Nigeria 🇳🇬

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: ~3,000–4,000 new cases annually
- Lung cancer deaths: ~3,000 deaths per year
- Incidence rate: ~2.7 per 100,000 population
- 5-year survival rate: Estimated to be below 10%
- Commonly diagnosed at advanced stages (Stage III or IV)
- Average age at diagnosis: ~60 years
- Male-to-female ratio: ~2:1
- Most common histological type: Adenocarcinoma
- High proportion of non-smokers affected, especially women

International Cancer Patient Coalition

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Infrastructure
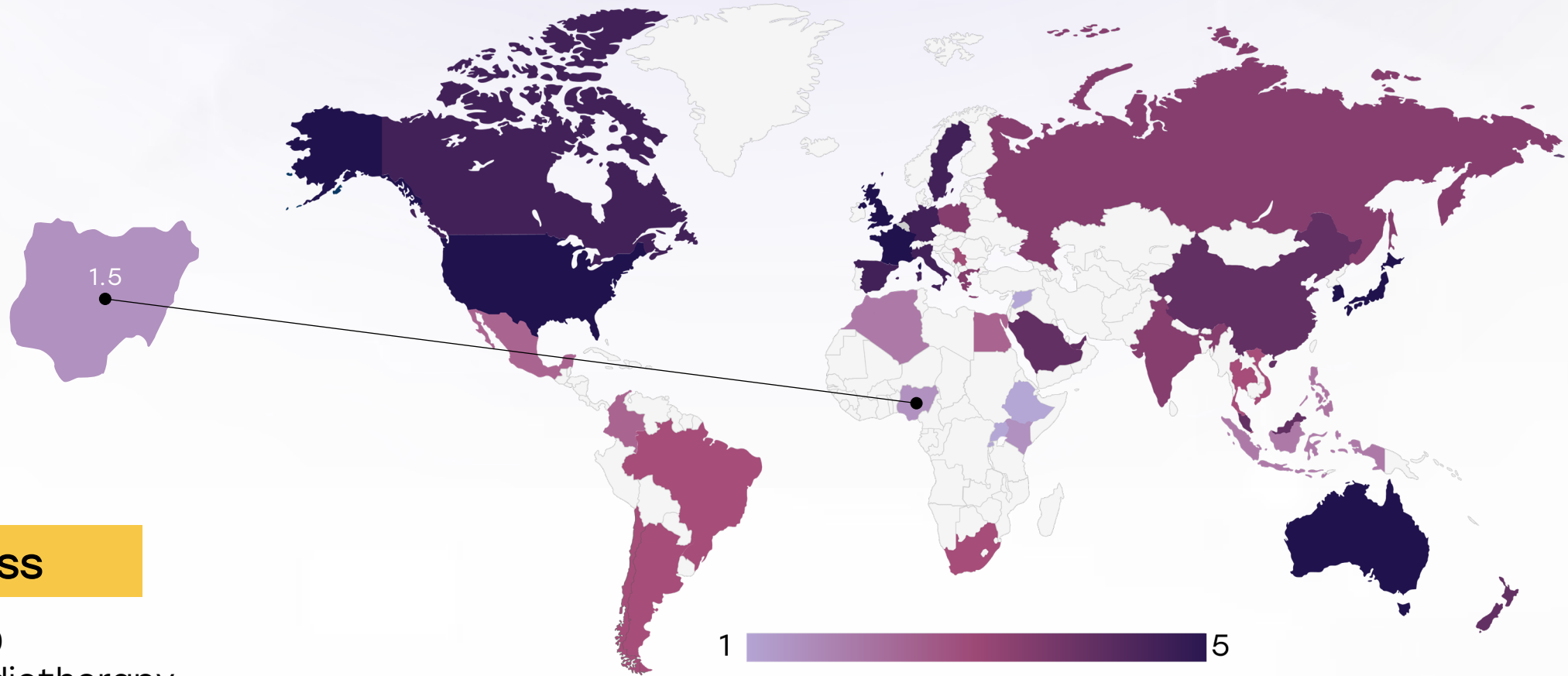
Strengths

- National Cancer Control Plan (2018–2022) identified tertiary institutions such as University College Hospital (Ibadan) and Lagos University Teaching Hospital as referral cancer centers.

- Ongoing partnerships with NGOs (e.g., Clinton Health Access Initiative) to improve radiotherapy access and diagnostic imaging.
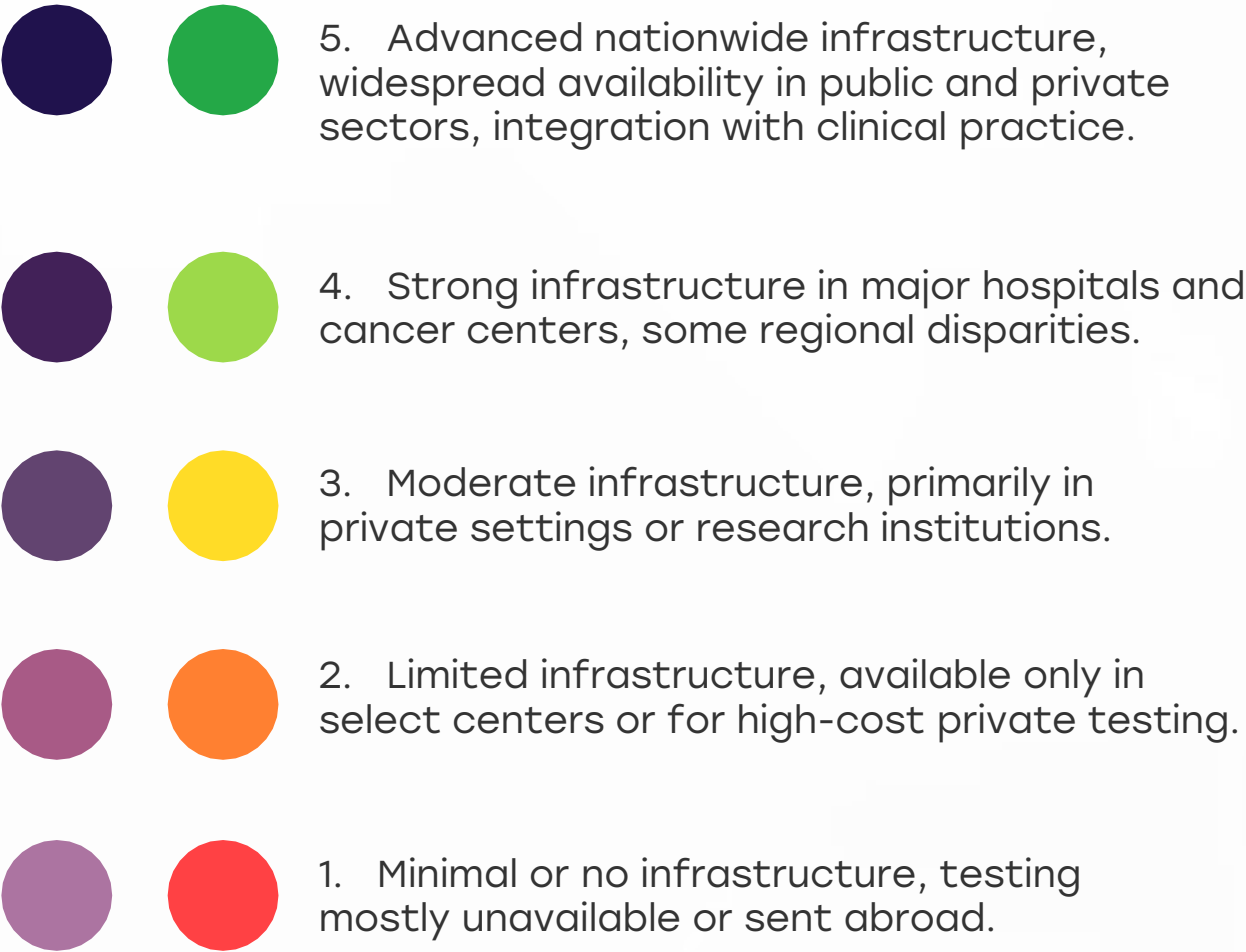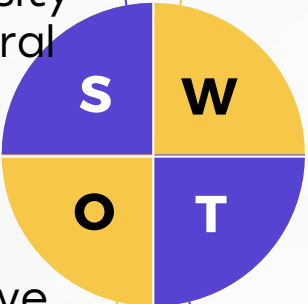
Weakness

- Fewer than 10 functional radiotherapy machines across the country; many diagnostic tools such as CT scanners are outdated or centralized in major cities.

Opportunity

- Federal investment in six regional cancer centers could strengthen diagnostic and treatment access.

Threats

- Chronic underfunding, outdated infrastructure, and poor maintenance of equipment, particularly in northern and rural zones.

1.5 (Nigeria map marker)

Map scale: 1 — 5

5. Advanced nationwide infrastructure, widespread availability in public and private sectors, integration with clinical practice.

4. Strong infrastructure in major hospitals and cancer centers, some regional disparities.

3. Moderate infrastructure, primarily in private settings or research institutions.

2. Limited infrastructure, available only in select centers or for high-cost private testing.

1. Minimal or no infrastructure, testing mostly unavailable or sent abroad.

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	🟢	🟢
Spain	🟢	🟢
Poland	🟢	🟡
Mexico	🟠	🟡
Brazil	🟡	🟡
Argentina	🟡	🟡
Chile	🟡	🟡
Colombia	🟠	🟡
United States	🟢	🟢
Canada	🟢	🟢
Australia	🟢	🟢
New Zealand	🟢	🟢
Greece	🟢	🟡
Rwanda	🔴	🔴
Uganda	🔴	🔴
Serbia	🟡	🟡
Saudi Arabia	🟢	🟢
UAE	🟢	🟢
Syria	🔴	🔴
Indonesia	🟠	🟠
Vietnam	🟡	🟡
Philippines	🟠	🟠
Russia	🟢	🟡
Malaysia	🟢	🟢

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Treatment Access, Research Funding and Awareness Campaigns

SWOT
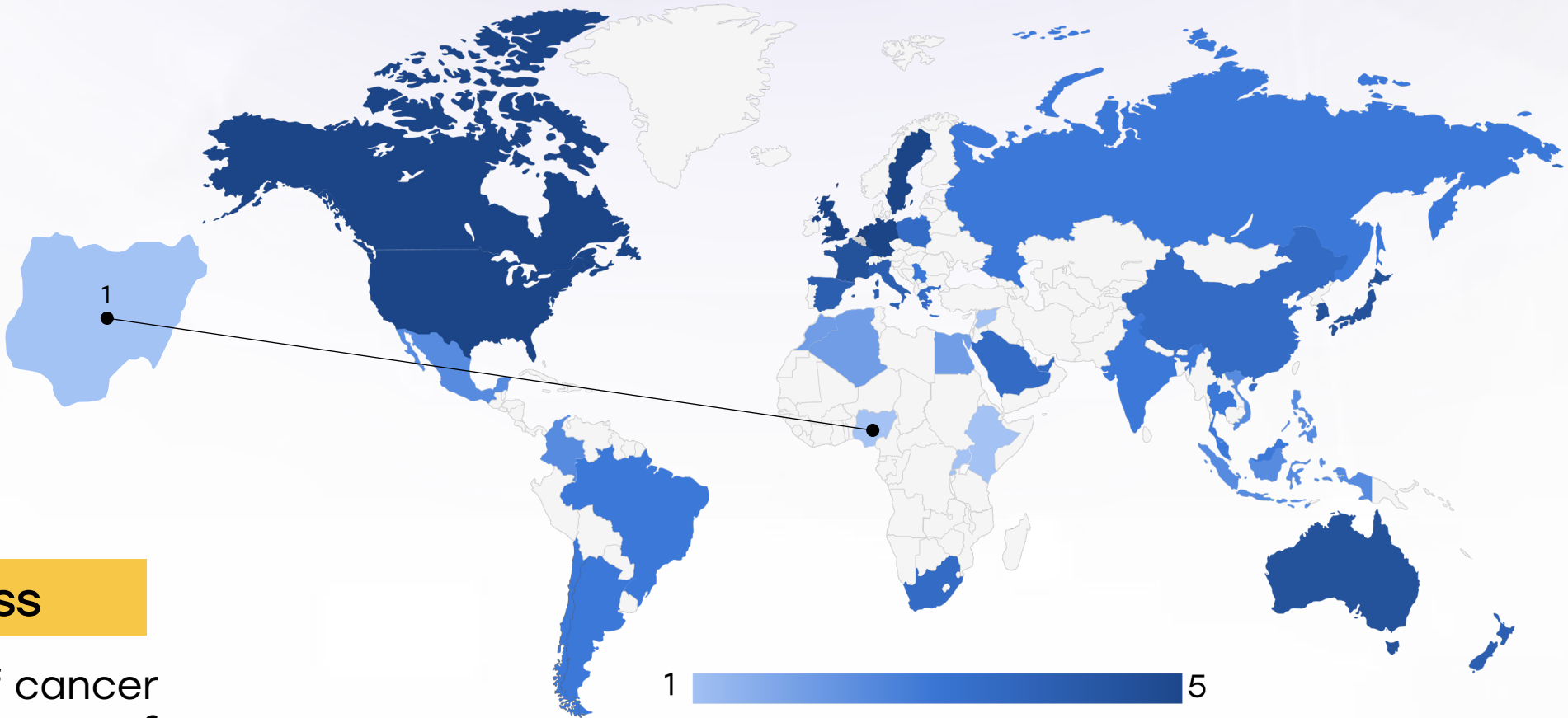
Strengths
- Availability of chemotherapy and some immunotherapies (e.g., pembrolizumab) in private sector or through personal importation.
- National Oncology Research Institute supports data collection and limited research grants.

Weakness
- Over 70% of cancer patients pay out-of-pocket, and many treatments are unaffordable in public hospitals.
- Research output in lung cancer remains very low due to lack of infrastructure and funding.

Opportunity
- Global partnerships (e.g., IARC, IAEA) can help fund trials, registries, and cancer awareness in high-risk populations.

Threats
- Low public awareness about lung cancer symptoms; stigma and misinformation are common.

Legend

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	yellow	yellow	green
Kenya	red	red	red
Nigeria	red	red	red
Egypt	orange	orange	orange
Morocco	orange	orange	orange
Algeria	orange	orange	orange
Ethiopia	red	red	orange
India	yellow	yellow	yellow
Japan	green	light green	green
South Korea	green	light green	green
China	light green	yellow	light green
Thailand	yellow	yellow	yellow
Singapore	green	green	green
United Kingdom	green	green	green
Germany	green	green	green
France	green	green	green
Netherlands	green	green	green
Sweden	green	green	green
Italy	green	light green	light green
Spain	green	light green	light green
Poland	light green	yellow	light green
Mexico	orange	orange	yellow
Brazil	yellow	yellow	yellow
Argentina	yellow	yellow	yellow
Chile	yellow	yellow	yellow
Colombia	orange	orange	yellow
United States	green	green	green
Canada	green	green	green
Australia	green	light green	green
Zealand	light green	light green	light green
Greece	light green	yellow	light green
Rwanda	red	red	red
Uganda	red	red	red
Serbia	yellow	yellow	yellow
Saudi Arabia	light green	yellow	light green
UAE	light green	yellow	light green
Syria	red	red	red
Indonesia	yellow	orange	yellow
Vietnam	yellow	orange	yellow
Philippines	orange	orange	yellow
Russia	light green	yellow	yellow
Malaysia	light green	yellow	yellow

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Survival Rates, Early Detection and Palliative Care

Strengths
- Palliative care included in the National Cancer Control Plan, with services present in major teaching hospitals.

Weakness
- The 5-year survival rate for lung cancer is estimated to be less than 10%, with most diagnoses occurring at late stages (Stage III or IV).
- Lack of national cancer registry limits survival tracking.

Opportunity
- Integration of palliative care into primary health care and community clinics through task-shifting could expand access.

Threats
- Shortage of trained palliative care specialists and opioids for pain management; many patients rely on traditional medicine.

S W O T

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.

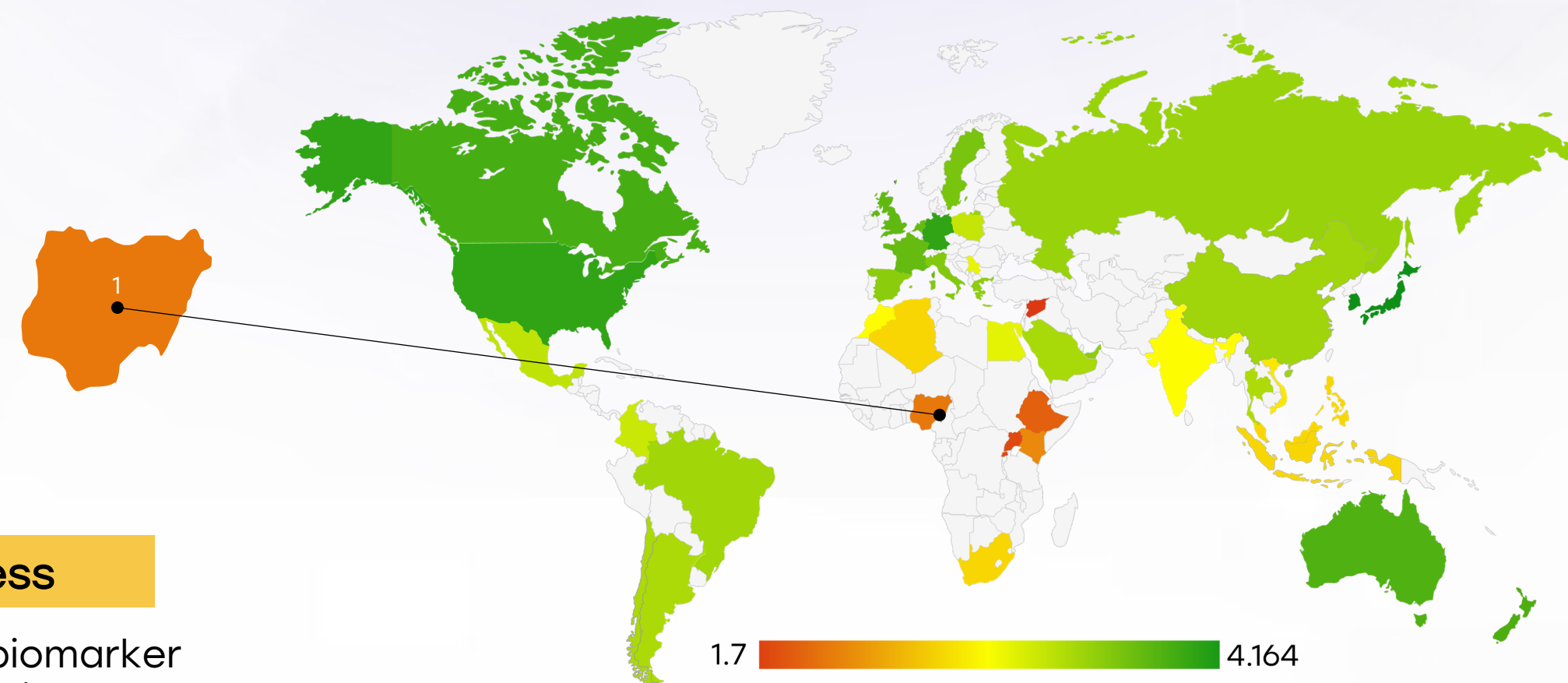| Country	Survival Rates	Early Detection	Palliative Care
South Africa	yellow	yellow	yellow
Kenya	red	red	red
Nigeria	red	red	red
Egypt	orange	orange	orange
Morocco	orange	orange	orange
Algeria	orange	orange	orange
Ethiopia	red	red	orange
India	yellow	yellow	yellow
Japan	green	light green	green
South Korea	green	light green	green
China	yellow	yellow	light green
Thailand	yellow	yellow	yellow
Singapore	green	green	green
United Kingdom	green	green	green
Germany	green	green	green
France	green	green	green
Netherlands	green	green	green
Sweden	green	green	green
Italy	green	light green	green
Spain	green	light green	green
Poland	yellow	yellow	light green
Mexico	orange	yellow	orange
Brazil	yellow	yellow	yellow
Argentina	yellow	yellow	yellow
Chile	yellow	yellow	yellow
Colombia	orange	yellow	orange
United States	green	green	green
Canada	green	green	green
Australia	green	light green	green
New Zealand	light green	light green	light green
Greece	yellow	yellow	light green
Rwanda	red	red	red
Uganda	red	red	red
Serbia	yellow	yellow	yellow
Saudi Arabia	light green	yellow	light green
UAE	light green	yellow	light green
Syria	red	red	red
Indonesia	yellow	orange	yellow
Vietnam	yellow	orange	yellow
Philippines	orange	orange	yellow
Russia	light green	yellow	yellow
Malaysia	yellow	orange	yellow

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Utilization of Biomarkers

Strengths
- Some teaching hospitals (e.g., LUTH, UCH) offer basic **EGFR mutation testing** in collaboration with international labs.

Weakness
- Access to biomarker testing is limited; **ALK, PD-L1, ROS1, or BRAF** are rarely tested due to lack of infrastructure and cost.
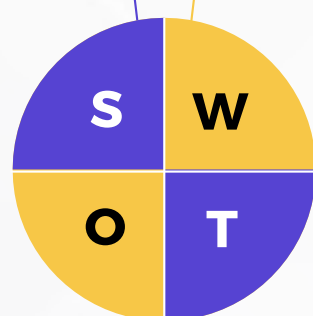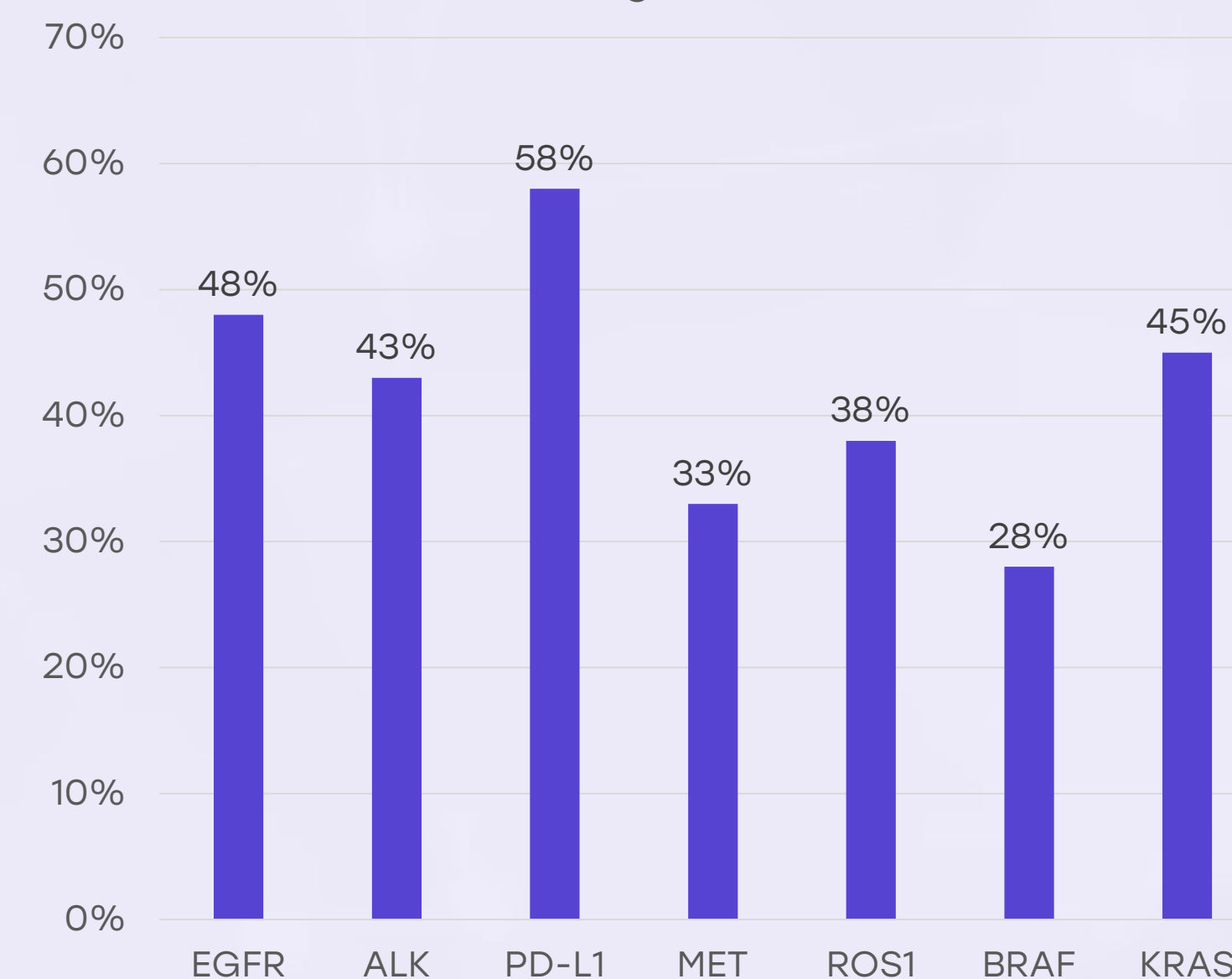
Opportunity
- Establishing **centralized molecular labs** in each geopolitical zone could expand access affordably.

Threats
- No national strategy or reimbursement policy for biomarker testing; patients must pay high out-of-pocket fees.

S W
O T

1.7   4.164

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.

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

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.

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.

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.
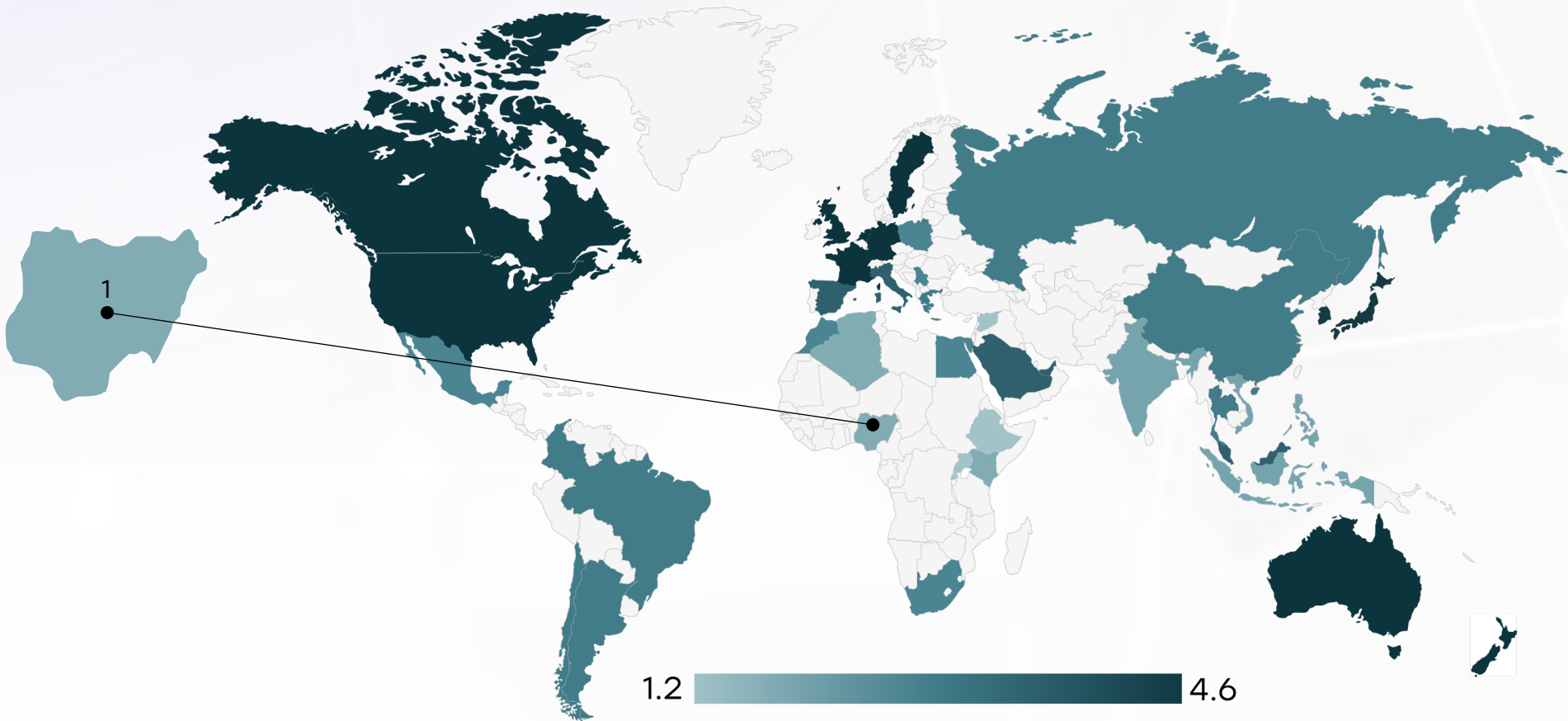
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Biomarker	Percentage
EGFR	48%
ALK	43%
PD-L1	58%
MET	33%
ROS1	38%
BRAF	28%
KRAS	45%

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Clinical Guidelines

![Nigeria flag]

Strengths

- Nigeria has endorsed the **National Cancer Treatment Guidelines**, adapted from NCCN and ESMO recommendations.

Weakness

- **Limited enforcement or routine implementation,** especially in non-tertiary hospitals.

Opportunity

- Online training and mentoring through regional cancer centers can improve adherence to protocols.

Threats

- Inconsistent training and continuing education contribute to wide variation in care standards.

1.2 — 4.6

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

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Reimbursement

SWOT Analysis

Strengths
- Nigeria's **National Health Insurance Authority (NHIA)** is expanding to cover some basic cancer services.

Weakness
- NHIA covers **less than 10% of the population**; most cancer services remain uncovered or inadequately reimbursed.

Opportunity
- Proposed **Cancer Health Fund** could subsidize essential treatments for low-income patients if effectively implemented.

Threats
- Without regulatory reform, reimbursement will remain slow and insufficient to reduce catastrophic health spending.

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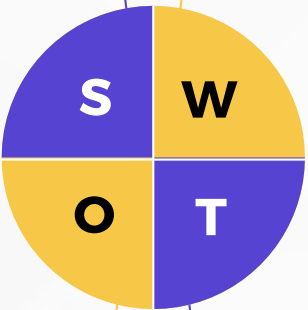
● A structured reimbursement system exists, ensuring biomarker testing is covered through national healthcare systems, insurance, or public-private partnerships. Patients face no direct financial burden.

◐ 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	○	○
Algeria	◐	◐
Ethiopia	○	○
Mexico	◐	◐
Brazil	◐	◐
Argentina	◐	◐
Chile	◐	◐
Colombia	◐	◐
New Zealand	◐	◐
Greece	◐	◐
Rwanda	○	○
Uganda	○	○
Serbia	●	●
Saudi Arabia	◐	◐
UAE	◐	◐
Syria	○	○
Indonesia	◐	○
Vietnam	◐	○
Philippines	○	○
Russia	◐	◐
Malaysia	◐	◐

International Cancer Patient Coalition

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Lung Cancer Screening

SWOT

Strengths
- Some pilot projects for lung health screening in industrial and oil-producing regions (e.g., Port Harcourt) have increased awareness of occupational risks.

Weakness
- No **national low-dose CT (LDCT) lung cancer screening program** exists; majority of diagnoses are symptom-driven.

Opportunity
- Targeted screening in high-risk populations (e.g., smokers, urban dwellers exposed to air pollution) could be piloted through NGOs and mobile clinics.

Threats
- Limited access to CT technology, especially in rural areas, and competing health priorities (e.g., infectious diseases) constrain resource allocation.

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