address the real costs of health care will become even more critical. Research evaluating the burden of OOP expenses related to oncology care in LMICs, however, is lacking.[1,10]

The global incidence of breast cancer is greater than any other cancer.[11] In LMICs, two-thirds of breast cancer diagnoses are among women who are younger than 55 years of age, a substantial portion of whom are still of child-bearing age.[12] Furthermore, patients with breast cancer in LMICs often present with advanced disease that portends a poor prognosis. In sub-Saharan Africa, it has been reported that 90% of patients with breast cancer have stage III or IV disease at the time of presentation.[2] One important factor contributing to the delay in presentation is the actual personal financial burden of seeking treatment.[13-19] In Haiti, where 58.8% of the population lives on less than $1 per day, OOP health expenditures can be a realistic hardship and a barrier to seeking care.[19-21]

Hôpital Universitaire de Mirebalais (HUM) in Mirebalais, Haiti, is a teaching hospital affiliated with both Partners in Health/Zanmi Lasante and the Haitian government. In accord with its mission to provide a "preferential option for the poor," services are provided "free of charge" after payment of a one-time registration fee of approximately $1. Although the free care provided by HUM has improved access to health services for the country's poorest, there are additional barriers patients must overcome.[19] Many patients incurred medical expenses at outside facilities near their homes before they decided to travel to HUM. At HUM, patients are not charged physician fees or for supplies and equipment, but they are still burdened by the nonmedical costs of accessing and completing their health care. These expenses include transportation, lodging, and food expenses while traveling to the hospital.

Thus, even "free" health care may not be affordable for some of the most impoverished people in Haiti. We hypothesized that these costs may be catastrophic financially for patients and their families, and therefore, our aim was to identify and quantify the expenditures of patients seeking breast cancer care at HUM.

METHODS

Institutional research board exemption was granted from Boston Children's Hospital and Partners in Health/Zanmi Lasante for this cross-sectional study. Participants were selected by convenience sampling[22] of all patients coming to the breast cancer center at the hospital for diagnosis, chemotherapy, or surgery during days when the research assistant was available to conduct interviews.

HUM, a university hospital that provides free health care in Mirebalais, Haiti, was the site chosen for the study. The hospital's primary catchment area is the city of Mirebalais and the surrounding rural districts within Haiti's Central Plateau; patients also travel from across the country to receive specialized care at HUM.

From March to May 2014, K.M.O. interviewed 63 patients in Haitian Creole. K.M.O. is fluent in Haitian Creole and has received formal training in medical translation. Participants were asked about expenses associated with coming to the hospital during different points along the treatment cycle: (1) diagnostic visits, (2) chemotherapy visits (pre- and postsurgery), and (3) surgical visits. The amounts were recorded in either gourdes (gdes) or Haitian dollars (HD) and then converted to US dollars (USD) by use of the exchange rate 45 gdes/1 USD and 5 gdes/1 HD. The questionnaire was based on a previous survey tool designed to assess demographics and expenditures related to surgery.[23] Participants were queried about demographics (age, sex, place of origin, family size, education level), socioeconomics (employment, salary, how they pay for medical care), and financial burden of the health care related to breast cancer. In addition to recording the survey data, we also collected personal narratives offered by the participants about how their financial hardships affected their lives. Responses were written on a paper questionnaire and then translated to English and recorded into RedCap by KMO. One interview was discarded due to incomplete data and another discarded as a duplicate; therefore, 61 interviews were included in the analysis.

Participants were asked to recall both their medical costs and nonmedical costs related to the hospital visit coinciding with the interview. Nonmedical costs were composed of expenses related to food and travel. The value for nonmedical costs was multiplied by the number of visits reported by the participant for each applicable appointment type: diagnostic, chemotherapeutic, and surgical. The standard 8 cycles of chemotherapy was assumed for patients who did not know the number of chemotherapy sessions planned for them (64% of interviewees).