



Summary

Following a request received from the Ministry of Health (MoH) of the Democratic Republic of Congo in June 2018, an [imPACT Review](#) was conducted from 28 May to 26 November 2021 by the [Programme of Action for Cancer Therapy \(PACT\)](#) of the International Atomic Energy Agency (IAEA), the World Health Organization (WHO) and IARC.

The imPACT mission was organized within the framework of the [WHO-IAEA Joint Programme on Cancer Control](#) to assess DRC's cancer control and prevention system and, due to coronavirus-related travel restrictions, was conducted virtually.

A team of international experts, nominated by the IAEA, WHO and IARC, held technical discussions with key stakeholders in the area of cancer, and virtually visited 21 of the principal cancer facilities in the country.

Main findings

1. **Cancer Burden:** According to the World Health Organization (WHO), non-communicable diseases (NCDs) accounted for 48% of deaths in the Democratic Republic of Congo (DRC) in 2018. The main causes of death attributed to NCDs were cardiovascular diseases (10%) and cancer (5%)¹. According to estimates from the International Agency for Research on Cancer (IARC) GLOBOCAN, some 48 839 new cancer cases (21 617 in men and 27 222 in women) and 34 412 cancer deaths (15 571 in men and 18 841 in women) occurred in 2020.
2. **National Cancer Control Planning and Governance:** In 2020 was created the National Cancer Control Center (NCCC), a coordinating structure acting as the national cancer control programme, to strengthen governance and develop a National Cancer Control Plan (NCCP). In July 2021, DRC adopted the regional framework for the cervical cancer elimination strategy.
3. **Cancer Registry and Surveillance:** DRC does not have a population-based cancer registry (PBCR) or a hospital-based cancer registry (HBCR). One of the NCCC priorities is to develop a cancer registry in DRC and organize the cancer information system.
4. **Prevention:** Cervical cancer is one of the leading cancers among women in DRC, although the vaccine against the Human Papilloma Virus (HPV), has not yet been introduced. DRC submitted its application to the Global Alliance for Vaccines and Immunization (GAVI) for support. Hepatitis B virus (HBV) is endemic



IAEA



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and remains the leading cause of liver cancer. In February 2021 DRC endorsed, with the support of WHO, a strategic plan to combat hepatitis. Vaccination against the HBV in newborns is effective, with coverage of the three doses estimated at 95%.

5. **Early Detection:** Early detection, including screening, of cervical cancers is carried out through sporadic campaigns and during gynecological consultations. The screening methods used are cervical smear and, above all, visual inspection after the application of acetic acid (VIA). Most hospitals in the country lack equipment for the diagnosis and treatment of precancerous cervical lesions. To date, there is no national programme to evaluate and monitor the early detection of the priority cancers. Early detection is also hampered by insufficient human resource capacity.
6. **Diagnosis:** Diagnostic services are mainly located in Kinshasa. The biological, serological and biochemical examinations necessary for the diagnosis and follow-up are routinely performed in most of the facilities interviewed. Pathology and cytology have recently been developed in DRC. There are ten functional laboratory units that provide the basic examinations necessary for the histological cancer diagnosis. Specialized pathology examinations, such as immunohistochemistry, are not routinely carried out due to the lack of reagents, equipment and training.
7. **Treatment:** In DRC cancer surgery is performed by general surgeons, gynecologists, and other organ specialists (urology, orthopedics and ophthalmology) and a surgical oncologist. Chemotherapy is carried out in the various departments and especially in internal medicine departments. Access to anti-cancer medicines is limited since medicines are not all part of the essential medicines list; availability is restricted. DRC has no radiotherapy in the public sector but one private radiotherapy center.
8. **Education and Training:** There are national training capacities at universities, medical faculties, advanced training institutes. Each year, the country trains an average of 1000 doctors at fifteen medical faculties. Some medical faculties offer post-graduate education for doctors as part of their specialist training. The Faculty of Medicine in Kinshasa organizes training in some twenty medical and surgical specialties.
9. **Palliative Care:** In DRC there is no unit or department dedicated to Palliative Care. However, some public facilities offer pain management and organize practical skills-building courses. Morphine, in injectable and tablet forms, is on the essential medicines list (unlike the syrup form). There is no policy on access to opioids. At the organizational level, there is no national policy on PC but a guide to orient integration of PC has been finalized awaiting endorsement by the MoH technical committee.
10. **Impact of COVID-19 on Cancer Control:** Since the beginning of the pandemic, protective equipment has been distributed and hygiene measures and protocols have been reinforced. Protective measures have been activated with triage systems and isolation areas in healthcare facilities. The pandemic has affected the availability of health professionals, disrupting the continuity of clinical services and impacting cancer patients. The implementation of prevention and early diagnosis programmes has been delayed as the MoH departments in charge of ad hoc programmes have been redeployed to fight against COVID-19.
11. **Radiation Safety Infrastructure:** DRC established a governmental, legal, and regulatory framework for safety through Law 017/2002 (under revision) and implementing decrees. National Committee for the Protection against Ionizing Radiation (CNPRI) is the national regulatory body for radiation safety. The CNPRI is under the Office of the President and under the tutelage of the Minister in charge of the Scientific Research. The CNPRI has access to sufficient financial resources but is lacking operational assets to fully discharge its obligations.



12. Radioactive Material Security Considerations: The Government approved the Integrated Nuclear Security Support Plan (INSSP) in 2011. The last review mission of the INSSP took place from 20 to 21 May 2021. The country is in the process of finalizing the draft regulations on the security of radioactive materials in use and storage, as well as the draft decree on the physical protection of nuclear facilities. A decree establishing the national nuclear security council is being finalized. DRC plans to conduct a national threat assessment. DRC participates in the Regulatory Infrastructure Development Project (RIDP-AFR) for Africa launched in January 2020.

Key priority recommendations

National Cancer Control Planning and Governance

- Support the NCCC in the development of the national cancer control plan (NCCP), which would include objectives and priorities, monitoring indicators, a timetable, and define resources and parties responsible for implementation.
- Encourage the creation of public-private partnerships guaranteeing regulation of services (compliance with standards, quality) and costs of care (with access to the underprivileged).
- Integrate cancer control activities into the essential package of health services and report in the National Health Information System (NHIS).

Cancer Registration and Surveillance

- Establish population-based cancer registry (PBCR) based on data collection in the main tertiary hospitals in all provinces of the country. Thus, in collaboration with the management of the main hospitals, designate focal points, identify premises in these hospitals, equip and train designated focal points and the registry staff on the principles and methods of cancer registration and on the use of Canreg5 software.
- Revise the ministerial decree creating the NCCC by including the Cancer Registry as a division, provide with premises, an operating budget and human resources.
- Ensure the progressive establishment, according to available resources, of PBCRs, according to the zones proposed below: for Kinshasa, a PBCR covering the Lukunga district, and a PBCR covering the Mount Amba district; for Lubumbashi, a PBCR covering the whole city; finally, at the level of the NCCC, a PBCR in charge of coordinating and compiling the results of the above-mentioned PBCRs.

Prevention

- Implement an HPV vaccination programme (girls aged 9-13 years), in accordance with the guidelines of the national strategy for the control of cervical and breast cancers, in line with the WHO global strategy.
- Integrate HBV vaccination within 24 hours of birth for 100% of newborns (WHO recommendation).

Early Detection

- Develop a budgeted implementation plan for early detection and screening of priority cancers
- Raise awareness among general practitioners and health workers in general practice in urban and peripheral areas as well as the general population about the warning signs of colorectal, prostate and pediatric cancers.
- Promote early clinical diagnosis of colorectal, prostate, skin and pediatric cancers.



- Equip hospitals with human resources, mammography equipment and laboratories for the adequate and timely diagnosis of breast cancer.
- Strengthen public awareness of the warning signs of breast cancer and the practice of breast self-examination.
- Strengthen awareness and training of health personnel on the practice of systematic annual physical breast examination of women who come for a consultation and include this examination as a full-fledged method for the early detection of this cancer.
- Strengthen the capacity of hospitals and health centers (HR, equipment, pathology) to screen and treat precancerous lesions.
- Implement an information and awareness building campaign, targeting at-risk populations, health professionals on cervical cancer screening after ensuring staff trained in VIA and treatment by cryotherapy or thermal ablation; capacity in equipment to treat precancerous lesions; capacity in colposcopy, and capacity for cervical cancer treatment.
- Implement a project to make cervical cancer screening available in public health facilities based on the “screen and treat” strategy and using either visual tests or high-performance tests (HPV test) as recommended by WHO.
- Integrate cervical cancer screening into HIV treatment centers and the family planning programme.

Diagnosis: Diagnostic Imaging and Nuclear Medicine

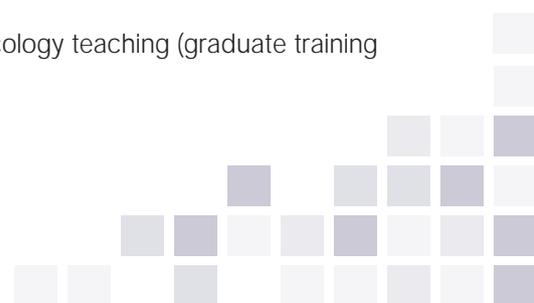
- Develop a national strategy for maintenance and servicing contracts of equipment, covering biology, pathology, endoscopy, radiology and nuclear medicine.
- Renew the equipment of the CUKs, HGRK, Ngaliéma, Monkole, CULs, CUKIs, Bukavu Reference Hospital and Panzi Hospital (biology and pathology laboratories, endoscopes, CT, SPECT/CT) and ensure the regular availability of consumables and reagents
- Create multidisciplinary tumor boards for cancer diagnosis and treatment.
- Standardize paramedical training by the ISTM for nurses and technicians by improving the theoretical and practical content as well as setting up specific training in palliative care.

Treatment

- Increase public access to the radiotherapy services in Nganda, including through potential collaboration with the existing private sector facilities.
- Support NCCC efforts to introduce public radiotherapy service in Kinshasa and plan the expansion of radiotherapy services, in collaboration with the IAEA, to the provinces.
- Plan national restructuring of surgical services, through the assurance of sufficient hospital operative volumes to ensure efficiency and quality of care.
- Provide continuing education for adult and pediatric medical oncologists, radiotherapists and surgeons in specialized centers.
- Establish medical oncology departments and pediatric cancer care centers.
- Add to the essential medicine list (EML), drugs for chemotherapy and hormonal therapy, in line with the WHO EML.
- Improve the management of specific cancer treatments by strengthening treatment guidelines and training of health workers in DRC.

Education and training

- Increase the number of general practitioners, biology, pathology and radiology technicians trained to meet the country's growing cancer needs.
- Introduce in the medical faculties of the CUKs, CULs and CUKIs oncology teaching (graduate training



programmes), the specialty of medical oncology as an independent specialty, a specialization in surgical oncology as a surgical sub-specialty, and additional training for nurses in palliative care at the Faculty of Public Health in Kinshasa.

- Establish a list of priority training needs for doctors, technicians and physicists for nuclear medicine, radiotherapy and medical physics.

Palliative care

- Establish a technical working group, under the NCCC, to evaluate the PC needs in referral hospitals, private clinics and at the community level, ensure effective integration of PC in cancer care and validate the established guide on palliative care (PC).
- Develop a standardized training programme with a basic level (awareness building) and an intermediate level (in-depth) for general practitioners, specialists, nurses, social workers, clerics and traditional doctors.
- Strengthen the availability of PC at referral hospitals with the creation of PC units and explore home-based care through public-private arrangements.
- Introduce morphine syrup in the essential medicines list.

Radiation safety infrastructure

- The Government should ensure that the currently revised nuclear law addresses all the gaps identified and that the CNPRI have access to adequate operational assets for discharging their responsibilities.

