

Prevalence and Capacity of Cancer Diagnostics and Treatment: A Demand and Supply Survey of Health-Care Facilities in Kenya

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INTRODUCTION

In the Cancer Control article, Wambalaba et al. elegantly described demand-side and supply-side cancer care issues in Kenya [1]. The authors insightfully pointed out that a balanced cancer care policy and capacity enhancements are vital to addressing these issues. In Kenya, the gap between the demand for affordable cancer care and the affordable supply has been rising, which has been common in sub-Saharan African nations. The authors looked closely into this alarming gap and suggested building credible data that is critical in designing a more adequate cancer care policy. The authors went on to suggest possible evidence-based interventions to addressing this gap from the demand and supply side. The demand-side interventions included improving cancer awareness and education, especially in rural areas, promoting preventive lifestyle practices, and giving more preventive attention to females. The supply-side interventions included improving early detection measures especially for rural patients, coordinated cost management for affordable care, and matching the cancer care services to the needs of the patients in rural areas where the vast majority of the population lives by diverting the concentrated cancer care resources in large cities. The authors further recognized multi-level resources are critical to implementing the interventions and called for the active role of the Kenyan government in forging collaborations with foundation donors to expand subsidy programs for patients without financial means.

METHODOLOGY

The authors raised the shortcomings of the Nairobi Cancer Registry and the need for well-coordinated cancer data at the national level, in particular, the pattern of distribution of cancers, as well as the nature, the specific types, and the frequency of haematological and non-haematological malignancies in Kenya. To partly fulfil this urgent need, the authors collated primary data and population-based secondary data on cancer in Kenya. As the authors noted, their data collection was however constrained by the seemingly uncontrollable circumstances such as medical practitioners' strikes, interview scheduling, logistical problems, lack of survey responses, and delayed approvals from targeted facilities. Despite these shortcomings, the authors succeeded in assessing the demographic distribution and the types of cancer cases using the sample of 1,048 patients in urban and rural regions. To better represent the national population characteristics, the authors included vulnerable populations in the sampling. Furthermore, they used a descriptive research design to carry out their two-fold research objectives on the demand side and supply side issues of cancer control in Kenya. Accordingly, on the demand side, the authors identified the types of cancer treatments to assess the prevalence of cancer in Kenya. On the supply side, they used the data about the types of testing and treatment and equipment to assess cancer diagnostic and treatment capacity of the health facilities.

The prevalence and types of cancer in Kenya

The authors identified age being one of the major risk factors for cancer and gender disparities in cancer cases and peak ages. More women had cancers than men while having cancers at much earlier ages than men. The most common age for female patients was at age 52 compared to male patients at age 62. By gender, the most prevalent cancers for women were breast and cervical cancers, while oesophagus and prostate cancers for men. These results paralleled the findings of the Kenya Medical Research Institute (KEMRI) report [2]. If proper interventions are not taken, new cervical cancer cases are expected to climb up annually. To prevent cervical cancer from being the leading cause of death among Kenyan women, the authors proposed fully-fledged national-level cervical cancer screening and awareness programs. In North America and Europe, cytological screening has been effectively lowering cervical cancer [3]. However, given the high costs and limited resources, the Kenyan government should seek cost-effective alternatives such as Visual Inspection with Acetic Acid which is popularly used for cervical cancer screening in low-income countries [4]. Urban-rural disparities in the knowledge of breast cancer and early detection measures pose also challenges to the Kenyan government. Insured and more educated urban women were more likely to get breast cancer screening than uninsured and less-educated rural women [5]. The authors implied widespread awareness of cancer signs and symptoms and accurate information about cancer is critical to increasing screening and to treating cancer in the early stages.

Limited diagnostic and treatment capacity

The authors assessed the limited diagnostic and treatment capacity in Kenya and its implications on building physical, human, and fiscal resources. The authors indicated that hospitals were receiving most cancer patients in the advanced stages of cancer due to the inadequate cancer prevention and treatment infrastructure in Kenya. The concentration of most cancer care services in Nairobi leads to very limited access to services for most patients in rural areas. To address this proximity problem, the authors suggested investment in rural community clinics with the help of cancer foundations.

According to Kenya Cancer Statistics, there is a very limited cancer care medical personnel in Kenyan hospitals which adds more hurdles

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to cancer screening and treatment availability [6]. In response, the authors called for the change in medical and nursing education to enhance learning about cancer. Notably, the Kenyan healthcare system lacks fiscal resources, thus constraining physical and human capacity resources. This issue is more pronounced since cancer treatment is costly due to the intensive procedures for advanced cancer cases. Expanding the subsidy programs with the help of cancer foundations as suggested by the authors is worthwhile to spur the accessibility of screening and treatment services to poor patients.

DISCUSSION AND CONCLUSION

The authors identified the underlying causes of the alarming gap between the rising demand for cancer care and the limited supply of affordable care in Kenya. Facing the human, physical and fiscal resource constraints on the supply side, there is an urgent call for the promotion of cancer awareness, adequate information about cancer, and preventive lifestyle practices especially in rural areas where most cancer vulnerable population lives. The authors resonate deeply with many who have been advocating solutions for rising cancer cases in Kenya. Their demand side and supply side recommendations are refreshing and should lead to meaningful changes in the cancer care policy in Kenya. Among them would be increasing investments in prevention and early detection measures and mitigation strategies, which are more cost-effective for cancer control. Given the heavy demand for cancer care with limited resource capacity in Kenya, public and private organizations should collaborate in the distribution of affordable cancer treatment drugs, and payment mechanisms for poor patients. As cancer populations in Kenya are becoming more diverse, integration of prevention, screening, and early detection could lead the way to make the necessary changes required to improve cancer control benefits cost-effectively. A

comprehensive resource mobilization strategy should be considered to implement a fully-fledged national program to broaden cancer screening coverage. Despite being a pilot study, the findings shed light on the unbalanced cancer care policies and underlined the multi-level demand-side and supply-side challenges as well as potential solutions.

AUTHOR CONTRIBUTIONS

Dr. Son and Dr. Wambalaba conceptualized and wrote this commentary. Both have reviewed and approved this article for publication.

CONFLICT OF INTEREST

The authors declare that the project was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

REFERENCES

1. Wambalaba FW, Son B, Wambalaba AE, et al. Prevalence and capacity of cancer diagnostics and treatment: a demand and supply survey of health-care facilities in Kenya. *Cancer Control.* 2019;26(1):1-12.
2. KEMRI. Cancer incidence report. Nairobi cancer registry. The Kenya Medical Research Institute. 2006.
3. Arbyn M, Weiderpass E, Bruni L, et al. Estimates of incidence and mortality of cervical cancer in 2018: A worldwide analysis. *Lancet Glob Health.* 2020; 8(2):191-203.
4. Viviano M, DeBeaudrap P, Tebeu PM, et al. A review of screening strategies for cervical cancer in human immunodeficiency virus-positive women in Sub-Saharan Africa. *Int J Womens Health.* 2017; 9:69-79.
5. Antabe R, Kansanga M, Sano Y, et al. Utilization of breast cancer screening in Kenya: What are the determinants? *BMC Health Serv Res.* 2020;20(1):1-9.
6. Kenya Cancer Statistics and National Strategies. Kenyan network of cancer organizations. Nairobi, Kenya: Kenyan network of cancer organizations. 2013.