Summary

imPACT Review Report

The Gambia

February 2025

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Following a request received from the Minister of Health of the Republic of The Gambia in October 2023, an imPACT Review was conducted from conducted from 17 to 23 March 2024 by the Programme of Action for Cancer Therapy (PACT) of the International Atomic Energy Agency (IAEA), the World Health Organization (WHO), and International Agency for Research on Cancer (IARC). The Review included a two-day workshop to identify priorities and support the development of the National Cancer Control Strategy (NCCS) 2024–2029 that took place from 21–22 March 2024. The imPACT Review and the support to develop the NCCS were organized within the framework of the WHO-IAEA Joint Programme on Cancer Control. A team of international experts, nominated by the IAEA, WHO and IARC, held technical discussions with key stakeholders and visited health care facilities providing cancer care in the country to develop a comprehensive report, including findings and recommendations for the Government and priority interventions to be included in the NCCS.

Main findings

1. Cancer burden

The Gambia is experiencing a growing burden of non-communicable diseases (NCDs), which were estimated to contribute to 34% of all deaths in 2018. Cancer accounts for 4% of all deaths in The Gambia. According to IARC's GLOBOCAN estimates, there were approximately 1196 new cancer cases in 2022 (520 in men and 676 in women) and 899 cancer deaths (440 in men and 459 in women). The top five cancers are cervical, liver, breast, lung and prostate in that order, with viral infections estimated to contribute to more than half of all cancers. It is further estimated that by 2030, cancer incidence and mortality will increase by more than 40%, resulting in 1703 new cancer cases and 1295 cancer deaths.

2. Health system overview

The health system architecture in The Gambia is based on a Primary Health Care (PHC) model with a three-tier structure with opportunities to integrate cancer prevention and control interventions. While the Ministry of Health, at the central level, is responsible for setting health policies, regulations, standards, research and mobilizing resources, the secondary level, consisting of Regional Health Directorates, implements policies and oversees the provision of healthcare delivery. At the lowest level, a network of

health centres, health posts, community clinics and village health services have the potential to offer increased access to cancer prevention, screening and early detection services, as well as to promote timely referral for diagnosis and treatment.

Financing for health care is mainly through Government tax revenue allocated through an annual input-based line-item budgeting approach. The Government has also introduced a mandatory National Health Insurance Scheme (NHIS), which has been piloted in one facility providing maternal and child health services and is due for expansion to select clinics. This has the potential of expanding access to comprehensive cancer care, including the planned introduction of radiotherapy services.

3. Cancer control planning and governance

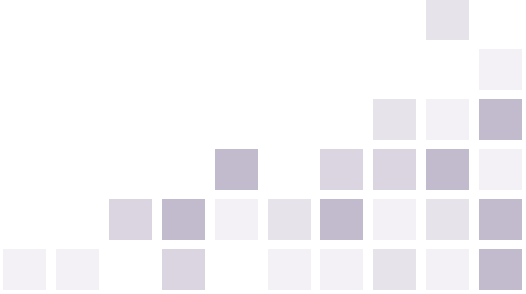
The National Cancer Control Programme (NCCP), housed within the Directorate of Health Services in the Ministry of Health and established in September 2022, is leading the development and implementation of The Gambia's first National Cancer Control Strategy (NCCS) for the period 2024–2029. The NCCS covers strategic activities for cancer prevention, screening, early detection, diagnosis, treatment, palliative care, surveillance, research, strategic information systems, health workforce and infrastructure capacity building, multi-sectoral coordination, advocacy, and resource mobilization. The imPACT Review team facilitated a cancer control prioritization exercise leading to the identification of a set of strategic actions to inform the NCCS implementation plan.

There is a need to strengthen the governance of the NCCS through the establishment of a National Steering Committee to oversee its implementation. Additionally, opportunities to strengthen the NCCP's capacity should be explored by connecting to regional and global partners and cancer control networks. Ongoing efforts to enhance sustainable financing for cancer care through the NHIS have the potential to further strengthen cancer prevention and control.

4. Cancer registration and surveillance

The Gambia's National Cancer Registry (NCR) was established in 1986. It was hosted at the Medical Research Council Unit The Gambia at the London School of Hygiene and Tropical Medicine and it stood out as the sole population-based cancer registry in sub-Saharan Africa with nationwide coverage. Regrettably, the Gambia NCR ceased operations in December 2019 due to lack of funding following the culmination of the Gambia Hepatitis Intervention Study (GHIS) that had been financially sustaining its activities.

It is, however, noteworthy that discussions held during the imPACT Review sparked renewed interest in the NCR moving forward. There is an opportunity to strengthen efforts through training, professional development and mentorships by leveraging IARC Regional Hubs in the African region, established as part of the Global Initiative for Cancer Registry Development.



5. Primary prevention

The Gambia has identified five groups of risk factors responsible for cancer, namely: viral infections (HPV, HBV, HCV, HIV), harmful use of alcohol, unhealthy diet, tobacco use, physical inactivity, and air pollution. The top three cancer-related risk factors are infections, alcohol and occupational risk with an estimated Population Attributable Fraction (PAF) of 51.3%, 6.6% and 0.6%, respectively. Significant progress has been made in cancer prevention, including integrating HPV vaccination[1] into the country's national Expanded Programme on Immunisation (EPI), enhancing uptake of Hepatitis B vaccine birth-dose[2], strengthening the HIV care and treatment programme[3] and enforcement of the 2016 Tobacco Control Act. There is, however, a need to intensify these efforts in line with global commitments and the proposed National Cancer Control Strategy.

In view of the significant burden of infection-related cancers, there is a need to intensify the scale up of HBV and HPV vaccination initiatives through the development of a strategic plan to progressively increase HBV vaccine birth-dose coverage from current 18% to 80%, and adoption of the HPV single-dose vaccination protocol. Additionally, the country should consider developing a communication plan to increase awareness of HBV and HPV prevention at the community level, complemented with a training programme for health care professionals aligned to new national HPV guidelines. It is equally important to develop appropriate regulations to strengthen enforcement of tobacco control interventions as well as to implement community wide public education and awareness campaigns on the benefits of a healthy diet and physical activity.

6. Early detection

The Ministry of Health is striving to improve access to screening and early diagnosis services for the most common cancers in the country, including cervical, breast, prostate and childhood cancers. The National Strategy for the Prevention and Control of Cervical Cancer 2016–2020 sought to improve access to screening, expand in-country pathology and establish the first centre for radiotherapy in the country. Its implementation was, however, limited by lack of funding. There is a renewed focus to address the high cervical cancer burden in the proposed NCCS 2024–2029, whose second strategic objective aims to strengthen and increase by 20% the number of facilities providing screening and early detection with referral for cancer care. National cervical cancer screening guidelines aligned to the WHO guideline for screening and treatment of cervical pre-cancer lesions for cervical cancer prevention have been developed and were undergoing validation at the time of the imPACT Review country mission.

Noting the significant burden of cervical cancer in The Gambia and the need to align with the recommendations of the WHO global strategy for elimination of cervical cancer, consideration should be given to the adoption of HPV testing as the primary screening method coupled with training for healthcare workers as well as equipping health facilities for testing and treatment of pre-cancerous lesions. There is also a need to strengthen the capacity for early diagnosis for the high burden cancers through training

[1] Introduced in 2019 as a two-dose regimen for girls between 9 and 13 years old following an HPV vaccination demonstration project across different regions between 2014 and 2017; 75% coverage in 2022.

[2] Introduced in 2009; 18.5% coverage in 2020.

[3] New HIV infections reduced by half (adults) and 75% (among children) between 2015 and 2020.

of health care providers at primary health care centres, community health education to recognize early signs and symptoms, establishment of a patient navigation programme while strengthening health information systems to track referrals to cancer care.

7. Diagnosis — diagnostic imaging and nuclear medicine

There is uneven distribution of diagnostic imaging services across public and private facilities in the country. General radiography and ultrasound services are accessible throughout the country, but modalities such as CT, MRI and endoscopy are concentrated within the Greater Banjul Area. A significant challenge noted was the lack of functional equipment in the majority of the facilities visited. Additionally, most machines had been received as donations without accompanying service contracts. Unavailability of spare parts, coupled with an interrupted power supply, further add to the reported downtimes for most equipment.

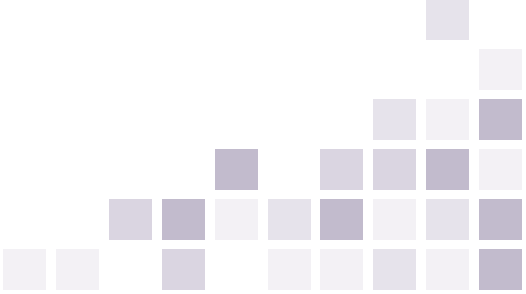
Currently, there are no nuclear medicine services available.

Availability of human resources is largely limited, with reliance on foreign workforce (e.g. two expatriate radiologists) and a resulting prolonged turn-around time. To strengthen diagnostic imaging services, priority should be given to procuring equipment with long-term maintenance contracts, ensuring regular supply of radiological consumables and the development of a skilled workforce trained in general radiography, as well as in specialized techniques, such as mammography and interventional radiology. There is an urgent need to establish a national and hospital-based radiation protection programme with the appropriate designation of hospital-based radiation safety officers.

8. Diagnosis — pathology and laboratory services

Histopathology and cytology services are only available at the Edward Francis Small Teaching Hospital (EFSTH) and lack an established system for collecting samples from other lower levels of care. Basic biochemistry and haematological tests are available at all four-general hospitals, one district hospital, the teaching hospital and two private facilities. Essential tests, such as immunohistochemistry for breast cancer types and treatment options, biomarkers and flowcytometry, are not available in The Gambia.

There is a shortage of staff to provide pathology services with available personnel (two pathologists, a medical microbiologist and two haematologists) limited to EFSTH. Notable challenges in the provision of histopathology services include frequent stock-outs of laboratory consumables, inadequate equipment, and lack of maintenance contracts. The Gambia would benefit from developing a national expansion plan, including infrastructure, equipment, workforce training and laboratory supplies needs. In the short term, there is a need to establish a training programme on staining and preparation of histopathology slides for laboratory scientists and technicians at district hospitals in order to reduce the turn-around time for pathology results.



9. Treatment — medical oncology

Medical oncology services are limited to the hepato-gastro-enterology and obstetrics gynaecology departments of the EFSTH. The country lacks human resources specialized in oncology and has no specific infrastructure or equipment dedicated to oncology. There is limited inclusion of cancer medicines within the national essential medicines list.

Efforts to strengthen cancer treatment should focus on establishing an appropriate hospital facility for the preparation and administration of chemotherapy, the provision of personal protective equipment, the development of protocols and guidelines on prevention of chemotherapy-induced toxicities and the establishment of standard operating procedures that include waste management. Additionally, there is a need to develop evidence-based clinical guidelines for the three most common cancers (cervical, breast and liver) to guarantee the standard of care, and to enhance patient access with the inclusion of cancer care in the newly introduced national health insurance scheme. A short- to medium -term oncology workforce development plan would also be beneficial.

10. Treatment — radiation oncology

As part of the National Cancer Control Strategy 2024–2029, The Gambia plans to introduce radiotherapy services. Additionally, the country applied to join the IAEA Rays of Hope initiative in May 2023. It is noteworthy that cervical cancer is the most commonly diagnosed cancer in the country, accounting for 27% of all new cases, requiring radiation therapy for cure or palliation. External beam radiation therapy (also known as 'teletherapy') and brachytherapy offer safe and effective treatment options for cervical cancer. Radiotherapy improves local control of the cancer in the pelvis and leads to greater survival rates[4].

To establish radiation oncology services in The Gambia, there is a need to strengthen the existing capacity for cancer care. As a first step, a national technical working group should be created to oversee the establishment of radiation therapy services guided by a contextualized national master plan. Additionally, a legal and regulatory framework for radiation safety needs to be established by an appropriately designated body in the country. Further, the country needs to invest in relevant human resources as per the existing IAEA guidance of one radiation oncologist treating 200–250 patients per year and one medical physicist for every 400 patients treated annually. Additionally, there is a need for four radiotherapy technicians (RTTs) per mega-voltage (MG) unit treating up to 50 patients daily.

11. Treatment — surgical oncology

The most common cancers in the country are largely amenable to surgery, yet there is no established system for cancer surgery, and infrastructure, workforce and surgical commodities are limited. There are no certified surgical oncologists in public or private hospitals, with surgical care being provided by general surgeons and other specialists. Additionally, the available expertise is limited to EFSTH. There is no training programme or sub-specialization in surgical oncology in the country. Multi-disciplinary tumor boards where surgeons can participate are yet to be established. Additionally, there are no clinical practice guidelines for the management of the most prevalent cancers.

[4] Details available at www.iaea.org/sites/default/files/19/10/detecting-and-treating-cervical-cancer-using-diagnostic-imaging-techniques-and-radiotherapy-23-10-2019.pdf (IAEA).

Efforts to improve surgical care for cancer patients should leverage the recently launched sub-specialization programme in surgical oncology by the West African College of Surgeons (WACS). In addition, there is a need to establish multi-disciplinary teams to lead the process of adaptation and dissemination of resource-stratified evidence-based management guidelines. It is equally important to increase the capacity of national and regional hospitals to provide cancer surgery linked to a patient navigation support programme focused on the most prevalent cancers.

12. Treatment — paediatric oncology

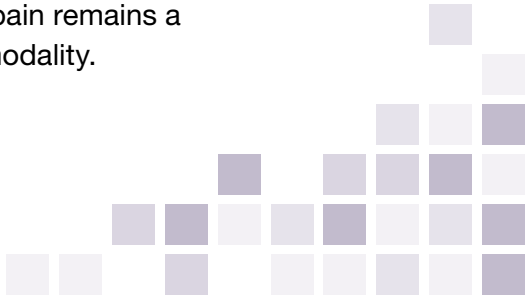
The treatment of childhood cancers in The Gambia is limited to the EFSTH's general paediatrics department, which has a capacity of 30 beds but lacks a paediatric oncology unit. An expatriate haematologist and paediatric oncologist are available, supported by the World Bank. Certain services related to treatment of childhood cancers are free of charge, such as admission costs, basic investigation and support services, such as transfusions. Drugs for the treatment of childhood cancers are generally not available in the public sector, while management of treatment-related toxicities remains a real challenge due to the unavailability of drugs for supportive care. Except for whole blood, other blood products (platelet concentrates, fresh frozen plasma, packed red blood cells) are not available. The absence of psycho-social support services is a notable gap.

There is a need to promote early detection of childhood cancers in the new NCCS, aligned with the WHO Global Initiative for Childhood Cancer. Additionally, the country should strengthen the capacity of EFSTH to provide childhood cancer care by establishing a dedicated paediatric oncology unit and deploying relevant trained workforce. In order to expand access to cancer medicines, the country should consider leveraging the Global Platform for Access to Childhood Cancer Medicines.

13. Palliative care

There is limited availability of palliative care services, despite the burden of cancer and other life-limiting conditions. Access to opioids is limited to injectable morphine available in secondary and tertiary level hospitals. The country also lacks national guidelines for palliative care or pain management. The identified priority actions for palliative care within the NCCS include the development of guidelines for palliative care services; establishment of a quality assurance mechanism; awareness campaigns on palliative care targeting the public and healthcare workers; strengthening of community- and home-based palliative care services and establishment of social support services for cancer patients.

These strategic priorities could benefit from mapping of key partners and a costing exercise to inform decision-makers and resource mobilization efforts. In addition, there is a need to include interventions related to initial and continuing training, availability of essential medicines and palliative care research. There is a national palliative care association that advocates for palliative care. This underscores the importance of Government-led initiatives in developing palliative care. Access to opioids for the relief of moderate to severe pain remains a challenge with the injectable form being the only available modality.



14. Radiation safety considerations

A national policy and strategy expressing the long-term commitment of the Government to radiation safety is yet to be established in The Gambia. The National Environment Management Act (1994) contains comprehensive provisions for the protection of the environment, with limited provisions addressing radiation safety within the context of environmental protection. The Act designates the National Environmental Agency (NEA) as the authority in charge of enforcing these provisions, which is not compliant to IAEA safety standards and relevant international legal instruments.

There is a need to finalize and enact the National Environment Management Bill establishing the governmental, legal and regulatory framework for radiation safety. This should be further complemented by establishing appropriate regulations, particularly those related to occupational and medical exposure control.

15. Radioactive materials security considerations

The Gambia, with IAEA support, has developed a draft regulation on radiation safety and security of radioactive material. Though a standalone legislative and regulatory framework for security of radioactive material is yet to be established, an amendment was done in the draft National Environment Management Bill to incorporate both radiation safety and security of radioactive material.

The country has an approved Integrated Nuclear Security Sustainability Plan (INSSP). There is a need to update this plan and to pursue the implementation of agreed nuclear security improvements.

Key priority recommendations

National cancer control planning and governance

- Prioritize finalization and endorsement of the NCCS, including a full costing, development of a phased action plan for its implementation and a monitoring and evaluation framework. Consideration should be given to specific targets for all identified priority actions with specific indicators.
- Conduct an exchange or learning visit to a country with a well-developed NCCP (consideration could be given to Kenya, Zambia or Ghana) to gain some practical understanding on critical enablers for a successful cancer control programme.
- Establish the National Cancer Steering Committee, including terms of reference, frequency of meetings, reporting structure, to oversee the implementation and monitoring and evaluation of the NCCS.

Cancer registry and surveillance

- Establish a national committee or task force to oversee the reactivation and implementation of all cancer registration and surveillance efforts.
- Advocate for the establishment of a dedicated budget for the National Cancer Registry (NCR) at the national level.
- Recruit relevant personnel with strong leadership skills and expertise in cancer surveillance and registration to manage the NCR once re-activated.

Prevention

- Implement the HPV single-dose vaccination protocol as per the 2022 WHO guidelines.
- Develop a strategic plan to progressively increase the coverage of HBV vaccine birth-dose from 18.5% to 80% by the year 2030.
- Enforce the existing Tobacco Control Act with the development and application of appropriate decrees and regulations.

Early detection

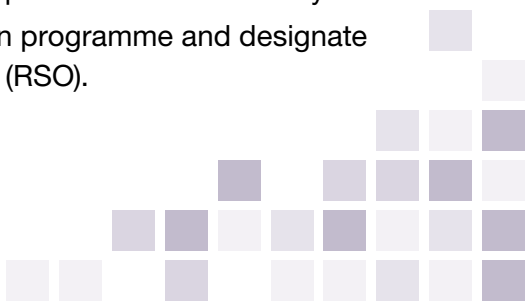
- Finalize and implement the national cervical cancer prevention and control guidelines. Consider endorsement of HPV testing as the preferred primary screening test, and thermal ablation as the preferred treatment modality in eligible women.
- Establish a breast health awareness programme focused on the importance of timely referral and appropriate care to promote early detection and downstaging of diagnosed breast cancer cases in line with the Global Breast Cancer Initiative.
- Gradually integrate cervical cancer screening with other services, such as HIV care, sexual and reproductive health, family planning, ante-natal and post-natal care.

Diagnosis (pathology and laboratory services)

- Develop a costed workplan for the repair and maintenance of all the broken-down equipment at the EFSTH histopathology laboratory and expansion of available services through additional equipment such as microtomes, tissue processors and others.
- Establish a training programme targeting 3–5 laboratory scientists or technicians in each district hospital on staining and preparation of histopathology slides for referral and reporting to EFSTH pathologists in order to reduce turn-around time for results.
- Develop and implement a sustainable laboratory supply chain management system for effective and efficient laboratory service to prevent stockouts of laboratory consumables. Consideration should be given to pooled procurement to ensure a more cost-effective and sustainable supply.

Diagnosis (diagnostic imaging and nuclear medicine)

- Develop short-term online and onsite training for radiographic technicians. The training should include general radiography, mammography techniques and radiation safety.
- Establish a national and hospital-based radiation protection programme and designate appropriate personnel to serve as a radiation safety officer (RSO).



- Establish a standardized method of patient referral for imaging and reporting and transmission of findings.

Treatment (medical oncology)

- Initiate an intensive training programme in the management of the three most common cancers (cervical, liver and breast) in The Gambia, for gynaecologists and gastroenterologists.
- Develop national harmonized guidelines for the three most common cancers, with consideration given to adoption or adaptation of existing regional guidelines such as those developed by the African Cancer Coalition.
- Develop a human resources development plan for all cadres involved in the fight against cancer (medical oncologist, paediatric oncologist, pathologist, radiation oncologist, palliative care physician, psychologist, oncology nurses, lab cytotechnician, oncology surgeon, medical physicist, etc.).

Treatment (surgical oncology)

- Institutionalize multidisciplinary teams and mortality and morbidity meetings. To mitigate the current shortage of specialists, consider the use of virtual platforms such as AFRONET.
- Adapt and disseminate the resource-stratified evidence-based management guidelines for treatment of patients with cancer, for instance through the NCCN Harmonized Guidelines™ for Sub-Saharan Africa.
- Initiate a pilot patient navigation programme focused on one or two of the most prevalent cancers, such as breast or cervical cancer, to improve treatment outcomes.

Treatment (paediatric oncology)

- Prioritize interventions for childhood cancers aligned to the WHO Global Initiative for Childhood Cancer in the new National Cancer Control Strategy currently being drawn up.
- Create a dedicated paediatric oncology unit at EFSTH and strengthen its human resources.
- Provide access to cancer and supportive drugs against childhood cancers by expanding the list of cancer drugs included in the essential drugs list.

Palliative care

- Develop or adapt from existing regional frameworks (e.g., African Palliative Care Association or Hospice Africa Uganda), a national palliative care guide to support the activities of health care providers.
- Initiate a morphine reconstitution programme to ensure oral morphine solution is available for the effective management of cancer pain in secondary and tertiary care hospitals.
- Appoint a palliative care coordinator within the NCCP to champion palliative care services and coordinate engagement with stakeholders, including the national palliative care association.

The WHO–IAEA–IARC joint activities on cancer control

In March 2009, WHO and IAEA signed arrangements at the Director-General level to implement a Joint Programme on Cancer Control. The main purpose of this arrangement is to coordinate activities and resources to provide evidence-based and sustainable support to comprehensive cancer control programmes, particularly in low- and middle-income countries. The imPACT Review is carried out as a comprehensive assessment of national cancer control capacities and needs. It is a partnership effort between the International Atomic Energy Agency (IAEA), the International Agency for Research on Cancer (IARC) and the World Health Organization (WHO). Where relevant, other partners are involved, such as the Union for International Cancer Control (UICC) and the United Nations Office on Drugs and Crime (UNODC). The IAEA Division of Programme of Action for Cancer Therapy (PACT) is responsible for coordinating the imPACT Reviews and for mobilizing the resources for their implementation.

Click here to read more about the imPACT mission to The Gambia: New Member State The Gambia Lays Foundations to Safely Introduce Public Radiotherapy for Cancer Control | IAEA.

IAEA International Atomic Energy Agency

World Health Organization

International Agency for Research on Cancer
World Health Organization

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