

# Ration health resources to save more statistical lives from cervical cancer death in Africa: Why are we allowing them to die?

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## Abstract

Public health interventions, particularly in low- and middle-income countries (LMICs), are implemented with the never-ending challenge of limited resources and the ever-present challenge of choosing between interventions. While necessary, the application of ethical analysis is absent in most of such decision-making, resulting in fewer favourable consequences. In applying ethical principles to the saving of women from the burden of cervical cancer, I argue in favour of saving statistical lives (investing in prevention) in LMICs, by mapping the principles of justice in resource allocation to the prevailing circumstance. The key facts in this circumstance are that providing treatment (which is saving identified lives), involves mostly providing palliative treatment, which is associated with a high likelihood of death among the identified lives while undergoing treatment or shortly thereafter. I focus on the dilemma of having a national cancer prevention program versus the expansion of cancer treatment facilities.

## KEYWORDS

cervical cancer, prevention, rationing, resource allocation, statistical lives

## 1 | INTRODUCTION

Health resource scarcity is a global issue but is particularly acute in low- and middle-income countries (LMICs) like Ghana. Policy implementers have to ration national funding for a tall list of other social needs. Often during the considerations and debates for rationing of financing for health and health care delivery in LMICS, ethical considerations particularly, of justice and fairness are not brought to the fore. Although seldom openly discussed, what constitutes a just approach to health funding and healthcare delivery is frequently not openly or explicitly part of the conversation about rationing national resources. Hence, it is unsurprising that in the case of reducing the high burden of cervical cancer in Ghana, what is done in Ghana may not map with what should be done as a matter of justice (in terms of utility, fairness, and means of prioritisation).

In light of the high mortality due to cervical cancer,<sup>1</sup> the Ghanaian health system is tilted toward the treatment of cervical cancer with no national prevention activity.<sup>2</sup> Additionally, despite the high cervical cancer incidence and prevalence,<sup>3,4</sup> its prevention in Ghana has remained opportunistic. This situation begs the ethical

<sup>1</sup>Sung, H., Ferlay, J., Siegel, R.L., Laversanne, M., Soerjomataram, I., Jemal, A., & Bray, F. (2021). Global Cancer Statistics 2020: GLOBOCAN Estimates of Incidence and Mortality Worldwide for 36 Cancers in 185 Countries. *CA: A Cancer Journal for Clinicians*, 71(3):209–249.

<sup>2</sup>Atuwu-Ampoh, V.D. (2014). Quality of Life of Gynaecological Cancer Patients Undergoing Radiotherapy Treatment at the Oncology Department at the Komfo Anokye Teaching Hospital, Ghana. *Asia-Pacific Journal of Clinical Oncology*, 10:164–165.

<sup>3</sup>Sung, et al., op. cit. note 1.

<sup>4</sup>GLOBOCAN & World Health Organization (WHO): International Agency for Research on Cancer (IARC). (2018). Cancer Today: Population fact sheet: Ghana. Retrieved May 8, 2019, from <http://gco.iarc.fr/today/data/factsheets/populations/288-ghana-fact-sheets.pdf>.

analyses of whether, as a matter of national policy, 1) it would be morally permissible to direct limited funds to HPV/cervical cancer prevention activities, rather than expanding cervical cancer treatment and 2) it would be morally permissible to strive for a fair balance in rationing limited resources between cervical cancer prevention and the expansion of its treatment in Ghana. "Expanding cervical cancer treatment" in this paper means to make cervical cancer treatment available in major cities or/and to expand the treatment modalities available at the two major treatment centres.

In this paper, I present the positions that expanding cervical cancer treatment exacerbates the existing disadvantages to Ghanaian women diagnosed with cervical cancer, most of whom cannot afford the available cervical cancer treatment. I will also argue that cervical cancer prevention will be more beneficial because the claim for prevention in this context would be stronger than the claim to be treated after a diagnosis of cervical cancer. Additionally, cervical cancer prevention is an added benefit to women living with HIV/AIDS and the HIV/AIDS Prevention Program in Ghana. Assuming that HIV/AIDS prevention programmes will continue to be funded, I will argue that including cervical cancer prevention in the existing HIV/AIDS prevention program will be a means of maximizing the benefits of the program to the health of women and a means of achieving fairness between women of low and high socioeconomic status and those living in rural and urban areas.

Preventing cervical cancer will eventually reduce the number of women diagnosed and ensure women who get the cancer are diagnosed at an early stage (saving statistical lives), which in turn will ensure that treatments are more effective not palliative (enhances saving identified lives). Therefore, the resources available for, and the treatment of women diagnosed with cervical cancer would be relatively improved. Additionally, women diagnosed with early-stage cancer would not suffer unduly before and during treatment, and their prospects of benefiting from treatment will be increased. Furthermore, this paper is motivated by the potential it holds to influence policymakers in LMICs to actively include ethical considerations in re-thinking the use of limited health resources in a manner that will ensure maximum benefits and fairness for most if not all its citizens.

## 1.1 | Cervical cancer prevention and treatment

Cervical cancer prevention (primary and secondary prevention) includes education, vaccination, and screening (early detection). Educational interventions are most directed at motivating HPV infection prevention, the avoidance of risk factors, and encouraging regular screening. Prevention by vaccination is directed at HPV infection prevention; and focused on females (but may include males in some countries) between 9 and 13 years and not older than 26 years. Screening is directed at early detection with approaches including visual inspection with acetic acid (VIA) with the possibility of on-site management or treatment of pre-cancers, Pap smear testing and testing for HPV DNA.

Cervical cancer treatments, particularly those available in Ghana, include surgery, chemotherapy, and radiotherapy. These are often used in combination with the aim of either a radical treatment approach (estimated to constitute roughly 70% of treatments in Ghana) or a palliative treatment approach (estimated to account for about 30% of treatments in Ghana).<sup>5</sup>

## 1.2 | The relationship between HIV and HPV infections

HIV and HPV are sexually transmitted viruses that interact with the same human immune cells such that the risk of infection by one of them is largely increased by the existence of the other.<sup>6,7,8</sup> Briefly, having an HIV infection implies that a woman has an increased risk for HPV infection since the immune cells that will fight off HPV are those infected and destroyed by HIV. Conversely, being HPV positive implies that these immune cells increase in numbers in the female reproductive system and are more exposed to the infection by HIV. Again, persons living with HIV are more likely to have a persistent HPV infection compared to those not living with HIV because, with reduced counts of such cells in HIV-positive women, HPV can easily cause cervical cancer. Furthermore, the risk of developing cervical cancer is increased by being HIV positive and/or having AIDS. Antiretroviral treatment for HIV/AIDS does not significantly reduce the risks associated with HPV infection.

## 2 | PREVENTION OVER EXPANDING TREATMENT OF CERVICAL CANCER

### 2.1 | Being unfair with cervical cancer resource rationing

Let's consider three categories of women among the estimated 9.5 million women over 15 years of age in Ghana. There are those around 20 years or older, who are currently living with HPV infections, another, who are about 30 years or older and are living with cervical lesions, and the third are those older than 45 years living with cervical cancer. This generic categorization is based on the reported estimates of cervical cancer incidence, and prevalence, the number of women receiving cervical cancer treatment and cervical cancer mortality in

<sup>5</sup>Atuwo-Ampoh, op. cit. note 2.

<sup>6</sup>Adjorlolo-Johnson, G., Unger, E.R., Boni-Ouattara, E., Touré-Coulibaly, K., Maurice, C., Vernon, S.D., Greenberg, A.E., Wiktor, S.Z., & Chorba, T.L. (2010). Assessing the relationship between HIV infection and cervical cancer in Côte d'Ivoire: A case-control study. *BMC Infectious Diseases*, 10:242.

<sup>7</sup>Firnhaber, C., Le, H.V., Pettifor, A., Schulze, D., Michelow, P., Sanne, I.M., Lewis, D.A., Williamson, A.-L., Allan, B., Williams, S., Rinas, A., Levin, S., & Smith, J.S. (2009). Association between cervical dysplasia and human papillomavirus in HIV seropositive women from Johannesburg South Africa. *Cancer Causes & Control*, 21(3):433-443.

<sup>8</sup>Palefsky, J. (2009). Human papillomavirus-related disease in people with HIV. *Current Opinion in HIV and AIDS*, 4(1):52-56.

Ghana.<sup>9,10,11</sup> Sadly, the majority of these women are not aware of their conditions. However, most of these women would have become aware of their conditions if there had been a national Cervical Cancer Prevention Programme (or Early Detection Programme) in Ghana. This is premised on the assumption that if there was such a program, the associated advocacy campaign would have improved the attitude towards cervical cancer screening, which would have increased screening rates to more than the 2 – 5% that has been reported.<sup>12</sup> However, because of the absence of such a programme, those 45 years or older would have to wait until they are prompted to seek health care by the nonspecific gynaecological symptoms that may arise when the cancer is in its late or advanced stages. This often occurs after several tests for other suspected diseases (additional cost without benefits). An appropriate diagnosis would then make them aware that they are living with cervical cancer. For such women, the nation has made provision for them to receive treatment, by rationing the limited health resource for addressing the high burden of cancers in Ghana in favour of treatments. For example, there are three radiotherapy centres and a few more public tertiary hospitals equipped in recent times to improve cancer diagnosis and treatment in Ghana. While the health need of the women diagnosed with late-stage cervical cancer is being addressed, that of the other two groups of women are on hold. Intuitively, it seems unfair that the other two groups of women do not receive attention for their health needs because the limited health resources have been rationed to heavily favour treatment; I am of the view that this must not continue.

However, the presumption that the needs of the three groups of women at this point are equal, and therefore they need equal attention is objectionable. The reason is that most of the women in the first two groups may not develop cervical cancer at all in their lifetime, although they are living with HPV infections and cervical lesions respectively. About 90% of HPV infections are cleared by the human immune system and up to 50% of cervical lesion regress.<sup>13,14,15,16,17,18</sup> Hence, if women diagnosed with late-stage

cervical cancer are already experiencing the morbidity associated with the disease at this stage, then it seems fair that resources must be rationed to address their more pressing needs. Therefore, rationing limited resources to achieve equal attention to the three groups of women will rather be unfair to the women diagnosed with cervical cancer. Additionally, saving the life of identified persons, who need treatment now is morally favoured (based on the “rule of rescue” principle) over saving the lives of people who cannot be identified and who may not develop an outcome (cervical cancer); what have been commonly referred to as saving statistical lives.<sup>19</sup>

In this context of cervical cancer, “statistical lives” means women (lives) that we, only at this point, can predict may be lost in the future, due to existing known risk factors of cervical cancer (primarily being HPV positive), unless we intervene, but whose identities are impossible for us to know at present (and sometimes even in hindsight). Additionally, for the argument presented in this paper, “statistical lives” would also include women (lives) whose identities we do not currently know, but which we could come to know before they are lost (women with cervical cancer lesions), using presently available evidence and/or scientific know-how – what has been described by other authors as “identifiable lives”. These are different from the other group known as “Identified Lives”, who are women (lives) who are currently known and who are highly likely to die due to cervical cancer if we do not intervene. In other words, saving an identified person from death means saving someone who, but for cancer treatment, was certain (or at least very likely) to die. Some would argue that this distinction maps well to the rule of rescue and the principle of urgency. However, the question here is, would it remain morally optimal to favour saving identified persons (favouring treatment) if after treatment, which should save the person, the person is still very likely to die in a short time (less than 5 years) or that the treatment may not be able to save the person because the treatment comes in late, or that the person is highly likely to die while receiving the intervention? The fact is that most of the cervical cancer treatments in Ghana are palliative, so how is this a rescue? In other words, favouring treatment in this context is allowing more identified lives to be lost while *trying* to extend the life of a few of them for up to 5 years.

There is a further impression that favouring a cervical cancer prevention program (saving statistical lives) may be more costly and therefore unfair to demand that the nation employs a more costly intervention when there is a less costly alternative. This may be because a prevention/early detection program will be targeted at about 9.5 million women older than 15 years who are at risk, while the treatment program is targeted at about 3000 women diagnosed

<sup>9</sup>ICO/IARC Information Centre on HPV and Cancer. (2023). Ghana Human Papillomavirus and Related Cancers, Fact Sheet 2023. Retrieved November 3, 2023, from <https://www.who.int/news-room/fact-sheets/detail/human-papilloma-virus-and-cancer>.

<sup>10</sup>World Health Organization (WHO). (2021). Cervical cancer Ghana 2021 country profile. Retrieved November 3, 2023 from <https://www.who.int/publications/m/item/cervical-cancer-gha-country-profile-2021>.

<sup>11</sup>Nartey, Y., Hill, P.C., Amo-Antwi, K., Nyarko, K.M., Yarney, J., & Cox, B. (2017). Cervical Cancer in the Greater Accra and Ashanti Regions of Ghana. *Journal of Global Oncology*, 3(6):782-790.

<sup>12</sup>WHO, op. cit. note 10.

<sup>13</sup>Bruno, M.T., Cassaro, N., Mazza, G., Guaita, A., & Boemi, S. (2022). Spontaneous regression of cervical intraepithelial neoplasia 3 in women with a biopsy–cone interval of greater than 11 weeks. *BMC Cancer*, 22(1):1072.

<sup>14</sup>Wang, S.S., Gonzalez, P., Yu, K., Porras, C., Li, Q., Safaeian, M., Rodriguez, A.C., Sherman, M.E., Bratti, C., Schiffman, M., Wacholder, S., Burk, R.D., Herrero, R., Chanock, S.J., & Hildesheim, A. (2010). Common Genetic Variants and Risk for HPV Persistence and Progression to Cervical Cancer. *PLoS ONE*, 5(1):e8667.

<sup>15</sup>Bosch, F.X., Burchell, A.N., Schiffman, M., Giuliano, A.R., de Sanjose, S., Bruni, L., Tortolero-Luna, G., Kruger Kjaer, S., & Muñoz, N. (2008). Epidemiology and Natural History of Human Papillomavirus Infections and Type-Specific Implications in Cervical Neoplasia. *Vaccine*, 26, Suppl 10:K1–16.

<sup>16</sup>Koshiol, J., Lindsay, L., Pimenta, J.M., Poole, C., Jenkins, D., & Smith, J.S. (2008). Persistent Human Papillomavirus Infection and Cervical Neoplasia: A Systematic Review and Meta-Analysis. *American Journal of Epidemiology*, 168(2):123-137.

<sup>17</sup>Bosch, F.X., Qiao, Y.-L., Castellsagué, X. (2006). Chapter 2: The epidemiology of human papillomavirus infection and its association with cervical cancer. *International Journal of Gynaecology and Obstetrics*, 94, Suppl 1:S8-S21.

<sup>18</sup>Trimble, C.L., Piantadosi, S., Gravitt, P., Ronnett, B., Pizer, E., Elko, A., Wilgus, B., Yutzy, W., Daniel, R., Shah, K., Peng, S., Hung, C., Roden, R., Wu, T.C., & Pardoll, D. (2005). Spontaneous Regression of High-Grade Cervical Dysplasia: Effects of Human Papillomavirus Type and HLA Phenotype. *Clinical Cancer Research*, 11(13):4717-4723.

<sup>19</sup>Zameska, J.A. (2022). An Uncertainty Argument for the Identified Victim Bias. *Journal of Applied Philosophy*, 39(3):504-518.

with cervical cancer annually in Ghana. However, in the absence of empirically determined cost per capital to the nation for these two policy options, it remains doubtfully that the prevention/early detection program will cost the nation more than a treatment-centred policy, because the inputs (surgery, drugs, CT machines, LINAC etc.) for treatment and their maintenance are more costly than the inputs of prevention, say by VIA (5% acetic acid, touch light, speculum and swab).

## 2.2 | Reducing the risk of harm by cervical cancer resource rationing

Those who take the concept of the risk of harm seriously will assert that women diagnosed with late-stage cervical cancer who are suffering pain and are at a higher risk of death need more help. Therefore, the nation should ration her limited resources in favour of treatment. Seemingly so, but this position in my view is rather inconsistent with the same risk of harm principle. This is because it is the failure to act on the lesser risk of developing cervical cancer at a younger age (HPV infection and cervical lesions), due to the lack of a national cervical cancer prevention/early detection program, that has allowed these women to be now diagnosed with advanced cervical cancer. It is that which has caused them to be at an increased risk of death, now more than ever, due to cervical cancer. In other words, it seems unacceptable to argue that the risk of morbidity and death due to cervical cancer should be allowed to increase to as close as possible to death (until a diagnosis of late-stage cancer) and when death is inevitable before action is taken. This cannot be an act of risk reduction when death occurs among this group of women. I am confident older women diagnosed with cervical cancer, who are living with the pain and suffering of advanced cancer and its treatments that may not save their lives, would feel undone by their country when they realise that the nation chooses to gamble with their 10% chance of developing cervical cancer by waiting until when their risk of death is 80% and they are suffering numerous pains before coming to their aid. This, the nation has been doing by rationing limited resources in favour of cancer treatment rather than a prevention/early detection program.

So, they were not able to receive any HPV vaccination when they were girls because there was no national HPV vaccination program. Again, they were not able to screen for cervical lesions, as young women, and mid-aged women because the nation had no national screening program for the early detection of lesions and cancer. Rather, they are provided with a good treatment facility after they have been diagnosed with late/advanced-stage cervical cancer and even with this treatment they are more likely to die of cervical cancer.

## 2.3 | Maximizing benefits of cervical cancer resource rationing

Another ethical consideration in the debate over decreasing the prevalence of cervical cancer in Ghana is ensuring that the benefits of

rationing are maximized<sup>20</sup> and that it reaches a larger number of women. It may seem that reaching out to more women diagnosed with late-stage cervical cancer will be maximizing the benefits to a greater number of women. However, another view is that the current approach of rationing limited resources in favour of treatment and the expansion of treatment without a cervical cancer prevention program does not ensure benefits are maximized to the larger number of women in Ghana. This view is based on the fact that between 70% and 80% of women diagnosed with cervical cancer in developing countries, including Ghana, die by the fifth year after diagnosis even when they are receiving treatment, primarily because they were diagnosed with late-stage cancer.<sup>21,22,23,24</sup> Additionally, treatment outcomes have been reported to be more than 50% successful when the cancer is detected at an early stage, which is only achievable with a screening (prevention) program. These imply that the health benefits of expanding treatment alone are very low but will largely increase if it is associated with an early detection program. The additional reality is that most women who are mostly diagnosed with late-stage cervical cancer in Ghana are of the middle and low socioeconomic class. They are frequently unable to afford the costly treatment, which implies the benefits of treatment do not reach the larger number of women who need it. As part of my outreach campaign on screening for cervical cancer, I had the opportunity to counsel a 45-year-old woman who has been diagnosed with stage II cervical cancer and had refused to go back for treatment because she could not afford the cost. She stated that it was better for her to use the now very common and affordable immune/health booster medication because it was making her feel better (symptom relieves). When these women try to get these treatments, they end up using almost all, if not all, their life savings to afford, mostly part of the treatment. Thereafter, most of them die of the disease even before they complete their treatment, leaving behind mostly a young family with lesser financial power. With these in mind, it is clear that expanding cervical cancer treatment in Ghana is not maximizing the benefits of the limited funds for dealing with the high burden and mortality of cervical cancer.

I do not see how as a nation Ghana continue to convince herself that rationing more of our limited health resources in favour of providing cancer treatment rather than providing prevention/early detection should be a norm. This is an inequity that further exacerbates the injustice to poor/vulnerable women. It is a moral tragedy to be allowed to develop late-stage cervical cancer and be

<sup>20</sup>Kong, H.E., Grant-Kels, J.M., & Stoff, B.K. (2020). Applying the ethical principles of resource allocation to drugs in limited supply during a public health crisis. *Journal of the American Academy of Dermatology*. 83:170-171.

<sup>21</sup>Nartey, et al., op. cit. note 11.

<sup>22</sup>Madli, F., Leong, E., Ong, S.K., Lim, E., & Tengah, K.A. (2021). Predictive factors associated with survival rate of cervical cancer patients in Brunei Darussalam. *Brunei International Medical Journal*. 15:125-132.

<sup>23</sup>Wassie, M., Argaw, Z., Tsige, Y., Abebe, M., & Kisa, S. (2019). Survival status and associated factors of death among cervical cancer patients attending at Tikur Anbesa Specialized Hospital, Addis Ababa, Ethiopia: a retrospective cohort study. *BMC Cancer*. 19(1):1221.

<sup>24</sup>Nartey, Y., Hill, P.C., Amo-Antwi, K., Nyarko, K.M., Yamey, J., & Cox, B. (2017). Factors Contributing to the Low Survival Among Women With a Diagnosis of Invasive Cervical Cancer in Ghana. *International Journal of Gynecological Cancer*. 27(9):1926-1934.

given treatment that you may not be able to completely afford, and so you may die of cervical cancer, during treatment, when you could have afforded either an HPV vaccination, VIA test, a Pap smear test, or an HPV test at a younger age, which the nation chooses not to provide. Providing such preventive and early detection services much earlier in a woman's life will be, in my view and I am confident you will agree too, an appropriate way to ration limited health resources for the reduction of cervical cancer.

## 2.4 | A joint HIV/AIDS – HPV/cervical cancer prevention program

I argue here that the way to implement a cervical cancer prevention program that will maximize its benefits to more women will be by having a joint HIV/AIDS and HPV/cervical cancer prevention program. By such a program, cervical cancer prevention will benefit from the already established framework, human resources, and infrastructure the HIV/AIDS prevention program has established, and is using to reach women at risk of HIV infection, who are equally at risk of HPV infection as has been described earlier in this paper. Additionally, Women living with HIV/AIDS, who are at an elevated risk of death from late-stage cervical cancer, could be spared this additional risk through timely screening to prevent late-stage diagnoses. Otherwise, their lives would only be prolonged for up to 5 years after a late-stage cervical cancer diagnosis, when cancer treatment (mostly palliative) is expanded without prevention. This difference I consider has moral significance. Some major societal implication of such a program is that it can potentially reduce the overall economic burden on the healthcare system and the government. Additionally, it can potentially save more lives, of people living with HIV/AIDS in Ghana, thereby maintaining family structures.

Although not discussed in detail in this paper, my view of a Joint HIV/AIDS-HPV/Cervical Cancer screening may be one of two possibilities. The first would include providing an HPV test, a VIA test or a Pap test to every woman (25 years or older) who is to be tested for HIV as part of the HIV/AIDS prevention program activity. The second will be one that women who have been confirmed as having HIV and/or AIDS will be screened for cervical cancer by either an HPV and a VIA test or a Pap smear test. The argument in this section is based on the first possibility, since it would ensure a wider coverage of women and has the likelihood of identifying persons without HIV/AIDS who may have precancer lesions or early-stage cervical cancer. I contend that the claim of a woman who is living with HIV/AIDS to be saved from the additional risk of death due to cervical cancer by prevention is stronger than the claim of another whose life, at best, will only be prolonged by less than 5 years in most cases with treatment. Establishing a cervical cancer screening program in Ghana is justified.

Based on the facts presented on the relationship between HIV and HPV, providing a cervical cancer prevention program for a person living with HIV/AIDS will amount to increasing the number of years

they will live with the condition, disability-adjusted life years (DALYs) will be increased. Given that, in simple terms, cost-effectiveness is DALYs averted divided by cost, and that a joint prevention program will not increase the cost by more than the decrease in DALYs, there will be a maximization of cost-effectiveness. On the other hand, given that treatment for cervical cancer largely only prolong the life of women, because they are often diagnosed late, there will not be an increase in DALYs for women living with HIV/AIDS. Rather, there will be a reduction if a said woman who is on antiretroviral (ARV) treatment is diagnosed late with cervical cancer, she will lose the DALYs she gains using the ARVs. As argued by Bognar and Hirose (2014), the allocation of healthcare resources should aim at achieving the best health outcomes.<sup>25</sup> In other words, aim at maximizing cost-effectiveness. As indicated, having a joint program maximizes the cost-effectiveness of the HIV/AIDS prevention program. It will ensure that the gains made by AVR treatment are not all lost by a late diagnosis of cervical cancer.

A major objection that is often brought against the concept of maximizing benefits and utility is the concern for fairness. Such that maximizing benefits must be constrained and qualified by concerns for fairness.<sup>26,27</sup> However, this joint program would rather emphasize equitable access to preventive healthcare services, especially for the vulnerable in Ghanaian society. Specifically, fairness through distributive justice is enhanced by the fact that women of lower socioeconomic status who are already burdened by their HIV/AIDS status would be allowed a greater opportunity to avert death from cervical cancer by making available to them prevention that is affordable to them. It is rather that, the current situation denies access to prevention to women living with HIV/AIDS who are of low socioeconomic status but gives access to only women of high socioeconomic status, to whom cervical cancer treatment is available – only in two tertiary hospitals located in the two major cities, Accra and Kumasi. Additionally, these women of high socioeconomic status can afford cervical cancer treatment. Again, the expansion will take access to one or two more tertiary hospitals in another city of the country, not even in the peri-urban areas. On the other hand, HIV/AIDS prevention program has reached women in rural areas and that has ensured wider coverage and access to the key benefit, which is the reduction in HIV prevalence in Ghana. It is therefore inconsistent with the principles of distributive justice and ethical equality that poorer and more vulnerable women who live in rural areas will have to make the extra effort of moving to the cities, looking for accommodation and bearing high living standards to obtain cervical cancer treatment.

In addition to addressing the concern of fairness in light of maximizing benefits at the individual level, such a program addresses the concern at the societal level as well. A joint program would lead to the

<sup>25</sup>Bognar, G., & Hirose, I. (2014). *The ethics of health care rationing: An introduction*. London: Routledge.

<sup>26</sup>Ibid.

<sup>27</sup>Varkey, B. (2021). *Principles of Clinical Ethics and Their Application to Practice*. *Medical Principles and Practice*. 30(1):17–28.

reduction in disparities in health outcomes and promote greater health equity by ensuring that affordable preventive services are available to all regardless of geographic location and socioeconomic status in the society. It is undoubtedly clear that this will help meet the society's moral duty to address health disparities and ensure that vulnerable groups have equitable access to healthcare. Additionally, when prevention efforts are integrated, societal stigmatization would be lesser, and more people would be inclined to seek healthcare services and screening, ultimately benefiting public health and strengthening the overall healthcare system in Ghana, in the long term. It would improve the coordination of the different players in the national healthcare system, enhancing monitoring, data collection and reporting, and the building of robust infrastructure. The potential reduction in health costs, particularly, for cancer management can have a positive economic implication for the nation. Furthermore, a joint program can also provide opportunities for capacity building among healthcare professionals. Training and education in both HIV/AIDS and cervical cancer prevention can enhance the skills of healthcare workers. As a public health researcher in women's health, I can envisage that this collaboration between the two areas of prevention can foster research and innovation. It may lead to the development of new prevention strategies and screening methods that can benefit not only Ghana but other developing countries, particularly those in the West African region.

### 3 | COMBINE CERVICAL CANCER PREVENTION AND TREATMENT

Research has demonstrated that 30% of cervical cancers are preventable, and approximately one-third of cases can potentially be cured through early detection and proper diagnosis.<sup>28</sup> What this fact is saying is that we can benefit more from treatment if it is combined with prevention methods that ensure early detection. That is 30% more cases will be potentially cured. I, therefore, contend that it is of moral significance to add prevention to the treatment of cervical cancer to make treatment more effective rather than expanding treatment when there is no prevention program. That will be improving the benefits of treatment from prolonging lives for up to 5 years to a potential cure; this makes having prevention more permissible, particularly, given that the cost of including prevention will be further reduced if this is integrated with the existing HIV/AIDS prevention program.

### 4 | CONCLUSION

A primary limitation of this paper is that it does not argue for each of the prevention programs independently, which will be useful in selecting which of the available prevention methods to integrate with the HIV/AIDS prevention program. This, however, does not take

away from the arguments made in favour of the claim that it is a good balance to have a joint HIV/AIDS – HPV/cervical cancer prevention program. Therefore, including a cervical cancer prevention program will bring a balance between prevention and treatment of cervical cancer in Ghana, given the palliative nature of the treatment in light of the late-stage diagnosis in Ghana. Based on the competing claims principle, I have argued that implementing a cervical cancer prevention program is ethically justified, and the classic objections against this stance do not apply in this context. Concerning the morally prudent means of using limited health funds, I argued that allocating such funds to cervical cancer prevention is the most moral option.

#### AUTHORSHIP

Adolf Kofi Awua conceived the idea, reviewed the literature, conducted ethical analysis and interpretation, drafted the manuscript, and reviewed the manuscript critically for important intellectual content and approval for publication.

#### RESEARCH ETHICS AND PARTICIPANT APPROVALS

The study does not require ethics clearance.

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#### DECLARATION OF CONFLICTING INTERESTS

No competing interests.

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<sup>28</sup>Opoku, C.A., Browne, E.N.L., Spangenberg, K., Moyer, C., Kolbilla, D., & Gold, K.J. (2016). Perception and risk factors for cervical cancer among women in northern Ghana. *Ghana Medical Journal*. 50(2):84-89.