

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.

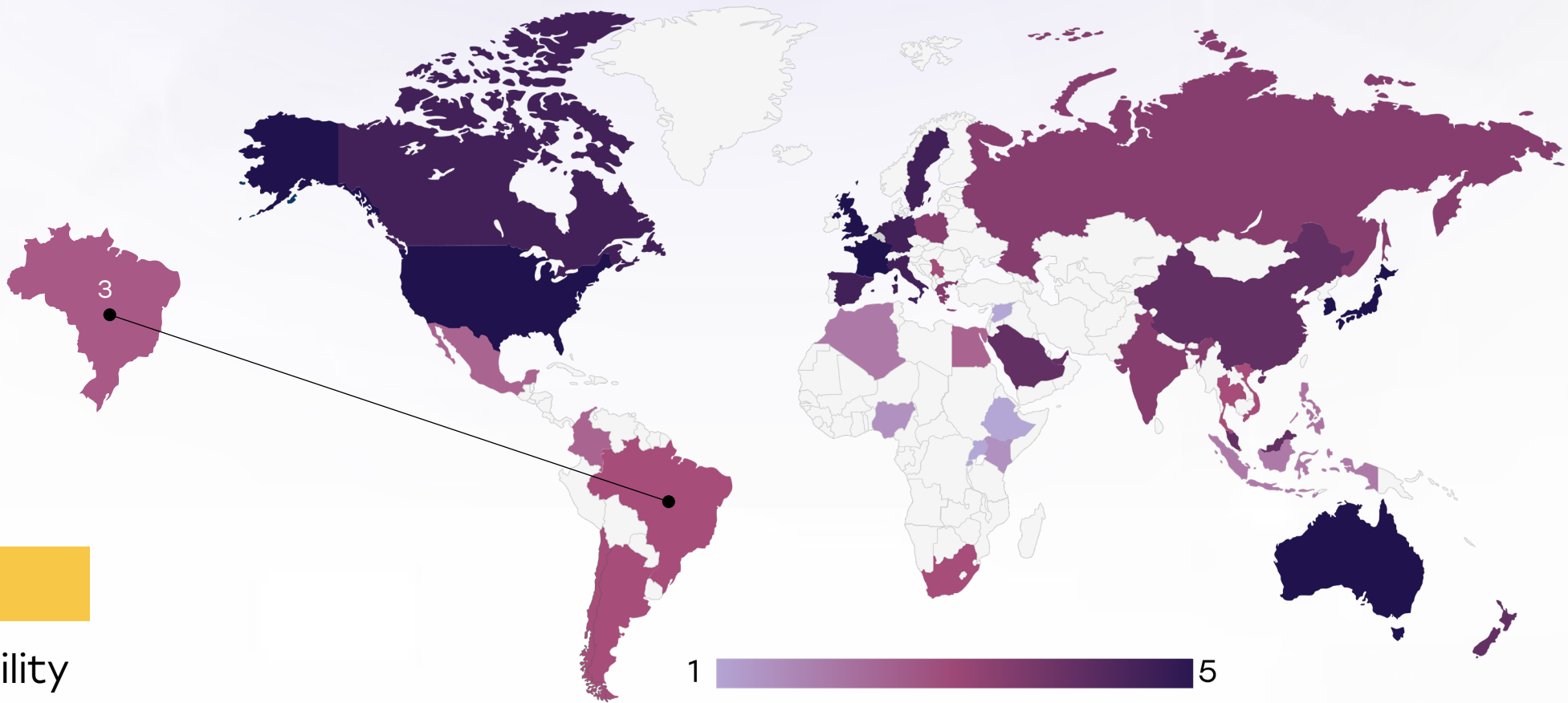
This factsheet provides a comprehensive overview of key pillars shaping lung cancer care, including specialized infrastructure, treatment accessibility, research funding, early detection, and palliative care.

- Incidence: Approximately 13,016 new lung cancer cases in 2022, making it the third most common cancer after breast and colorectal cancers.
- Mortality: Leading cause of cancer-related deaths, with over 10,673 deaths recorded in 2022.
- Age-Standardized Rates (ASR): Age-adjusted incidence rate of lung cancer was 215.48 cases per 100,000 inhabitants in 2022.
- Gender Disparities: Lung cancer mortality has decreased in men over the past two decades, with a similar declining trend observed in women since 2015.
- Survival Rate: Overall 5-year median survival rate is approximately 10.9%, lower than the 25.4% observed in the United States.
- Economic Burden: Estimated at \$556.2 million USD in 2023, accounting for about 1.4% of the nation's total healthcare expenditure.
- Smoking Prevalence: Tobacco consumption is a major risk factor, contributing to approximately 80% of lung cancer cases. In 2020, smoking was responsible for 44,758 deaths in Argentina, with one-third attributed to lung cancer and other tumors.
- Regional Variations: The city of Rosario has reported a notably high lung cancer mortality rate of 62.7 per 100,000 individuals.
- Molecular Testing: Molecular testing rate for non-small cell lung cancer (NSCLC) patients is 79%, the highest in Latin America. However, access remains limited in the public healthcare sector, with only 41% of patients having access.

Brazil

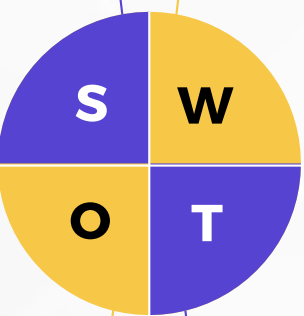


Infrastructure



Strengths

- 30% of cancer hospitals have specialized lung cancer units.
- Leading cancer institutes in São Paulo and Rio de Janeiro provide full-scale molecular profiling.



Weakness

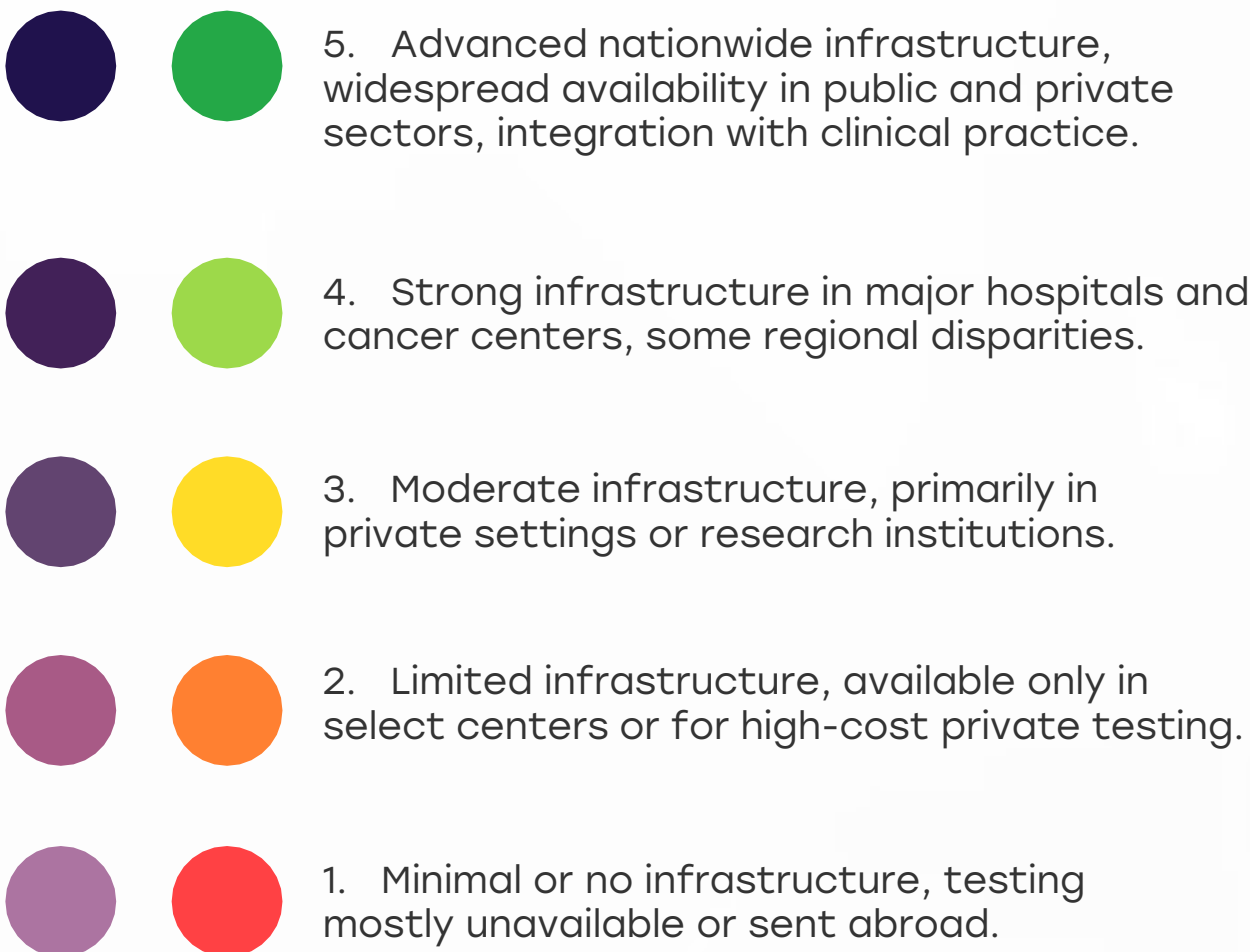
- Limited availability of genetic and molecular testing infrastructure.
- EGFR testing is only performed in 40% of lung cancer patients.







































Opportunity

- Investment in molecular diagnostics could improve treatment outcomes.
- Increased reimbursement policies could expand access to precision oncology services.

Threats

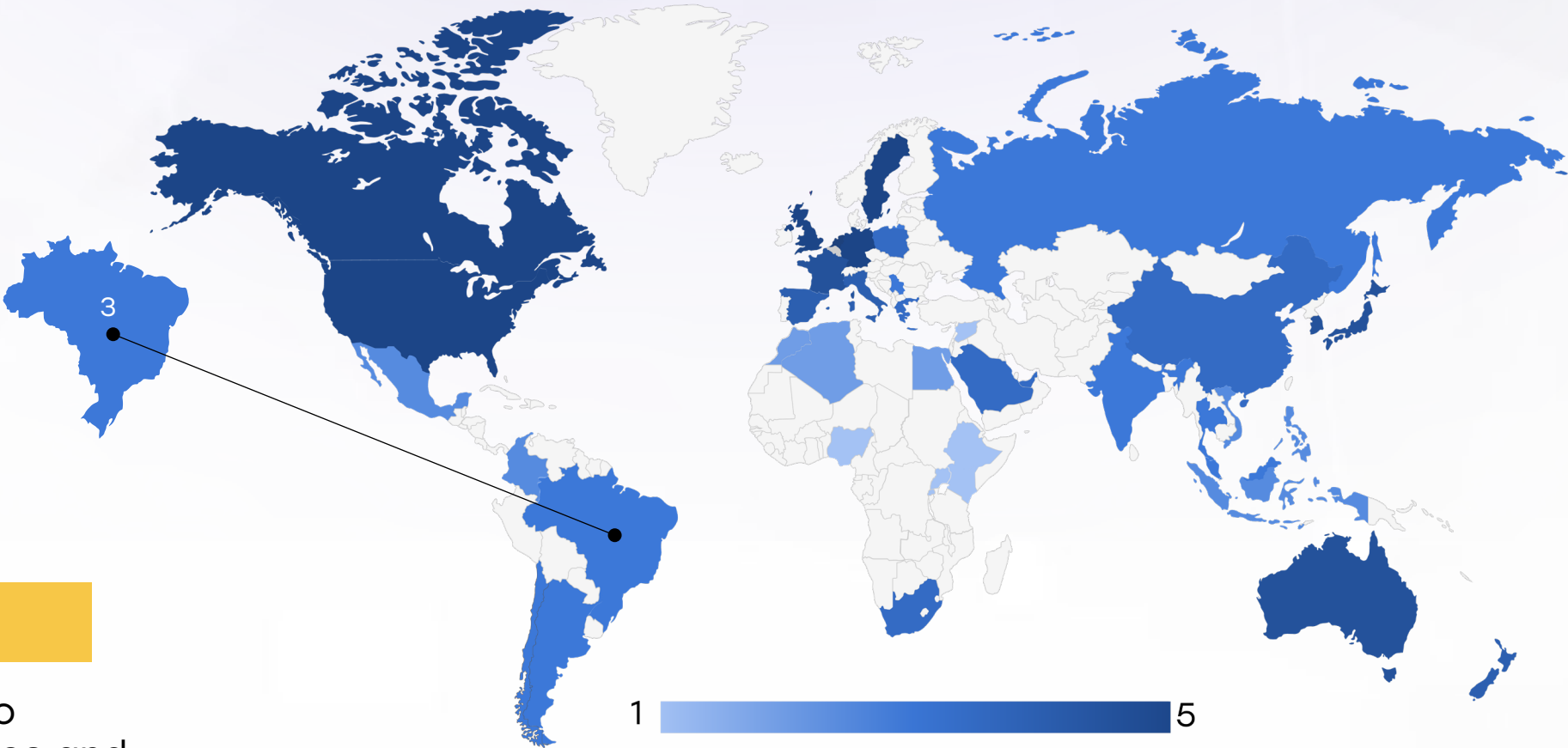
- Public hospitals face funding constraints, leading to delays in treatment.
- Regional disparities in the availability of specialized care.



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		

Brazil

Treatment Access, Research Funding and Awareness Campaigns



Strengths

- Public healthcare (SUS) covers standard chemotherapy and radiotherapy.
- Private healthcare providers offer advanced treatments.

Weakness

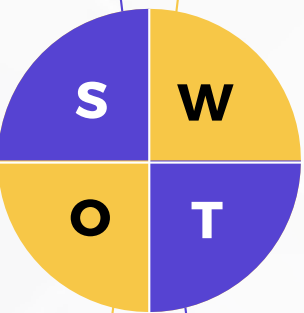
- Limited access to targeted therapies and immunotherapy in public hospitals.
- Only 25% of the population has private insurance, creating disparities in care.
- Research funding for lung cancer is relatively low (10-15% of national oncology research grants).

Opportunity

- Increased research funding could boost lung cancer studies and treatment advancements.
- Expanding public awareness campaigns could improve early detection and prevention efforts.
- Greater focus on equitable access to targeted therapies and immunotherapy in public hospitals.

Threats

- High smoking prevalence (especially among men: ~40%) continues to drive disease incidence.
- Competing healthcare priorities may push lung cancer further down the funding ladder.



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.



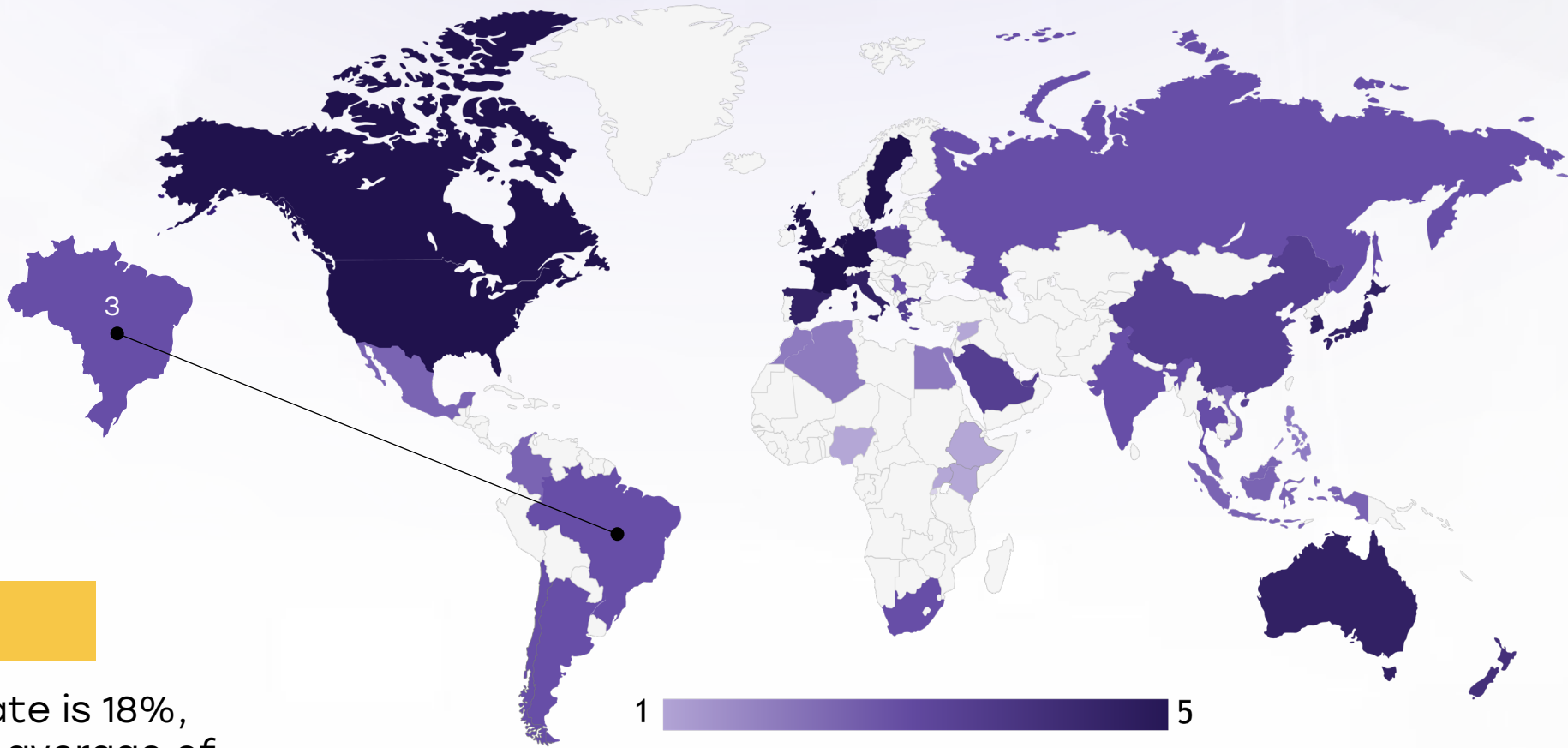
1. Poor infrastructure with severe barriers to treatment, little to no research funding, and lack of structured awareness campaigns. Cancer care is largely inaccessible, with many patients relying on out-of-pocket expenses or external aid.

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

Brazil



Survival Rates, Early Detection and Palliative Care



Strengths

- São Paulo and Rio de Janeiro have leading cancer centers with advanced diagnostic infrastructure.
- Palliative care services are expanding, with 30% of cancer centers offering dedicated palliative programs.

Weakness

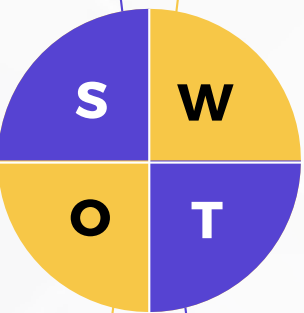
- 5-year survival rate is 18%, below the global average of 22%.
- No national low-dose CT (LDCT) screening program, and over 70% of cases are diagnosed at stage III or IV.
- Access to molecular biomarker testing is inconsistent between private and public healthcare sectors.

Opportunity

- Expanding low-dose CT screening programs could improve early detection.
- Increasing access to molecular biomarker testing across public healthcare sectors could improve treatment outcomes.

Threats

- Disparities in access to early detection, treatment, and palliative care between urban and rural populations.
- Delays in diagnosis and treatment in rural regions due to lack of specialized facilities.



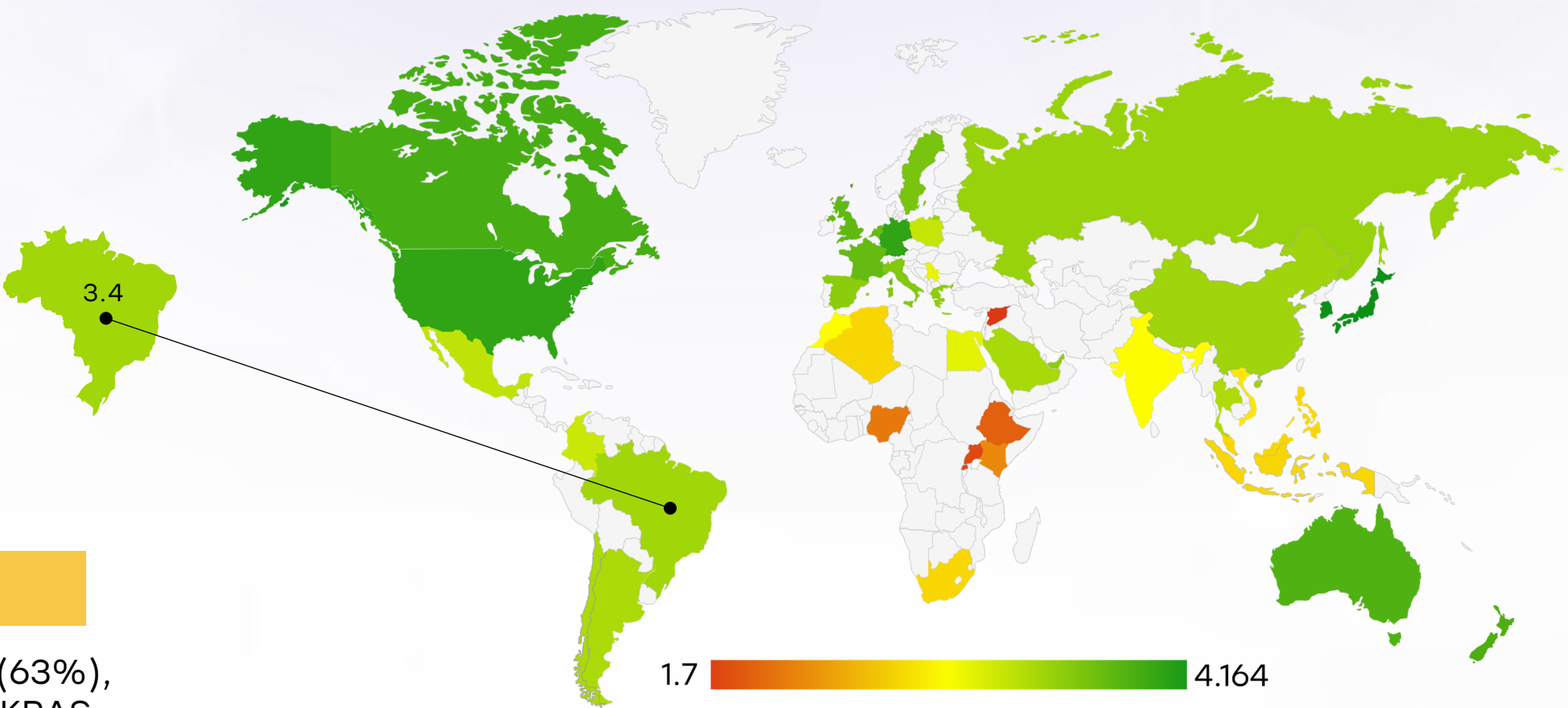
5. High survival rates, strong early detection programs, and well-established palliative care services. Patients have access to timely diagnosis, advanced treatments, and comprehensive end-of-life care.
4. Good survival rates, effective early detection efforts, and accessible but regionally limited palliative 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			
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			
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Serbia			
Saudi Arabia			
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Philippines			
Russia			
Malaysia			

Brazil

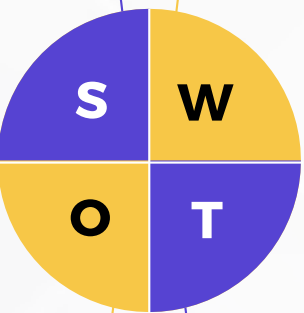


Utilization of Biomarkers



Strengths

- EGFR mutations are detected in 78% and ALK rearrangements in 73% of eligible patients.
- PD-L1 expression testing has an estimated 85% testing rate in major cancer centers.



Weakness

- MET (58%), ROS1 (63%), BRAF (53%), and KRAS (68%) testing rates are inconsistent, especially in public healthcare.
- Public hospitals rely on single-gene assays due to cost limitations.
- Testing wait times can exceed two months in public institutions.

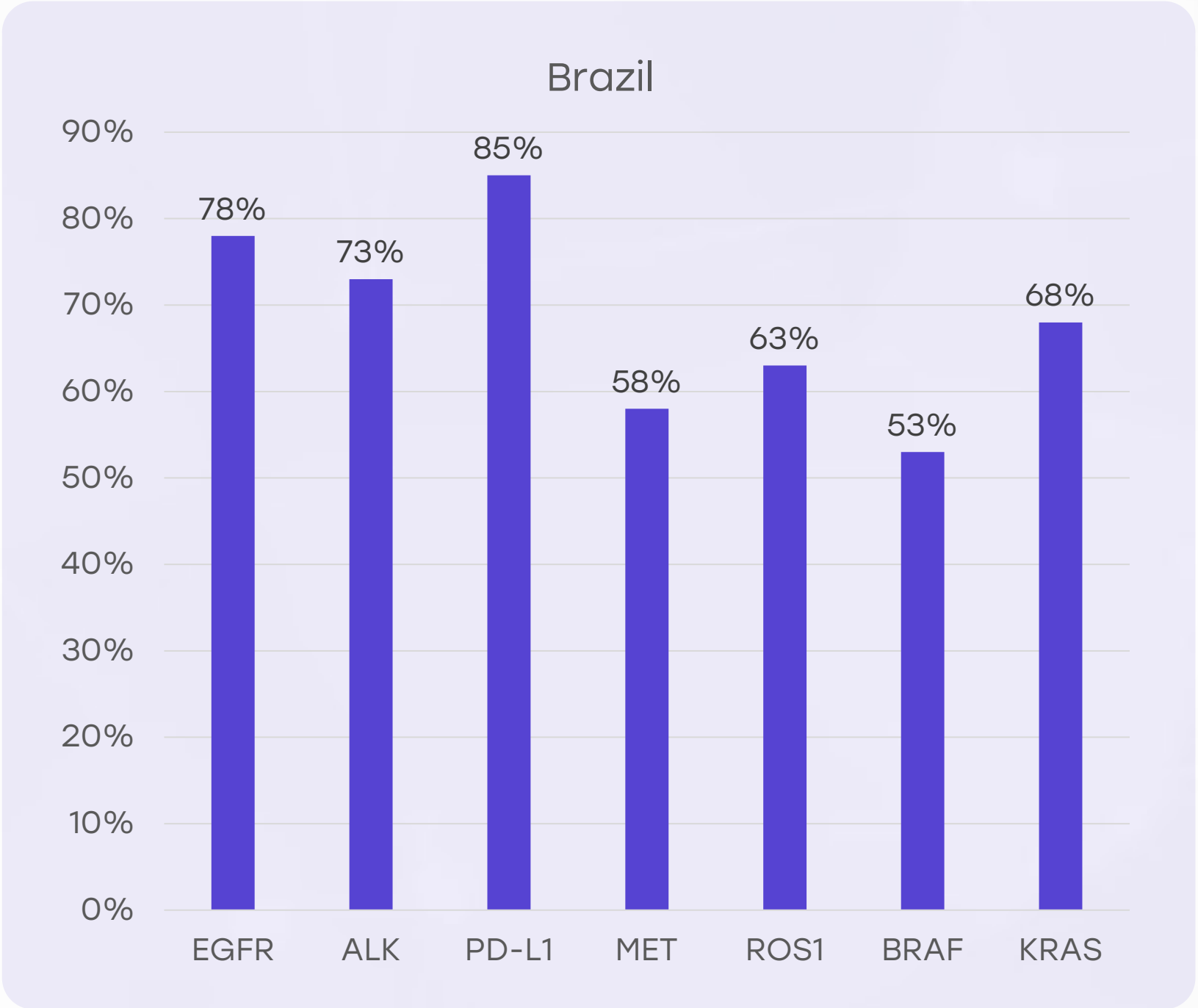
Opportunity

- Expanding NGS access in public healthcare could improve molecular profiling.
- Growing availability of liquid biopsy can support less invasive diagnostics, especially if extended to rural areas.

Threats

- Regional disparities limit access to timely and comprehensive biomarker testing.
- Financial barriers and restricted coverage under SUS hinder access to targeted therapies.

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.



Brazil



Clinical Guidelines

Strengths

- National guidelines are aligned with ESMO and NCCN, especially in major cancer centers.
- Private hospitals show strong integration of international standards.

Weakness

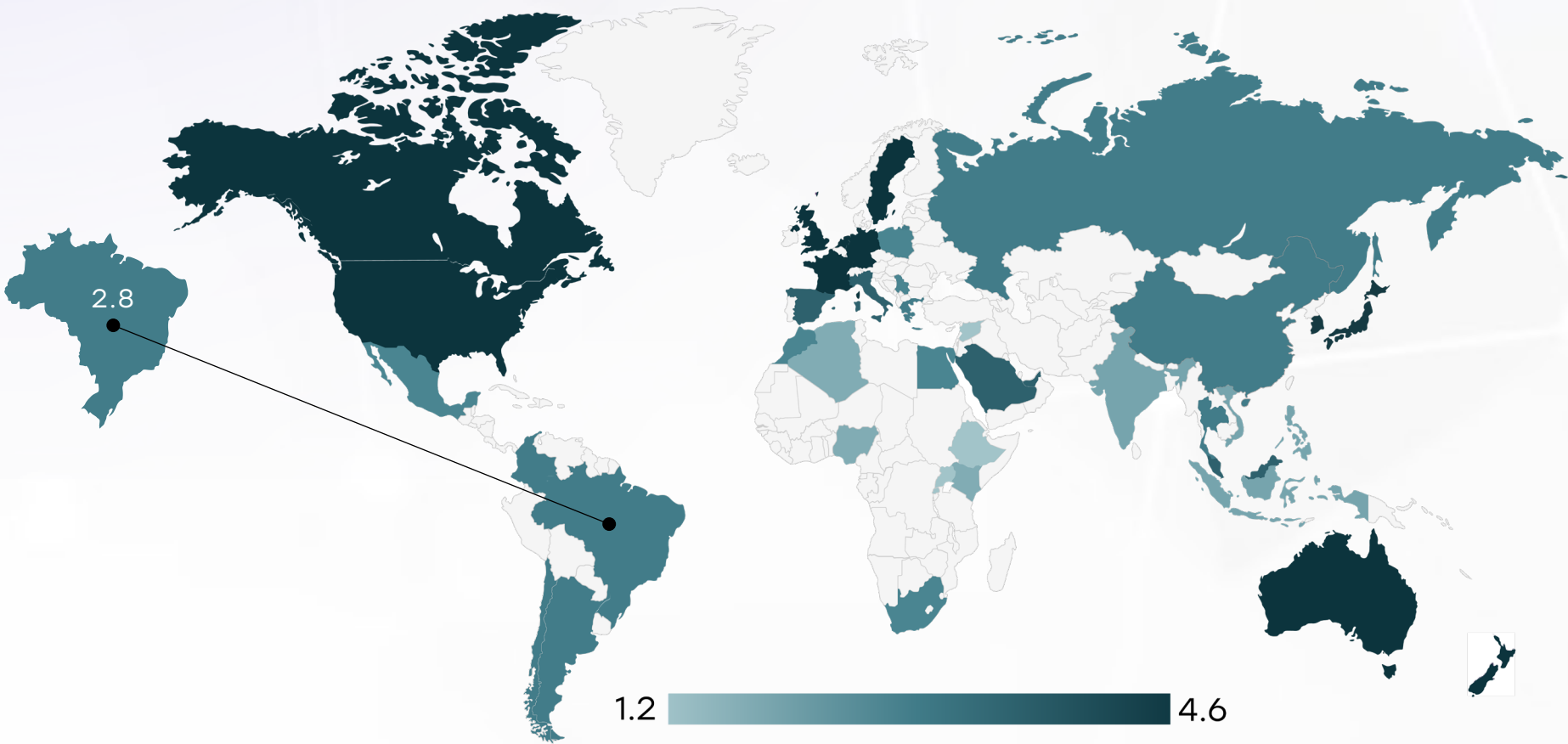
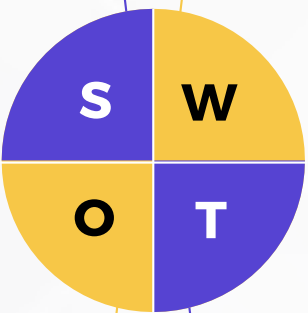
- Public sector implementation is inconsistent due to infrastructure and resource limitations.
- Adoption of newer therapies in SUS is delayed by regulatory and cost-effectiveness hurdles.

Opportunity

- Growing physician participation in international education programs can enhance guideline integration.
- Streamlining national protocols with global standards offers potential for more uniform care.

Threats

- Economic, logistical, and policy barriers hinder nationwide implementation.
- Regional disparities in infrastructure impact consistent adherence to guidelines.

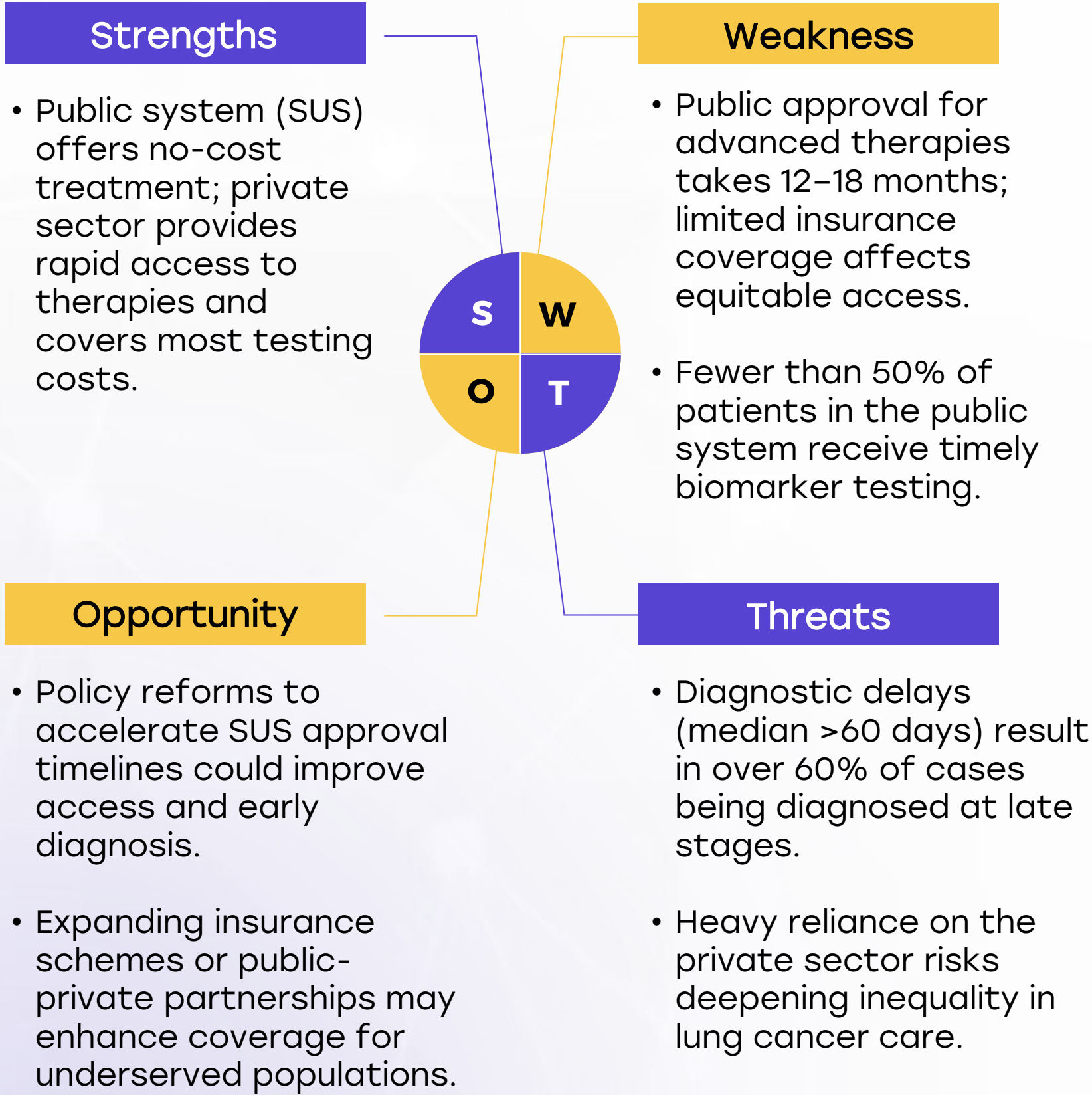





	Very High	High	Medium	Low	Very Low
Clinical Guideline Implementation	✗	✗	○	✗	✗
Feasibility of Integration	✗	✗	○	✗	✗
Adoption of International Guidelines	✗	✗	○	✗	✗
Engagement with Updates	✗	✗	✗	○	✗
ESMO Guidelines Implementation	✗	✗	○	✗	✗





















































































Brazil



Reimbursement



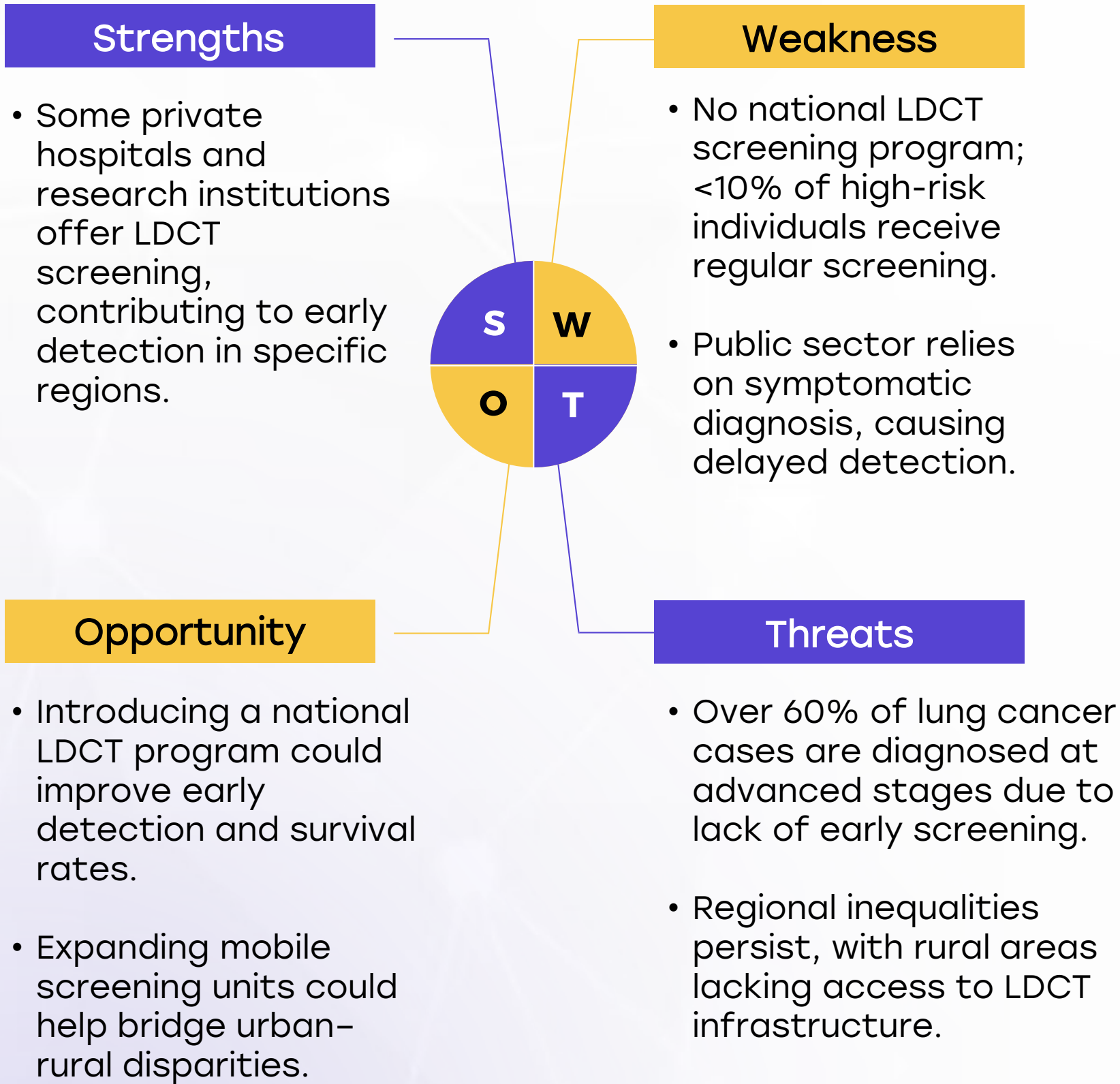
-  A structured reimbursement system exists, ensuring biomarker testing is covered through national healthcare systems, insurance, or public-private partnerships. Patients face no direct financial burden.
-  A reimbursement framework is in place, but patients may still have out-of-pocket expenses such 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		

Brazil



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

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
New 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