

# Lung Cancer Factsheet: Insights & Key Developments

Key Insights on Lung Cancer Care  
and Infrastructure

## Core Pillars:

1. Infrastructure
2. Treatment Access, Research Funding and Awareness Campaigns
3. Survival Rates, Early Detection and Palliative Care
4. Utilization of Biomarkers
5. Clinical Guidelines
6. Reimbursement
7. Lung Cancer Screening

Lung cancer remains one of the most prevalent cancers worldwide, affecting millions of individuals each year. Despite advancements in diagnostics, treatment, and awareness, disparities in access to care, molecular testing, and specialized centers persist.

This factsheet provides a comprehensive overview of key pillars shaping lung cancer care, including specialized infrastructure, treatment accessibility, research funding, early detection, and palliative care.

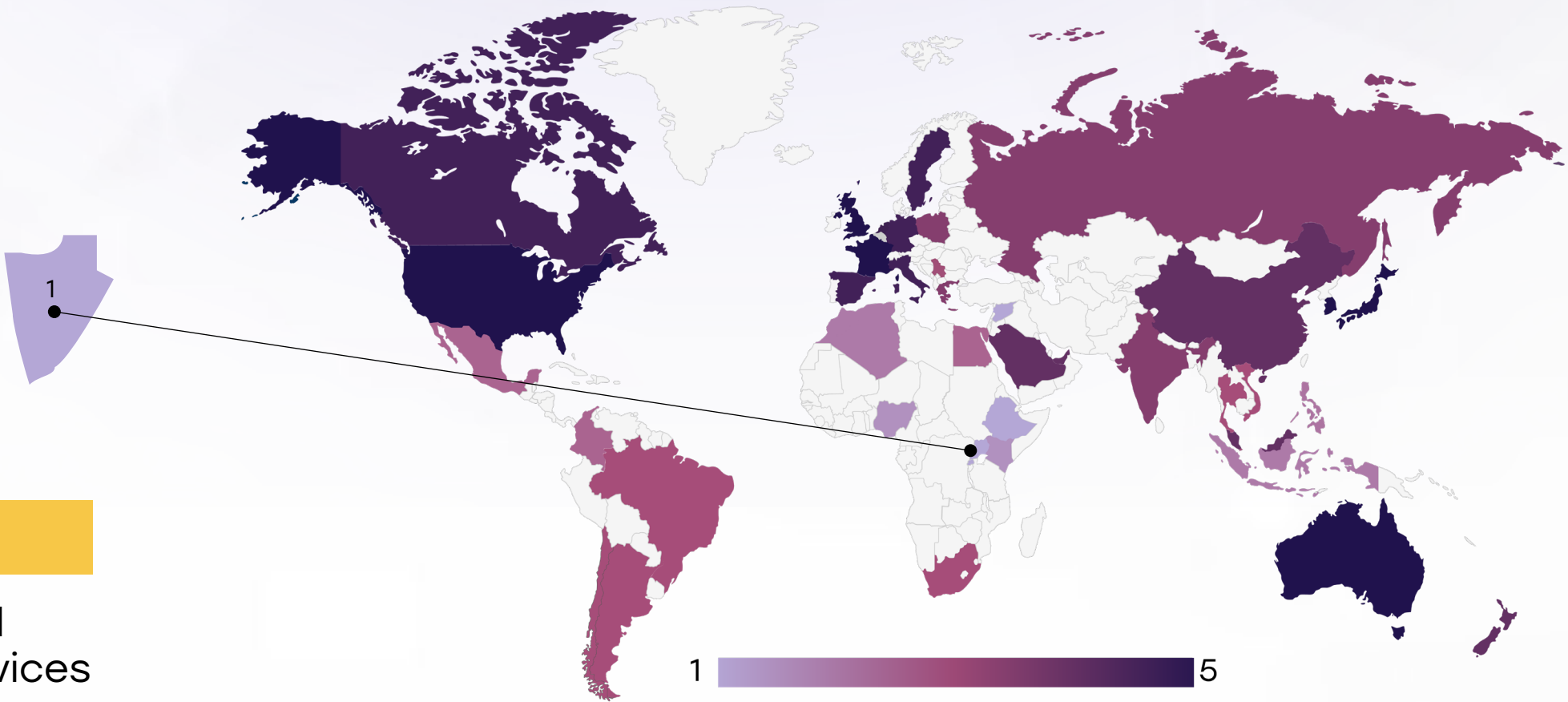
- Lung cancer incidence: Estimated ~500–700 new cases annually
- Incidence rate: ~1.2 per 100,000 (one of the lowest globally)
- Lung cancer deaths annually: Estimated ~450–600 deaths
- Gender distribution: More common in males, but increasing among females
- Most affected age group: 55 years and older
- Risk factors:
  - Tobacco use (prevalence ~10% in adults, higher in men)
  - Indoor air pollution (biomass fuel exposure)
- Stage at diagnosis: Majority present at late stage (Stage III/IV) due to poor awareness and limited screening
- 5-year survival rate: Very low; estimated below 10%
- Diagnostic infrastructure: Limited access to imaging (CT, PET scans) and pathology



# Uganda



## Infrastructure



### Strengths

- Uganda has centralized cancer care infrastructure through the **Uganda Cancer Institute (UCI)** in Kampala, which offers chemotherapy, pathology, and limited radiotherapy.

### Weakness

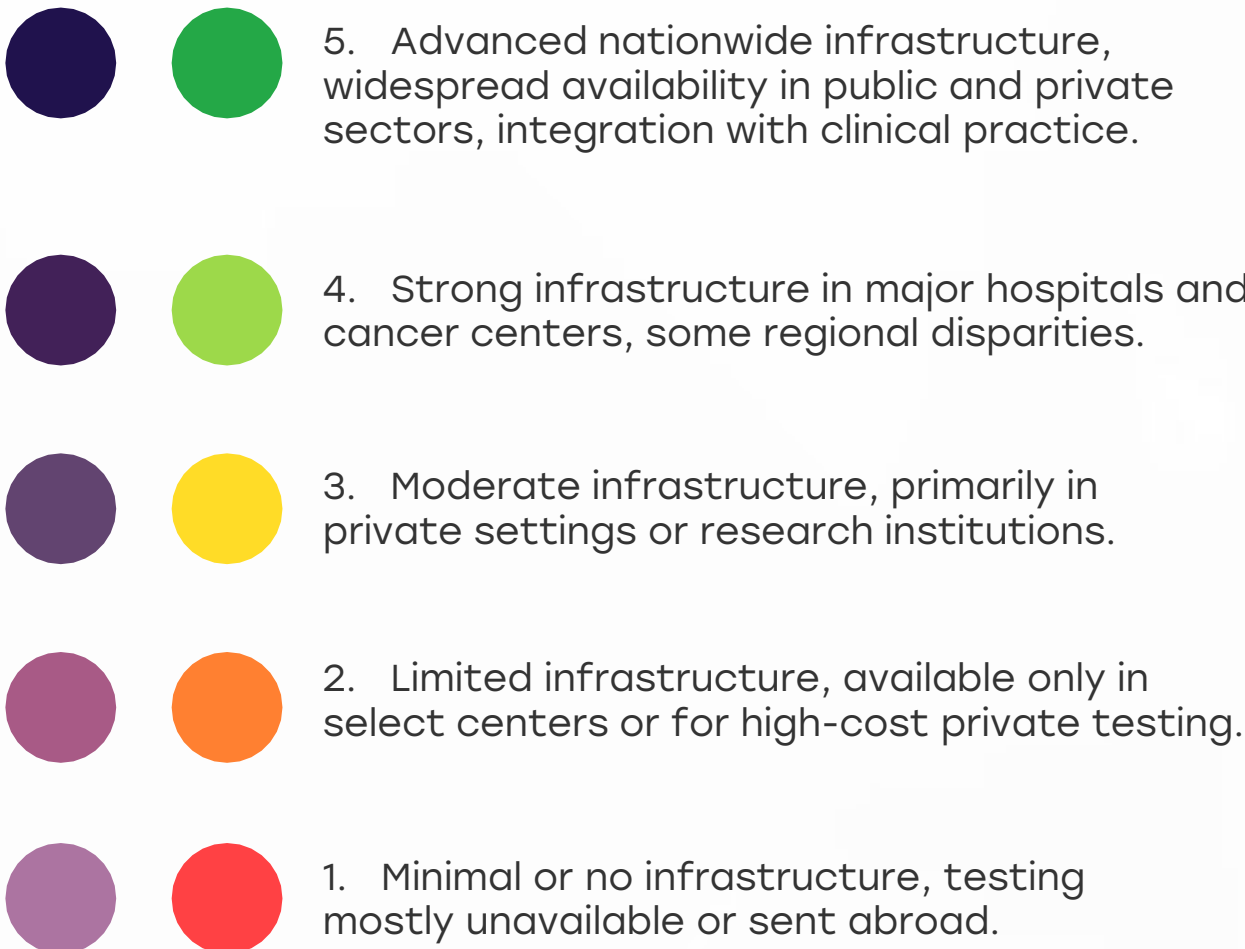
- Diagnostic and treatment services are highly centralized—**over 90% of advanced diagnostics** (CT, pathology, biopsy) are only available in Kampala.

### Opportunity

- Expansion of **regional cancer centers** in Gulu and Mbarara under Uganda's National Cancer Control Plan can reduce geographic barriers.

### Threats

- Chronic underinvestment, equipment shortages, and inconsistent power supply limit service reliability in public facilities.

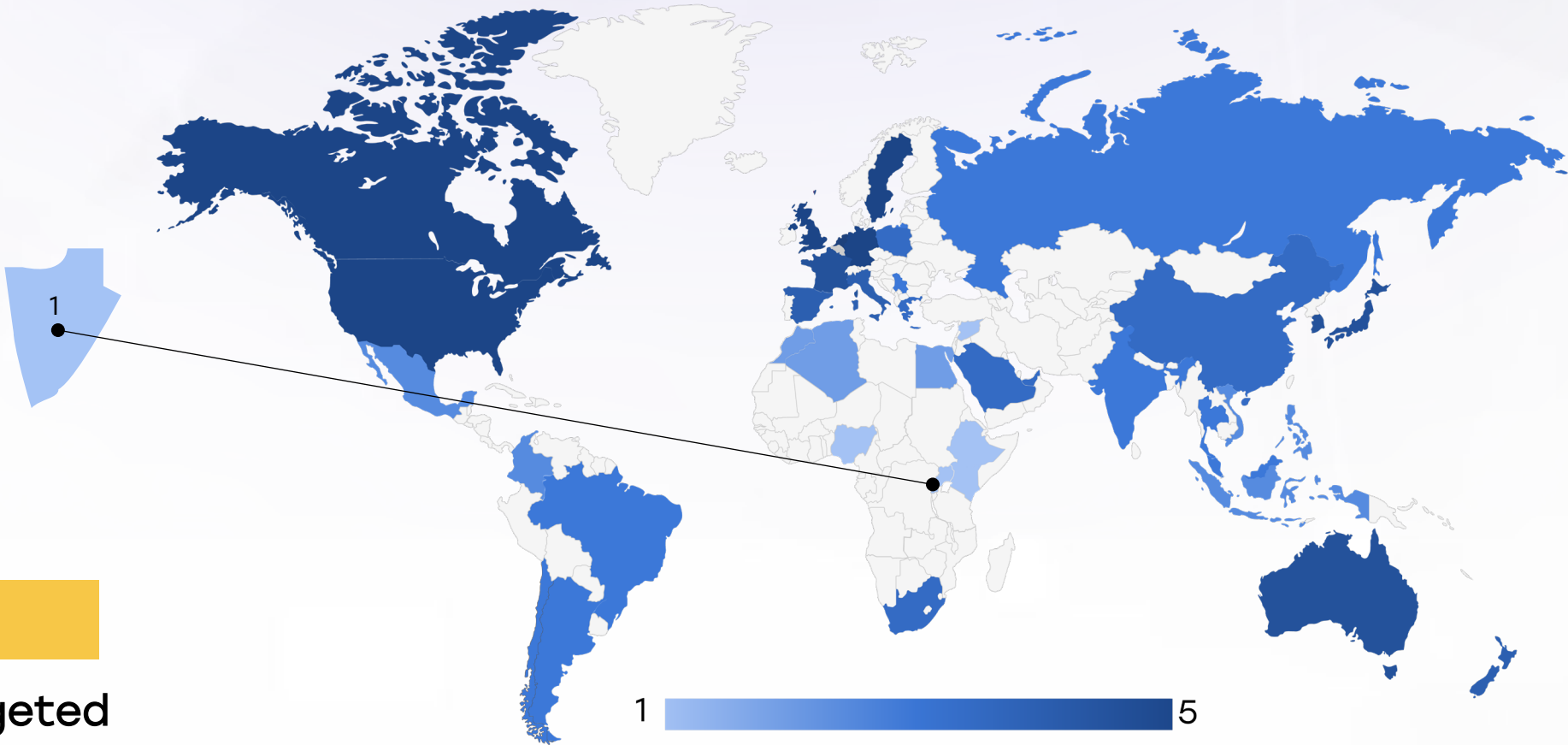


Country	Specialized Centers	Genetic & Molecular Testing Infrastructure
South Africa		
Kenya		
Nigeria		
Egypt		
Morocco		
Algeria		
Ethiopia		
India		
Japan		
South Korea		
China		
Thailand		
Singapore		
United Kingdom		
Germany		
France		
Netherlands		
Sweden		
Italy		
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Vietnam		
Philippines		
Russia		
Malaysia		

# Uganda



## Treatment Access, Research Funding and Awareness Campaigns



### Strengths

- The public system offers **free chemotherapy** and basic diagnostic services at UCI; Uganda is participating in multicenter cancer trials via collaborations with NIH, Fred Hutch, and MSKCC.

### Weakness

- Access to **targeted therapies and radiotherapy** is extremely limited; no in-country access to immunotherapy or advanced molecular agents for lung cancer.

### Opportunity

- Increased global partnerships and donor support (e.g., BIO Ventures for Global Health) can help expand treatment and trial access.

### Threats

- Lung cancer remains under-prioritized in cancer awareness campaigns, which mostly focus on breast, cervical, and childhood cancers.



5. Strong healthcare infrastructure with comprehensive treatment access, high research funding, and nationwide awareness campaigns. Patients have access to advanced therapies, clinical trials, and widespread early detection programs.



4. Well-developed system with good treatment availability, strong research funding, and effective but regionally focused awareness campaigns. Some disparities may exist in rural areas or between public and private sectors.



3. Moderate development, with specialized treatments available in major hospitals, research funding concentrated on specific cancers, and occasional but limited awareness efforts. Healthcare access may be restricted by cost or geography.



2. Limited system where cancer treatment is available only in select urban centers, research funding is minimal or sporadic, and awareness campaigns are rare or underfunded. Patients often face long wait times or financial barriers.



1. Poor infrastructure with severe barriers to treatment, little to no research funding, and lack of structured awareness campaigns. Cancer care is largely inaccessible, with many patients relying on out-of-pocket expenses or external aid.

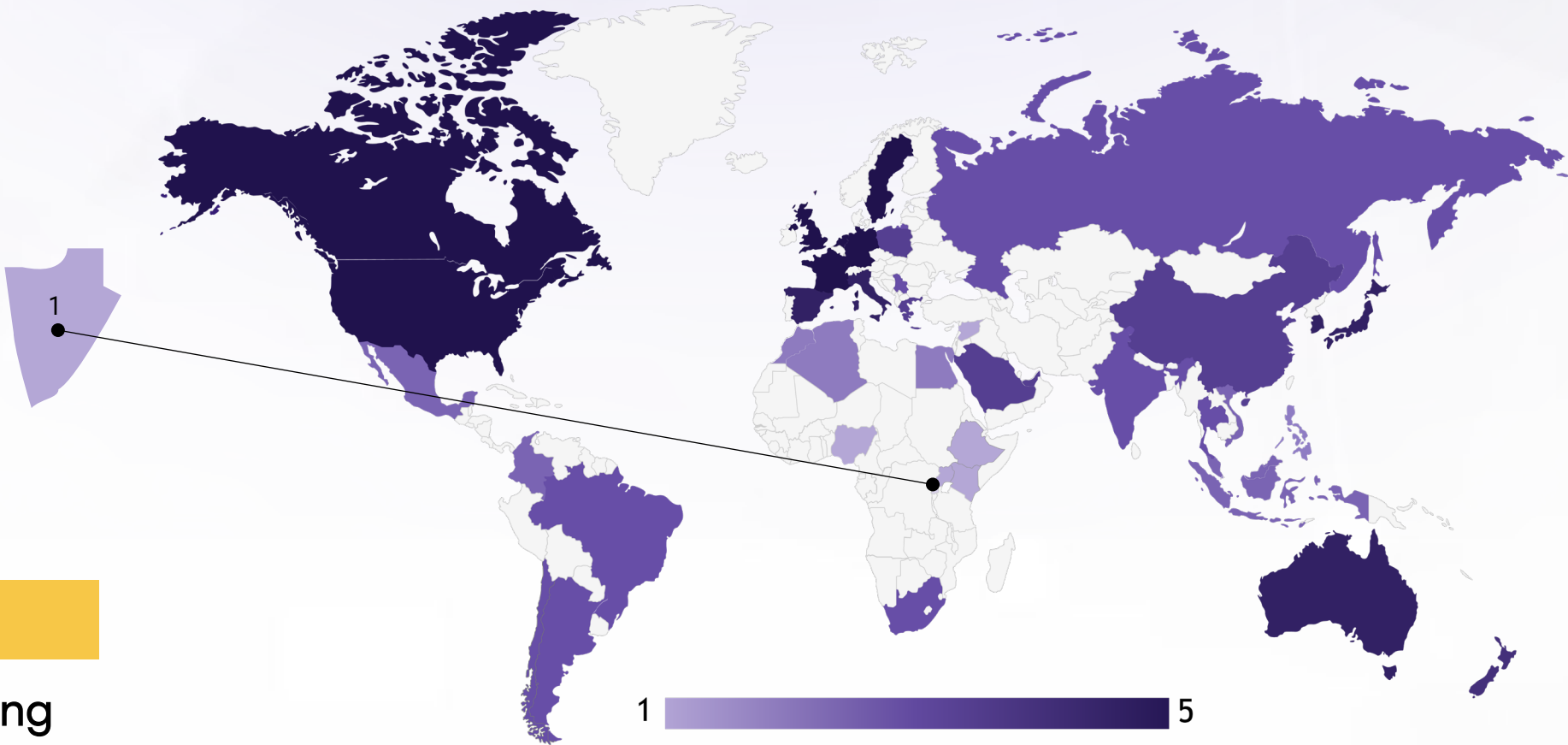
Country	Treatment Access	Research Funding	Awareness Campaigns
South Africa			
Kenya			
Nigeria			
Egypt			
Morocco			
Algeria			
Ethiopia			
India			
Japan			
South Korea			
China			
Thailand			
Singapore			
United Kingdom			
Germany			
France			
Netherlands			
Sweden			
Italy			
Spain			
Poland			
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Argentina			
Chile			
Colombia			
United States			
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New Zealand			
Greece			
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Saudi Arabia			
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Syria			
Indonesia			
Vietnam			
Philippines			
Russia			
Malaysia			



# Uganda



## Survival Rates, Early Detection and Palliative Care



### Strengths

- Palliative care is integrated into primary health services, and Uganda was the first African country to produce oral morphine locally, improving symptom control.

### Weakness

- Over 80% of lung cancer patients are diagnosed at late stages (III or IV), leading to poor outcomes. Five-year survival is estimated at <10%.

### Opportunity

- Strengthening symptom-based referral algorithms at the community level could support earlier case detection.

### Threats

- Misdiagnosis with tuberculosis (which shares similar symptoms) contributes to delayed lung cancer identification.



5. High survival rates, strong early detection programs, and well-established palliative care services. Patients have access to timely diagnosis, advanced treatments, and comprehensive end-of-life care.
4. Good survival rates, effective early detection efforts, and accessible but regionally limited palliative care. Some disparities may exist in rural areas or for specific cancer types.
3. Moderate survival rates, early detection available but not widespread, and palliative care services mainly in urban centers. Some patients experience delays in diagnosis or limited end-of-life care.
2. Low survival rates, early detection efforts are inconsistent or underfunded, and palliative care is minimal or only available in select hospitals. Cancer patients face significant access barriers.
1. Very low survival rates, poor early detection infrastructure, and almost no palliative care services. Many patients are diagnosed late and lack proper support for pain management and end-of-life care.

Country	Survival Rates	Early Detection	Palliative Care
South Africa	<div></div>	<div></div>	<div></div>
Kenya	<div></div>	<div></div>	<div></div>
Nigeria	<div></div>	<div></div>	<div></div>
Egypt	<div></div>	<div></div>	<div></div>
Morocco	<div></div>	<div></div>	<div></div>
Algeria	<div></div>	<div></div>	<div></div>
Ethiopia	<div></div>	<div></div>	<div></div>
India	<div></div>	<div></div>	<div></div>
Japan	<div></div>	<div></div>	<div></div>
South Korea	<div></div>	<div></div>	<div></div>
China	<div></div>	<div></div>	<div></div>
Thailand	<div></div>	<div></div>	<div></div>
Singapore	<div></div>	<div></div>	<div></div>
United Kingdom	<div></div>	<div></div>	<div></div>
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France	<div></div>	<div></div>	<div></div>
Netherlands	<div></div>	<div></div>	<div></div>
Sweden	<div></div>	<div></div>	<div></div>
Italy	<div></div>	<div></div>	<div></div>
Spain	<div></div>	<div></div>	<div></div>
Poland	<div></div>	<div></div>	<div></div>
Mexico	<div></div>	<div></div>	<div></div>
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Argentina	<div></div>	<div></div>	<div></div>
Chile	<div></div>	<div></div>	<div></div>
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United States	<div></div>	<div></div>	<div></div>
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Australia	<div></div>	<div></div>	<div></div>
New Zealand	<div></div>	<div></div>	<div></div>
Greece	<div></div>	<div></div>	<div></div>
Rwanda	<div></div>	<div></div>	<div></div>
Uganda	<div></div>	<div></div>	<div></div>
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Syria	<div></div>	<div></div>	<div></div>
Indonesia	<div></div>	<div></div>	<div></div>
Vietnam	<div></div>	<div></div>	<div></div>
Philippines	<div></div>	<div></div>	<div></div>
Russia	<div></div>	<div></div>	<div></div>
Malaysia	<div></div>	<div></div>	<div></div>

# Uganda



## Utilization of Biomarkers

### Strengths

- UCI and Makerere University offer **basic histopathology** and immunohistochemistry (IHC) services.

### Weakness

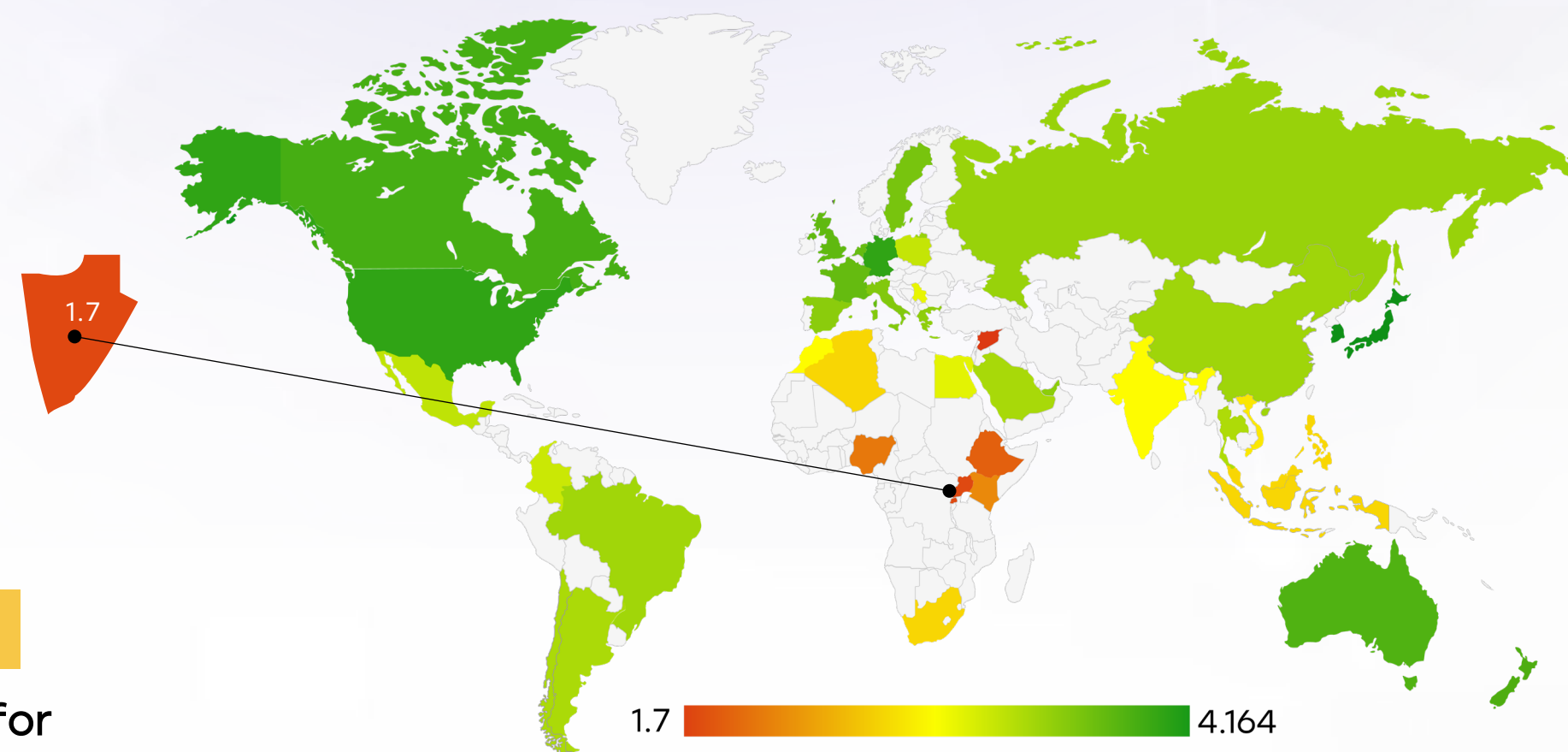
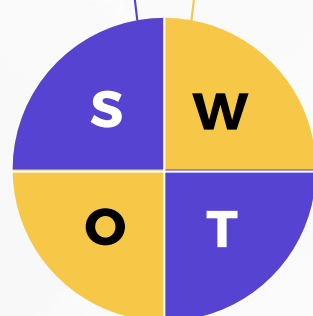
- Molecular testing for EGFR, ALK, PD-L1, or NGS panels is not available in-country—samples must be sent abroad (e.g., South Africa or India).

### Opportunity

- Regional laboratory collaborations (e.g., East African Oncology Network) could help Uganda establish biomarker testing capacity.

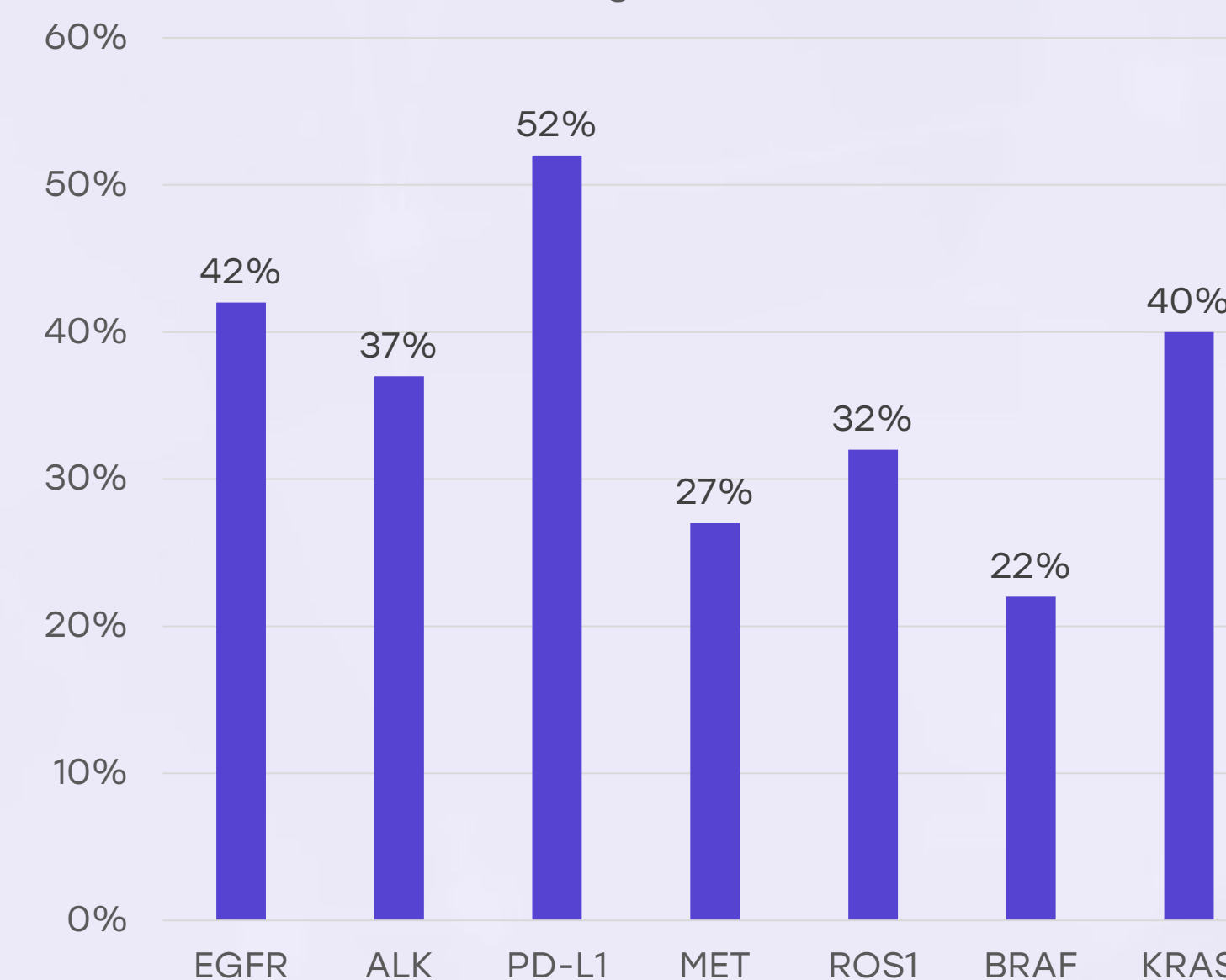
### Threats

- Cost and logistical delays mean biomarker-guided treatment is inaccessible to most patients, even in the capital.



1. Biomarker testing is rarely performed, often due to lack of infrastructure, awareness, or financial barriers. Patients typically do not receive targeted therapies based on biomarker status.
2. Biomarker testing is available but underutilized, with significant barriers such as high costs, lack of awareness, or limited infrastructure. Many patients may not receive recommended biomarker assessments.
3. Moderate utilization, often restricted to major hospitals or private healthcare settings. Some patients may not receive biomarker testing due to cost or limited availability in public healthcare systems.
4. Biomarker testing is commonly used, but access may be limited in certain regions or patient groups. Some disparities exist in coverage or affordability, but it is still a crucial part of cancer diagnostics.
5. Biomarker testing is widely available and routinely performed as part of standard clinical practice. Strong integration into treatment decisions, with national coverage and reimbursement ensuring accessibility.

Uganda





# Uganda



## Clinical Guidelines

### Strengths

- Uganda’s National Cancer Control Plan (NCCP 2020–2025) includes lung cancer in its strategic priorities.

### Weakness

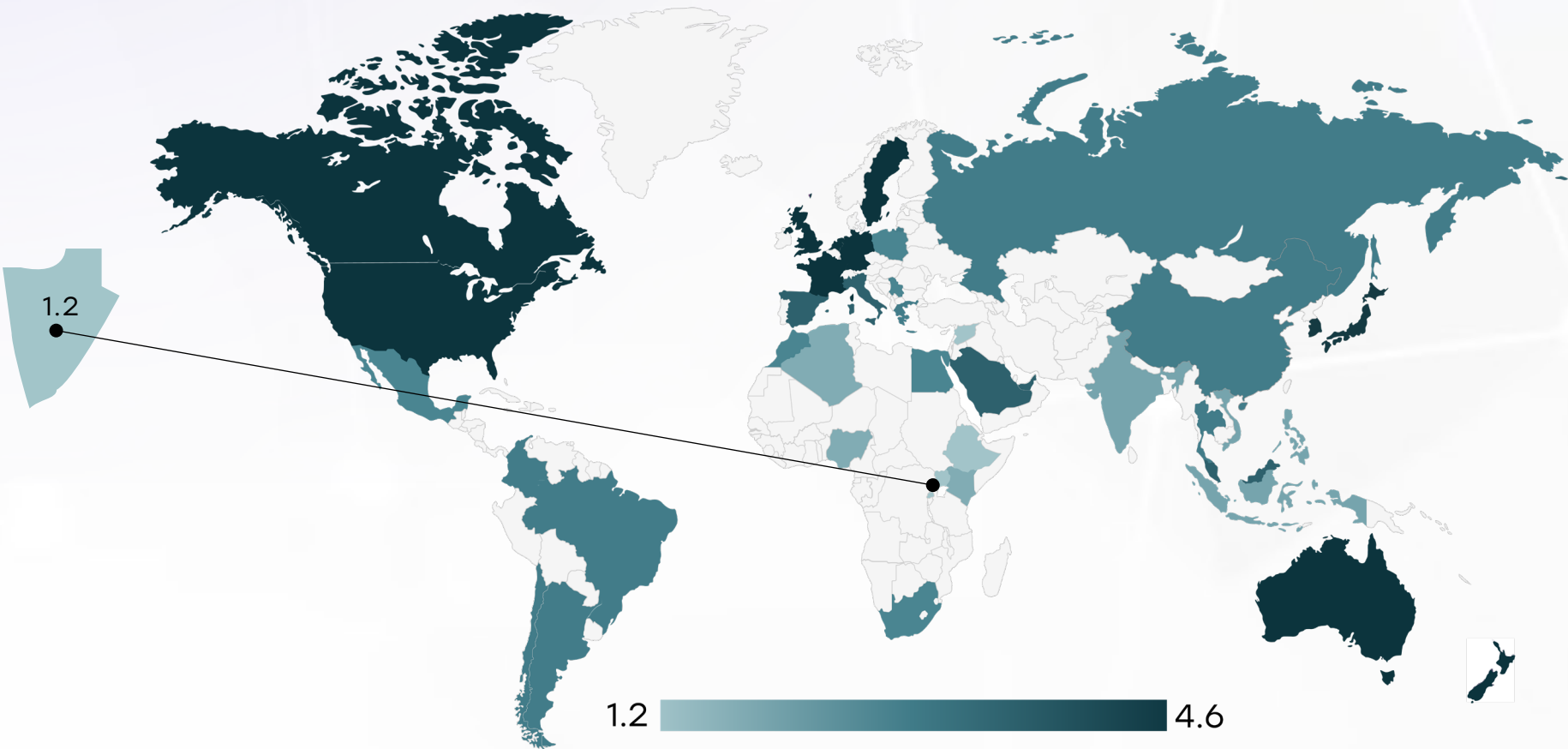
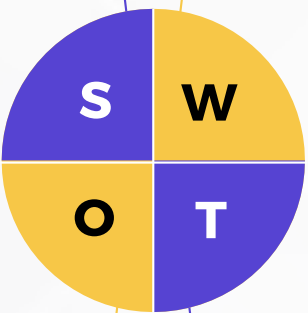
- There are no national lung cancer-specific clinical guidelines yet; treatment pathways are often determined case-by-case, based on physician experience and availability.

### Opportunity

- Development of **resource-stratified** guidelines tailored to Uganda’s context (via ASCO, NCCN Frameworks) could standardize care.

### Threats

- Inadequate training in oncology among general practitioners and low awareness of updated protocols limits effective implementation.



	Very High	High	Medium	Low	Very Low
Clinical Guideline Implementation	✗	✗	✗	○	✗
Feasibility of Integration	✗	✗	✗	✗	○
Adoption of International Guidelines	✗	✗	✗	✗	○
Engagement with Updates	✗	✗	✗	✗	○
ESMO Guidelines Implementation	✗	✗	✗	✗	○

# Uganda



## Reimbursement



### Strengths

- Cancer care at UCI is free of charge for all patients under the public system, including chemotherapy and basic diagnostics.

### Weakness

- Public funding does not cover advanced diagnostics, targeted therapy, or imaging outside of UCI—patients must pay out-of-pocket or forgo treatment.

### Opportunity

- Integration of cancer into Uganda’s **National Health Insurance Scheme (NHIS)** (in development) could widen reimbursement access.

### Threats

- Delays in NHIS rollout and fiscal limitations threaten sustainable financing for equitable cancer care.



A structured reimbursement system exists, ensuring biomarker testing is covered through national healthcare systems, insurance, or public-private partnerships. Patients face no direct financial burden.



A reimbursement framework is in place, but patients may still have out-of-pocket expenses such as co-pays, limited coverage, or financial caps on testing.



No formal reimbursement system exists, meaning patients must fully cover the cost of biomarker testing out-of-pocket.

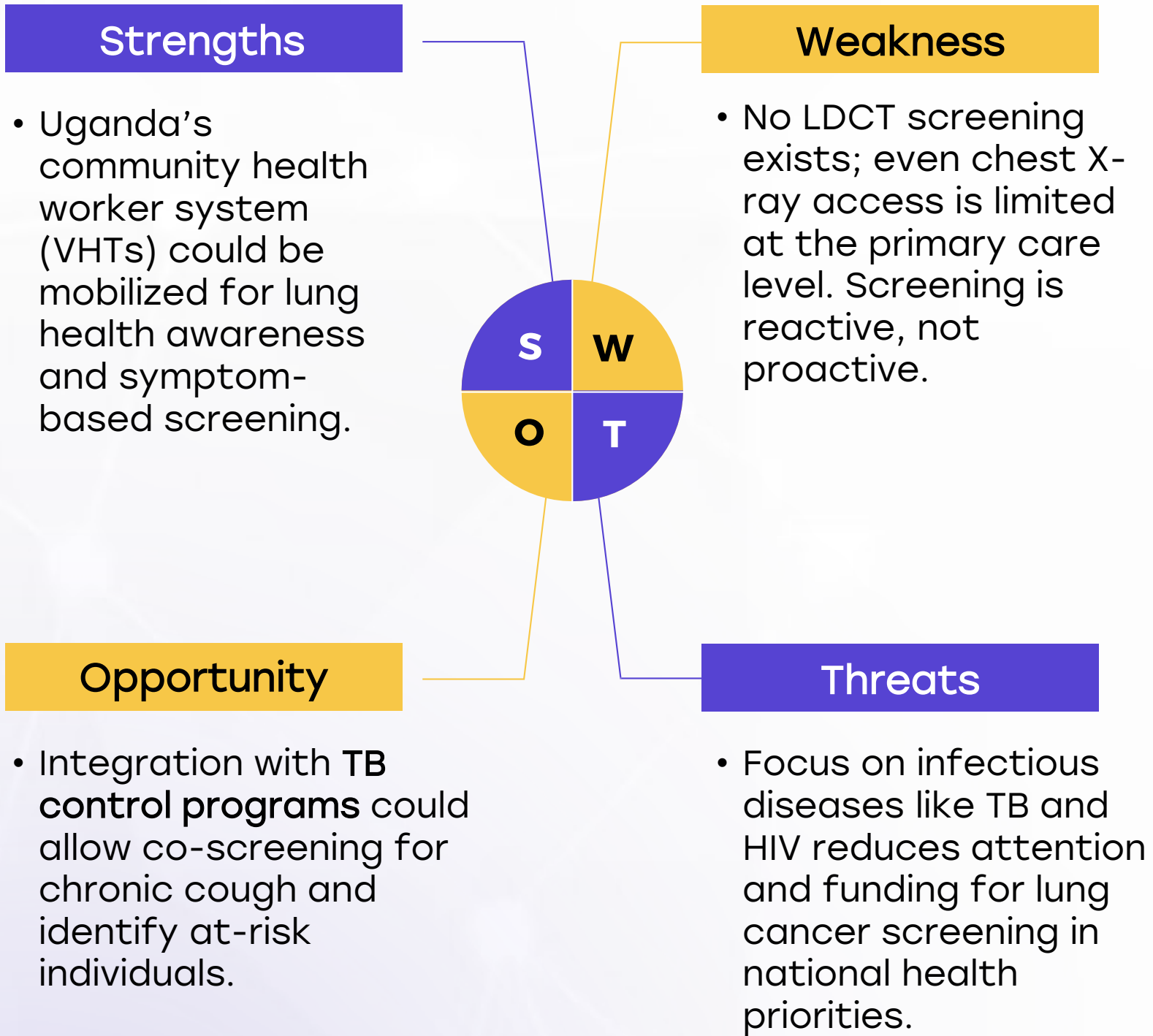
Country	Reimbursement Framework	No-cost Access
United States		
United Kingdom		
Canada		
Australia		
Germany		
France		
Netherlands		
Sweden		
Italy		
Spain		
Poland		
Japan		
South Korea		
China		
India		
Singapore		
Thailand		
South Africa		
Kenya		
Nigeria		
Egypt		
Morocco		
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Indonesia		
Vietnam		
Philippines		
Russia		
Malaysia		



# Uganda



## Lung Cancer Screening



Country	Lung Cancer Screening
United States	Annual LDCT (50-80 years, high-risk smokers)
United Kingdom	LDCT for high-risk individuals (55-74 years)
Canada	LDCT for high-risk individuals (55-74 years)
Australia	No national program, high-risk groups advised LDCT
Germany	No national program, under evaluation
France	No national LDCT screening
Netherlands	Participating in European screening studies
Sweden	No national LDCT screening
Italy	Regional pilot LDCT screening
Spain	No national LDCT program
Poland	No national program
Japan	No national LDCT program
South Korea	LDCT for high-risk individuals (50-74 years)
China	No national LDCT program
India	No national LDCT program
Singapore	No national LDCT program
Saudi Arabia	No national LDCT program; some hospital-based opportunistic screening
UAE	No national LDCT program; early-stage pilot studies ongoing in select hospitals
Syria	No national LDCT program; screening not prioritized due to conflict
Malaysia	No program; high-risk CT pilots

Country	Lung Cancer Screening
Thailand	No national LDCT program
South Africa	No national LDCT program
Kenya	No national LDCT program
Nigeria	No national LDCT program
Egypt	No national LDCT program
Morocco	No national LDCT program
Algeria	No national LDCT program
Ethiopia	No national LDCT program
Mexico	No national LDCT program
Brazil	No national LDCT program
Argentina	No national LDCT program
Chile	No national LDCT program
Colombia	No national LDCT program
Zealand	No national LDCT program
Greece	No national LDCT program
Rwanda	No national LDCT program
Uganda	No national LDCT program
Serbia	No national LDCT program
Indonesia	No national LDCT program; opportunistic screening in private sector
Vietnam	No national LDCT program; early pilot screening studies in Hanoi and Ho Chi Minh
Philippines	No national LDCT program; feasibility and awareness programs under discussion
Russia	No formal national LDCT program; regional pilot screening programs in large cities