



# BUILDING FOUNDATIONS FOR LUNG CANCER CARE IN RWANDA

## Addressing Critical Gaps in Diagnosis, Treatment, and Early Detection

### EXECUTIVE SUMMARY

**Lung Cancer** care in Rwanda remains at a critical stage, with limited diagnostic infrastructure, minimal pathology capacity for molecular testing, and no structured treatment pathways for advanced disease. There is no national cancer screening or awareness program specific to lung cancer, and access to imaging, biomarker testing, and targeted therapies is scarce.

Most cases are diagnosed late, and clinical care is largely palliative. Rwanda must urgently prioritize foundational lung cancer services, integrate lung cancer into its non-communicable disease (NCD) strategies, and build capacity through global partnerships, public investments, and regional cooperation.

### CURRENT SITUATION

Cancer care in Rwanda is provided through the **Rwanda Biomedical Center (RBC)** and referral institutions such as the **Rwanda Cancer Center** at Butaro Hospital. Basic oncology services exist, including chemotherapy and pathology, but **lung cancer-specific infrastructure is absent**. Radiology services are concentrated in a few urban centers, and advanced imaging (CT, PET) is extremely limited.

The **Rwanda National Strategic Plan for Cancer Control** includes cervical and breast cancer but does not yet address lung cancer. Public awareness about lung cancer symptoms, especially among non-smokers, is extremely low. As a system in the **Critical maturity tier**, Rwanda must first focus on establishing the building blocks of lung cancer care: diagnosis, workforce training, and access to essential therapies.

### INTRODUCTION

Lung cancer is a growing health concern in sub-Saharan Africa, including Rwanda, where tobacco use and air pollution are on the rise. Although national cancer registries are evolving, **Rwanda lacks reliable incidence and mortality data for lung cancer**, and there is no national strategy to address this disease.

Most patients are diagnosed based on symptoms and chest X-rays in district hospitals, with minimal access to CT scans or histopathological confirmation. Molecular testing for **EGFR, ALK, ROS1, or PD-L1** is not routinely available, and targeted therapies like **osimertinib** or **pembrolizumab** are unavailable or prohibitively expensive.

There is a strong political will in Rwanda to expand access to cancer care, but lung cancer has not yet been prioritized in national NCD programs.





# LUNG CANCER IN RWANDA

## Key Issues and Policy Recommendations

Pillar	Fact	Barrier	Policy Recommendations
Infrastructure	Some cancer services exist at Butaro and Kigali Teaching Hospital...	...but there are no dedicated lung cancer pathways or diagnostic protocols.	Develop national lung cancer care protocols and equip tertiary hospitals with basic diagnostic capacity (CT, biopsy kits).
Access to Treatment	Basic chemotherapy is available at Butaro Cancer Center...	...but targeted and immunotherapies are unavailable, and radiotherapy access is limited.	Include essential lung cancer drugs (e.g., platinum-based chemo, osimertinib) on the national essential medicines list.
Research & Innovation	Rwanda is building cancer registries with international support...	...but no data exist on lung cancer subtypes or treatment outcomes.	Incorporate lung cancer into national cancer registries and conduct baseline epidemiological surveys.
Awareness & Education	National awareness campaigns exist for cervical and breast cancer...	...but lung cancer is not included in NCD awareness materials.	Launch lung cancer education for providers and the public, with a focus on early symptoms and air pollution risks.
Survival Rates	Most lung cancer cases are diagnosed at Stage III or IV...	...and survival data is not systematically recorded.	Begin longitudinal data collection for lung cancer patients at national centers to establish survival trends.
Early Detection & Palliative Care	No screening exists, and referrals are symptom-based...	...with delayed diagnosis and inadequate palliative care coverage.	Train primary care workers to identify lung cancer warning signs and expand community-based palliative care services.
Biomarker	No routine EGFR, ALK, or PD-L1 testing is available in the public system...	...due to lack of lab capacity, reagents, and trained personnel.	Partner with regional labs or external programs to offer subsidized biomarker testing for confirmed cases.
Clinical Guidelines	Rwanda lacks national lung cancer treatment guidelines...	...leading to inconsistent and non-specialized care.	Develop simplified national clinical pathways for NSCLC and small cell lung cancer, tailored to resource constraints.
Reimbursement	Basic cancer care is subsidized through community-based health insurance...	...but advanced treatments are not covered and are unaffordable.	Establish public procurement systems for affordable generics and negotiate early access deals for lung cancer drugs.
Screening	There is no lung cancer screening program...	...and most diagnoses are late-stage.	Integrate high-risk patient screening into NCD clinics and future LDCT pilot programs.

## CONCLUSION

Rwanda stands at the **foundational stage** of lung cancer care development. With strong leadership in public health and experience scaling cancer services for other diseases, the country has a platform to build on. However, success will depend on recognizing lung cancer as a national priority, securing sustainable financing for diagnostics and drugs, and training a workforce capable of delivering modern oncology. Partnerships with international organizations and regional cancer networks will be essential to accelerate progress.



### KEY POLICY MESSAGES

- 1** Lung cancer is currently underdiagnosed and under-reported in Rwanda.
- 2** Targeted therapies and biomarker testing are unavailable or inaccessible to the public.
- 3** There is no national screening, clinical guideline, or structured referral system for lung cancer.
- 4** Early detection, diagnostics, and workforce training are the most urgent priorities.

## CALL TO ACTION

- **Add lung cancer to Rwanda's national cancer control strategy**, with goals for diagnostics, treatment, and data tracking.
- **Invest in diagnostic infrastructure**, including CT imaging, histopathology, and biopsy capabilities at referral centers.
- **Partner with regional labs** to offer affordable EGFR/ALK testing and develop long-term capacity in Rwanda.
- **Develop national clinical guidelines** for lung cancer management adapted to local resources.
- **Introduce targeted public awareness** campaigns on lung cancer symptoms and risks, aligned with tobacco and air quality policies.