Cancer Prevention Programs and Public Policy Initiatives in Nigeria

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ABSTRACT

Cancer remains a leading cause of mortality in Nigeria, with increasing incidence rates driven by factors such as urbanization, aging, and lifestyle changes. Despite efforts to improve cancer care, barriers such as late diagnosis, inadequate healthcare infrastructure, and limited public awareness hinder effective prevention and early detection. This review examines Nigeria's cancer prevention strategies and the role of public policy initiatives in addressing these challenges. It explores primary and secondary prevention measures, including vaccination programs, lifestyle modification campaigns, and screening initiatives. Additionally, it evaluates key policy interventions, such as the National Cancer Control Plan (NCCP), tobacco control regulations, and public-private partnerships aimed at enhancing cancer prevention and treatment accessibility. The review highlights existing gaps in funding, healthcare infrastructure, and policy implementation, proposing recommendations to strengthen cancer prevention through enhanced public health policies, improved healthcare access, and increased government and stakeholder collaboration. Addressing these issues is critical for reducing Nigeria's cancer burden and improving overall public health outcomes.

Keywords: Cancer prevention, public policy, Nigeria, cancer control, screening programs.

INTRODUCTION

Cancer remains one of the leading causes of death globally, and its impact is profoundly felt in developing countries such as Nigeria [1]. As the country's population continues to grow, cancer incidence and mortality rates have been on the rise, presenting significant public health challenges. Despite notable advances in treatment and care, the burden of cancer in Nigeria is exacerbated by late diagnoses, limited access to quality healthcare, and insufficient awareness of preventive measures [2]. This highlights an urgent need for an integrated approach to cancer prevention, including effective public policies that address the socio-economic, cultural, and healthcare system barriers that hinder early detection and intervention. Cancer is increasingly becoming a major public health issue in Nigeria. According to the World Health Organization (WHO), the number of cancer cases in low- and middle-income countries like Nigeria is rising due to a combination of factors, including population growth, aging, urbanization, and the adoption of Western lifestyle habits such as poor diet, smoking, and physical inactivity [3]. In 2020, Nigeria recorded an estimated 115,000 new cancer cases and over 80,000 cancer-related deaths. These numbers are expected to grow as the population continues to age, and as risk factors such as tobacco use and obesity increase. Some of the most common cancers in Nigeria include breast cancer, cervical cancer, prostate cancer, and liver cancer, which account for a substantial proportion of cancer-related deaths in the country. Breast cancer is the most prevalent among Nigerian women, while prostate cancer is the leading cause of cancer-related deaths among Nigerian men [4]. Additionally, cervical cancer remains a significant concern, especially in rural areas where access to screening and early intervention services is limited. The disparity in cancer care and survival outcomes between urban and rural populations is another critical aspect of the cancer burden in Nigeria [5]. While major cities like Lagos and Abuja may have access to better healthcare facilities, the majority of Nigerians, especially those living in rural areas, face considerable barriers to diagnosis, treatment, and palliative care. These barriers include insufficient healthcare infrastructure, lack of trained medical personnel, high treatment costs, and poor awareness of cancer prevention strategies. Cancer prevention plays a pivotal role in reducing the disease burden in Nigeria [6].

Prevention strategies, which include primary prevention (reducing risk factors), secondary prevention (early detection), and tertiary prevention (managing the disease and its complications), are essential for lowering cancer incidence and mortality [7]. Primary prevention focuses on reducing exposure to known carcinogens, promoting healthy lifestyles, and implementing vaccination programs, such as the Human Papillomavirus (HPV) vaccine to prevent cervical cancer [8]. Secondary prevention, on the other hand, aims at early detection of cancers through screening programs, such as mammography for breast cancer and Pap smears for cervical cancer [9]. Early detection often leads to better outcomes and increased survival rates, as cancers detected at an early stage are more likely to be treatable. Furthermore, increasing awareness and education about cancer prevention and the importance of screening can empower individuals to make informed health decisions [10]. The benefits of early cancer detection and prevention go beyond individual health; they also reduce the financial burden on the healthcare system. By preventing cancer or diagnosing it at an early stage when it is more treatable, resources that would have been spent on expensive treatments for advanced-stage cancer can be better allocated to improving overall healthcare infrastructure and services [11]. Public policy plays an instrumental role in shaping the effectiveness of cancer prevention programs. Effective policies are essential for coordinating national efforts to reduce cancer incidence, improving access to healthcare services, and raising public awareness about prevention strategies [12]. Policymakers have a responsibility to implement and enforce laws that regulate cancer risk factors such as tobacco use, alcohol consumption, and environmental exposures to carcinogens [13]. For instance, the introduction of tobacco control laws and public smoking bans can significantly reduce tobacco-related cancers, which are a growing concern in Nigeria. The Nigerian government has taken some steps toward addressing cancer, such as the National Cancer Control Plan (NCCP), which outlines strategies for cancer prevention, treatment, and palliative care [14]. However, the plan's effectiveness has been limited by challenges such as insufficient funding, lack of implementation capacity, and fragmented healthcare services. This underscores the need for a comprehensive and coordinated national cancer control policy that not only includes prevention and early detection programs but also ensures equitable access to treatment and care, particularly in underserved areas. A well-designed public policy framework should also prioritize cancer education and awareness campaigns to inform the population about the risks, symptoms, and benefits of early detection. Public health campaigns can help reduce stigma surrounding cancer and encourage individuals to seek medical help early, thus improving outcomes [15]. Furthermore, policymakers should prioritize investments in cancer research to better understand the genetic, environmental, and lifestyle factors that contribute to cancer in Nigeria, which could lead to more targeted prevention strategies. In addition to strengthening public health infrastructure, public policy should also aim at improving the availability and affordability of cancer treatment. The cost of cancer care is often prohibitive for many Nigerians, leading to delayed treatment or abandonment of treatment altogether [16]. By subsidizing cancer treatment and medications, implementing national health insurance schemes, and ensuring that health workers receive appropriate training in oncology, public policies can help bridge these gaps in access to care. The objective of this study is to explore the cancer burden in Nigeria, specifically the role of public policy in shaping effective cancer prevention programs. This study aims to identify the current trends in cancer prevention in Nigeria, assess the challenges in implementing preventive measures, and evaluate the effectiveness of existing public policies in reducing cancer incidence and mortality [17]. It seeks to provide recommendations for improving cancer prevention efforts through policy interventions, public health strategies, and healthcare reforms.

The study aims to analyze Nigeria's cancer incidence and mortality rates, identify challenges in cancer prevention and early detection, evaluate the effectiveness of existing public policies in promoting cancer prevention, explore the role of public policy in improving access to cancer screening, treatment, and palliative care services, and identify opportunities for strengthening cancer prevention efforts through public policy interventions. This study is significant because it provides a comprehensive examination of the current state of cancer prevention in Nigeria, focusing on the critical role of public policy in mitigating the cancer burden. By identifying gaps in existing cancer prevention programs and proposing actionable policy recommendations, the study aims to contribute to improving cancer care and prevention in Nigeria. Furthermore, the findings of this study can inform future cancer control strategies and serve as a basis for advocacy efforts aimed at increasing government and public sector investment in cancer prevention. Given the growing burden of cancer in Nigeria, enhancing cancer prevention strategies and public health policies is crucial for reducing the economic and social impact of the disease on Nigerian society. Additionally, the study has the potential to influence policymakers, health organizations, and advocacy groups by highlighting the importance of a multi-faceted approach to cancer prevention that includes public awareness, regulatory measures, and access to healthcare services. By improving cancer prevention and early detection, Nigeria can reduce the number of preventable cancer deaths and alleviate the financial burden on both individuals and the healthcare system. Ultimately, this study will contribute to advancing public health in Nigeria and improving the quality of life for cancer patients and their families.

Cancer Prevention Strategies in Nigeria

Cancer prevention in Nigeria consists of primary and secondary strategies, focusing on addressing modifiable risk factors, promoting healthy behaviors, and enhancing early detection through screening program [18]. Primary prevention involves reducing the incidence of cancer by addressing key risk factors through public health policies, lifestyle modifications, and vaccination programs. Key initiatives include the National Tobacco Control Act (NTCA), which aligns with the World Health Organization's Framework Convention on Tobacco Control (FCTC). Vaccination programs include Human Papillomavirus (HPV) and Hepatitis B vaccines, which are crucial for preventing virus-induced cancers. Diet and nutrition campaigns encourage the consumption of fruits, vegetables, whole grains, reducing processed and red meats, sugary beverages, and high-fat foods, and promoting regular physical activity through community-based fitness programs and media campaigns. Occupational and environmental safety regulations aim to reduce exposure to carcinogenic substances in workplaces and communities. Policies include strengthening regulations on industrial emissions and air pollution, promoting the use of personal protective equipment, implementing workplace health and safety guidelines, and encouraging proper waste disposal. Secondary prevention focuses on early detection and timely intervention to improve treatment outcomes and survival rates. Breast and cervical cancer screening programs, Pap smear and Visual Inspection with Acetic Acid (VIA), awareness campaigns, prostate-specific antigen (PSA) testing, colonoscopy and fecal occult blood tests (FOBT), and health education initiatives are key screening initiatives [19]. Community-based cancer screening initiatives provide free or low-cost cancer screening services, educate communities about cancer risk factors and early detection, and improve access to healthcare facilities for follow-up and treatment. By strengthening both primary and secondary prevention strategies, Nigeria can significantly reduce cancer incidence and mortality, improving overall public health outcomes.

Public Policy Initiatives for Cancer Prevention in Nigeria

Public policy initiatives in Nigeria have significantly impacted cancer prevention, with the National Cancer Control Plan (NCCP) 2018-2022 being designed to provide a comprehensive framework for cancer prevention, early detection, treatment, and palliative care [20]. The NCCP aims to reduce cancer incidence through strategic planning, infrastructure development, funding, and collaborations with local and international organizations. Key strategies include establishing cancer treatment centers, training healthcare workers, promoting awareness campaigns, and integrating with existing health policies [21]. The NCCP has led to increased awareness of cancer prevention, particularly through HPV vaccination and tobacco control initiatives. However, limited funding and implementation gaps have slowed the achievement of NCCP goals, highlighting the need for an updated and better-funded plan beyond 2022. Government investments in cancer research, prevention, and treatment have also been made, including the establishment of cancer treatment and research centers, provision of radiotherapy machines, and funding for cancer research. Public-private partnerships (PPPs) have played a vital role in expanding cancer prevention efforts by bridging the gap between government efforts and healthcare needs. However, challenges such as inadequate funding, high costs of screening and treatment, unequal distribution of healthcare services, and limited insurance coverage remain. Non-governmental organizations (NGOs) and international agencies play a critical role in cancer prevention in Nigeria by providing funding, technical support, and advocacy. Collaborations with NGOs and international agencies can enhance cancer prevention efforts through public awareness campaigns, funding support, and capacity building.

Challenges in Cancer Prevention and Policy Implementation

Cancer prevention in Nigeria faces significant challenges, including limited public awareness and health literacy, cultural beliefs and misconceptions about cancer, inadequate healthcare infrastructure, financial constraints, and policy execution [22]. To address these issues, targeted awareness campaigns should be implemented using local languages, engaging religious and community leaders, and integrating cancer education into schools and workplaces. Inadequate healthcare infrastructure and workforce are also significant issues, with a shortage of trained oncologists, radiologists, and pathologists, leading to delayed diagnosis and treatment. Rural areas face limited availability of screening and vaccination services due to poor road networks, transport barriers, and lack of trained health personnel. Financial constraints and uneven access to care are another challenge, with high costs associated with cancer screening and preventive healthcare services. The National Health Insurance Scheme (NHIS) does not comprehensively cover cancer prevention and treatment, leaving many to pay out-of-pocket for care. Weak policy implementation and political will are also significant issues, with gaps in enforcing tobacco control regulations and environmental safety policies. The National Tobacco Control Act (NTCA) faces challenges, while environmental carcinogen exposure regulations are poorly enforced. Sustained government commitment is essential to overcoming barriers in cancer prevention, but several challenges persist, such as inconsistent policy implementation, inadequate budgetary allocation, and limited political prioritization on cancer control. To address these challenges, Nigeria needs a multi-pronged approach involving government action, increased funding, improved healthcare infrastructure, targeted public awareness campaigns, and stronger enforcement of existing policies. By

strengthening policy implementation and ensuring equitable access to preventive services, Nigeria can reduce its cancer burden and improve public health outcomes [23].

Future Directions and Policy Recommendations

To effectively reduce cancer in Nigeria, future policies should focus on strengthening prevention strategies, expanding access to screening and vaccination, enhancing public awareness, improving healthcare infrastructure, and fostering collaborations between public and private sectors [24]. The National Cancer Control Plan (NCCP) needs to be updated with new strategies based on emerging data and best practices. Strengthening regulations on tobacco, alcohol, and environmental carcinogens is critical, as is establishing stronger enforcement of policies related to tobacco, alcohol, and carcinogen exposure. Expanding access to screening and vaccination programs is essential, including scaling up HPV and hepatitis B vaccination programs, integrating vaccines into routine immunity programs, and increasing investment in mobile and community-based screening services. Public awareness campaigns should be launched nationwide, using region-specific languages and cultural narratives to improve public understanding. Integrating cancer education into school curricula and workplace health programs can also help. Improving healthcare infrastructure and workforce capacity involves expanding oncology training programs, recruiting more healthcare professionals, and upgrading diagnostic and treatment facilities across Nigeria [25]. Private companies can play a significant role in funding cancer prevention programs, encouraging businesses to support free screenings and promoting workplace health policies. Seeking funding and technical assistance from global health organizations can provide expertise and financial support for cancer control efforts. A national commitment to cancer prevention will not only save lives but also reduce the economic burden of the disease on families and the healthcare system.

CONCLUSION

The fight against cancer in Nigeria requires a multifaceted and sustained approach, integrating robust public policy initiatives, effective prevention programs, and increased public awareness. Despite notable progress in implementing cancer prevention strategies such as tobacco control, vaccination programs, and screening initiatives, significant challenges persist. These include inadequate healthcare infrastructure, insufficient funding, and disparities in access to early detection and treatment services, particularly in rural areas. Public policy plays a critical role in shaping cancer prevention efforts, with the National Cancer Control Plan (NCCP) providing a framework for intervention. However, limited implementation capacity and financial constraints have hindered the full realization of its objectives. To improve cancer prevention outcomes, there is a need for strengthened multi-sectoral collaboration between government agencies, non-governmental organizations, private sector stakeholders, and international partners. Additionally, increased investment in cancer research, healthcare workforce training, and policy enforcement is crucial to enhancing early detection and reducing mortality rates.

Future efforts should focus on expanding public health education, making cancer screenings more accessible and affordable, and ensuring that policies are effectively enforced to address key risk factors. By adopting a comprehensive and inclusive approach, Nigeria can make significant strides in reducing its cancer burden and improving public health outcomes for its population.

REFERENCES

1. Abubakar, I., Dalglish, S.L., Angell, B., Sanuade, O., Abimbola, S., Adamu, A.L., Adetifa, I.M.O., Colbourn, T., Ogunlesi, A.O., Onwujekwe, O., Owoaje, E.T., Okeke, I.N., Adeyemo, A., Aliyu, G., Aliyu, M.H., Aliyu, S.H., Ameh, E.A., Archibong, B., Ezeh, A., Gadanya, M.A., Ihekweazu, C., Ihekweazu, V., Iliyasu, Z., Kwaku Chiroma, A., Mabayoje, D.A., Nasir Sambo, M., Obaro, S., Yinka-Ogunleye, A., Okonofua, F., Oni, T., Onyimadu, O., Pate, M.A., Salako, B.L., Shuaib, F., Tsiga-Ahmed, F., Zanna, F.H.: The Lancet Nigeria Commission: investing in health and the future of the nation. Lancet. 399, 1155–1200 (2022). https://doi.org/10.1016/S0140-6736(21)02488-0

2. Mustapha, M.I., Ali-Gombe, M., Abdullahi, A., Adenipekun, A., Campbell, O.B.: Financial Burden of Cancer on Patients Treated at a Tertiary Health Facility in South West Nigeria. J West Afr Coll Surg. 10, 23–29 (2020). https://doi.org/10.4103/jwas.jwas_4_22

3. Cancer | WHO | Regional Office for Africa, https://www.afro.who.int/health-topics/cancer

4. Alum, E.U., Tufail, T., Uti, D.E., Aja, P.M., Offor, C.E., Ibiam, U.A., Ukaidi, C.U.A., Alum, B.N. Utilizing Indigenous Flora in East Africa for Breast Cancer Treatment: An Overview. Anticancer Agents Med Chem. 2024 Sep 18. doi: 10.2174/0118715206338557240909081833. Epub ahead of print. PMID: 39297456.

5. Umana U. E, Ahunna C. O, Timbuak J. A, Ibegbu A. O, Musa S. A, Hamman W. O (2013). Dermatoglyphics and cheiloscopic patterns in cancer patients; A study in Ahmadu Bello University Teaching Hospital (ABUTH), Zaria, Nigeria. *Current research journal of biology sciences, 5, (5), 220-225.*

6. Uguru, N., Ogu, U., Uguru, C., Ibe, O.: Is the national health insurance scheme a pathway to sustained access to medicines in Nigeria? BMC Health Services Research. 24, 403 (2024). https://doi.org/10.1186/s12913-024-10827-1

7. Mulisya O, Sikakulya F. K, Mastaki M, Gertrude T, Mathe J, (2020). The challenges of managing ovarian cancer in the developing world. Case Reports in Oncological Medicine, 2020, (1), 8379628. https://doi.org/10.1155/2020/8379628.

8. Mohite, P., Yadav, V., Pandhare, R., Maitra, S., Saleh, F. M., Saleem, R. M., Al-malky, H. S., Kumarasamy, V., Subramaniyan, V., Abdel-Daim, M. M., & Uti, D. E. (2024). Revolutionizing Cancer Treatment: Unleashing the Power of Viral Vaccines, Monoclonal Antibodies, and Proteolysis-Targeting Chimeras in the New Era of Immunotherapy. ACS Omega, 9(7), 7277–7295. https://doi.org/10.1021/acsomega.3c06501

9. Znaor, A., Ryzhov, A., Losada, M.L., Carvalho, A., Smelov, V., Barchuk, A., Valkov, M., Ten, E., Andreasyan, D., Zhizhilashvili, S., Dushimova, Z., Zhuikova, L.D., Egorova, A., Yaumenenka, A., Djanklich, S., Tril, O., Bray, F., Corbex, M.: Breast and cervical cancer screening practices in nine countries of Eastern Europe and Central Asia: A population-based survey. Journal of Cancer Policy. 38, 100436 (2023). https://doi.org/10.1016/j.jcpo.2023.100436

10. Elmadani, M., Klara, S., Kiptulon, E.K., Andrade, D., Orsolya, M.: A systematic review of educational interventions to enhance cancer awareness and screening in individuals with intellectual disabilities: A mixed-methods approach. Research in Developmental Disabilities. 155, 104867 (2024). https://doi.org/10.1016/j.ridd.2024.104867

11. Zakari, S., Cleanclay, W.D., Bella-Omunagbe, M., Zakari, H., Ogbu, C.O., Uti, D.E., Ogunlana, O.O.: The role of SRC-3 in prostate cancer progression and implications for therapeutic targeting: A systematic review. J Pharm Pharmacogn Res. 12, 994–1007 (2024). https://doi.org/10.56499/jppres23.1916_12.5.994

12. Makau-Barasa, L.K., Greene, S., Othieno-Abinya, N.A., Wheeler, S.B., Skinner, A., Bennett, A.V.: A review of Kenya's cancer policies to improve access to cancer testing and treatment in the country. Health Research Policy and Systems. 18, 2 (2020). https://doi.org/10.1186/s12961-019-0506-2

13. Myers, D.J., Hoppin, P., Jacobs, M., Clapp, R., Kriebel, D.: Cancer rates not explained by smoking: a county-level analysis. Environmental Health. 19, 64 (2020). https://doi.org/10.1186/s12940-020-00613-x

14. Zubairu, I.H., Balogun, M.S.: Population-based cancer registries in Nigeria and the National Cancer Control Programme. Ecancermedicalscience. 17, 1592 (2023). https://doi.org/10.3332/ecancer.2023.1592

15. Manar M, Mohamed Hassan Elnaem M. H, Ejaz C., Ismail I., Jamalludin Ab R, Ahlam N K, How S H (2021). Cancer-associated thrombosis: a clinical scoping review of the risk assessment models across solid tumours and haematological malignancies. International Journal of General Medicine, 3881-3897.

16. Ramashia, P.N., Nkosi, P.B., Mbonane, T.P.: Barriers to Radiotherapy Access in Sub-Saharan Africa for Patients with Cancer: A Systematic Review. International Journal of Environmental Research and Public Health. 21, 1597 (2024). https://doi.org/10.3390/ijerph21121597

17. Alum, E. U., Ugwu, O. P. C., Obeagu, E. I.Cervical Cancer Prevention Paradox: Unveiling Screening Barriers and Solutions, J, Cancer Research and Cellular Therapeutics. 2024, 8(2):1-5. DOI:10.31579/2640-1053/182

18. Sharma, A., Alatise, O.I., O'Connell, K., Ogunleye, S.G., Aderounmu, A.A., Samson, M.L., Wuraola, F., Olasehinde, O., Kingham, T.P., Du, M.: Healthcare utilisation, cancer screening and potential barriers to accessing cancer care in rural South West Nigeria: a cross-sectional study. BMJ Open. 11, e040352 (2021). https://doi.org/10.1136/bmjopen-2020-040352

19. Obeagu E. I, Ahmed Y. A, Obeagu G. U, Bunu U. O, Ugwu O. P. C, Alum E. U (2023). Biomarkers of breast cancer: Overview. Int. J. Curr. Res. Biol. Med, (1), 8-16.

20. Nigeria Makes Strides in Cancer Control, Views Decentralization of Services to Expand Access, https://www.iaea.org/newscenter/news/nigeria-makes-strides-in-cancer-control-views-decentralization-of-services-to-expand-access

21. Jatho, A., Mugisha, N.M., Kafeero, J., Holoya, G., Okuku, F., Niyonzima, N., Orem, J.: Capacity building for cancer prevention and early detection in the Ugandan primary healthcare facilities: Working toward reducing the unmet needs of cancer control services. Cancer Med. 10, 745–756 (2020). https://doi.org/10.1002/cam4.3659

22. Ugwu O P C, Anyanwu C N, Alum E U, Okon M B, Egba S I, Uti D E, Awafung E A. (2024). CRISPR-Cas9 Mediated Gene Editing for Targeted Cancer Therapy: Mechanisms, Challenges, and Clinical Applications. Newport International Journal Of Biological And AppliedSciences,5(1):97-102. https://doi.org/10.59298/NIJBAS/2024/5.1.9297102

23. Ogundeji, Y.K., Tinuoye, O., Bharali, I., Mao, W., Ohiri, K., Ogbuoji, O., Orji, N., Yamey, G.: Is Nigeria on course to achieve universal health coverage in the context of its epidemiological and financing transition? A knowledge, capacity and policy gap analysis (a qualitative study). BMJ Open. 13, e064710 (2023). https://doi.org/10.1136/bmjopen-2022-064710

24. Sinumvayo, J.P., Munezero, P.C., Tope, A.T., Adeyemo, R.O., Bale, M.I., Nyandwi, J.B., Haakuria, V.M., Mutesa, L., Adedeji, A.A.: Advancing Vaccinology Capacity: Education and Efforts in Vaccine Development and Manufacturing across Africa. Vaccines (Basel). 12, 741 (2024). https://doi.org/10.3390/vaccines12070741

25. Oluwasanu, M.M., Adejumo, P.O., Sun, Y., Onwuka, C., Ntekim, A., Awolude, O.A., Aniagwu, T.I., Kotila, O.A., Brown, B.J., Ogbole, G.I., Dzekem, B.S., Ajani, O., Huo, D., Babalola, C.P., Ojengbede, O., Hammad, N., Olopade, O.I.: Challenges and Recommendations for Improving Cancer Research and Practice in Nigeria: A Qualitative Study with Multi-Stakeholders in Oncology Research and Practice. Cancer Control. 31, 10732748241298331 (2024). https://doi.org/10.1177/10732748241298331

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