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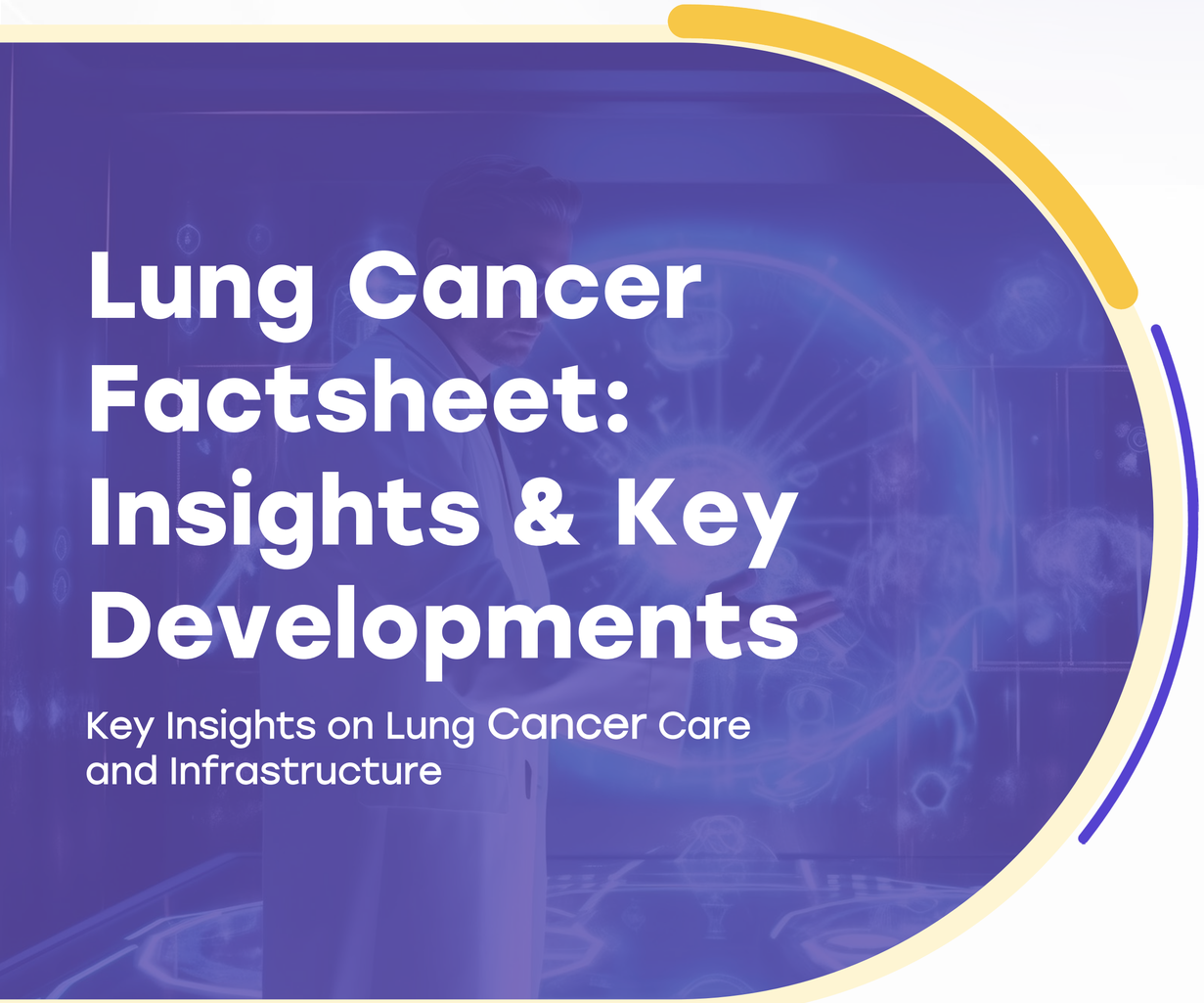

Lung Cancer Factsheet: Insights & Key Developments

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 (2022): ~850,000 new cases annually
- Incidence rate: ~58 per 100,000
- Lung cancer deaths (2022): ~715,000 deaths
- 5-year survival rate: ~19.7%
- 10-year survival rate: Data not specified
- Most affected age group: 60–74 years
- Daily new diagnoses: ~2,300 per day
- Daily deaths: ~1,960 per day
- Smoking prevalence (adults): ~26.6% (over 50% among men)
- Stage at diagnosis: ~70% diagnosed at late stages (Stage III or IV)
- Common histological type: Non-small cell lung cancer (NSCLC) is the most prevalent

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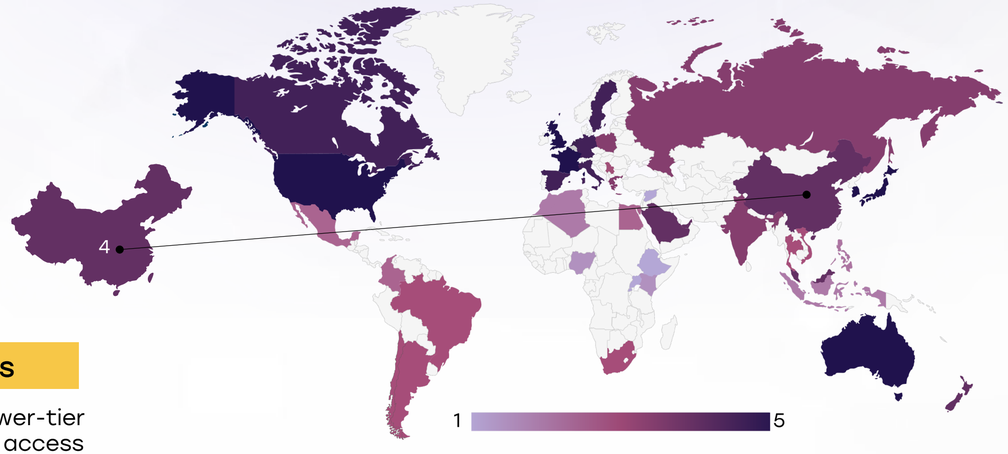
Infrastructure



Strengths

- Over 80% of Tier 3A hospitals in metropolitan areas offer molecular testing for key biomarkers like EGFR, ALK, and PD-L1.
- Leading cancer centers (e.g., National Cancer Center, Fudan University) drive advanced diagnostics and research.

Weakness

- Only 35% of lower-tier hospitals have access to molecular testing, creating urban-rural disparities.

S W O T

Opportunity

- The Healthy China 2030 plan aims to improve cancer care infrastructure and reduce regional disparities.

Threats

- Unequal access to molecular testing and treatment between urban and rural areas could perpetuate healthcare gaps.

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	3	3
Kenya	2	2
Nigeria	2	2
Egypt	2	3
Morocco	2	2
Algeria	2	2
Ethiopia	1	1
India	3	4
Japan	4	4
South Korea	4	4
China	4	4
Thailand	3	3
Singapore	4	4
United Kingdom	4	4
Germany	5	4
France	4	4
Netherlands	5	4
Sweden	5	4
Italy	4	3
Spain	4	3
Poland	4	3
Mexico	2	4
Brazil	3	3
Argentina	3	3
Chile	3	3
Colombia	2	4
United States	5	5
Canada	5	4
Australia	4	4
New Zealand	4	4
Greece	4	3
Rwanda	1	1
Uganda	1	1
Serbia	3	3
Saudi Arabia	4	4
UAE	4	3
Syria	1	1
Indonesia	2	2
Vietnam	4	4
Philippines	2	2
Russia	3	3
Malaysia	3	3

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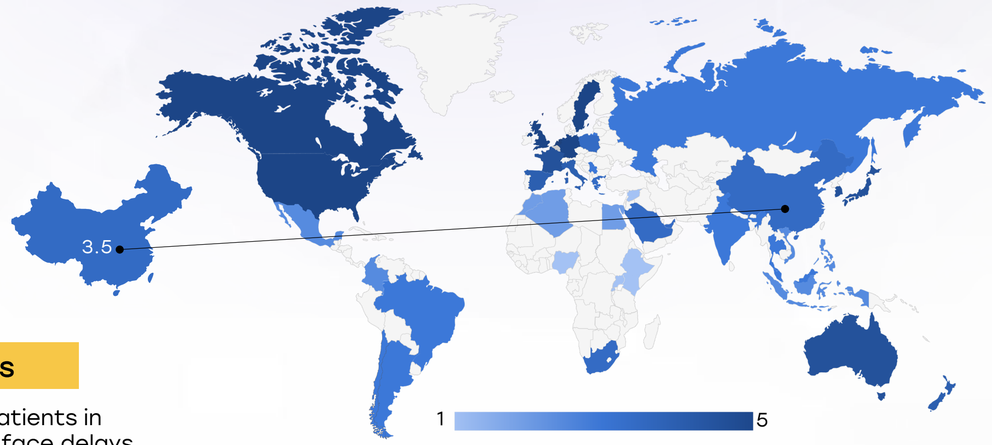
Treatment Access, Research Funding and Awareness Campaigns



Strengths

- Targeted therapies and immunotherapies like osimertinib and alectinib are available in major urban centers, with inclusion in the national reimbursement drug list improving access.
- Government-backed research programs, such as the National Key R&D Program, support translational research.

Weakness

- Over 40% of patients in western China face delays in receiving appropriate lung cancer care due to rural healthcare access gaps.
- Public awareness of early symptoms and screening is low in rural communities.

S W O T

Opportunity

- Continued investments in public education and awareness campaigns can bridge knowledge gaps in rural areas.
- Expansion of treatment access to rural areas through infrastructure development and policy reforms.

Threats

- Regional disparities in treatment access and public awareness may limit equitable cancer care outcomes.

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	3	3	4
Kenya	1	1	1
Nigeria	1	1	1
Egypt	2	2	2
Morocco	2	2	2
Algeria	2	2	2
Ethiopia	1	1	1
India	3	3	3
Japan	5	4	5
South Korea	5	4	5
China	4	3	4
Thailand	3	3	3
Singapore	5	5	5
United Kingdom	5	5	5
Germany	5	5	5
France	5	4	5
Netherlands	5	5	5
Sweden	5	5	5
Italy	5	4	4
Spain	5	4	4
Poland	4	3	4
Mexico	2	2	3
Brazil	3	3	3
Argentina	3	3	3
Chile	3	3	3
Colombia	2	2	3
United States	5	5	5
Canada	5	5	5
Australia	5	4	5
New Zealand	4	4	4
Greece	4	3	4
Rwanda	1	1	1
Uganda	1	1	1
Serbia	3	3	3
Saudi Arabia	4	3	4
UAE	4	3	4
Syria	1	1	1
Indonesia	3	2	3
Vietnam	3	2	3
Philippines	2	2	3
Russia	4	3	3
Malaysia	4	3	3

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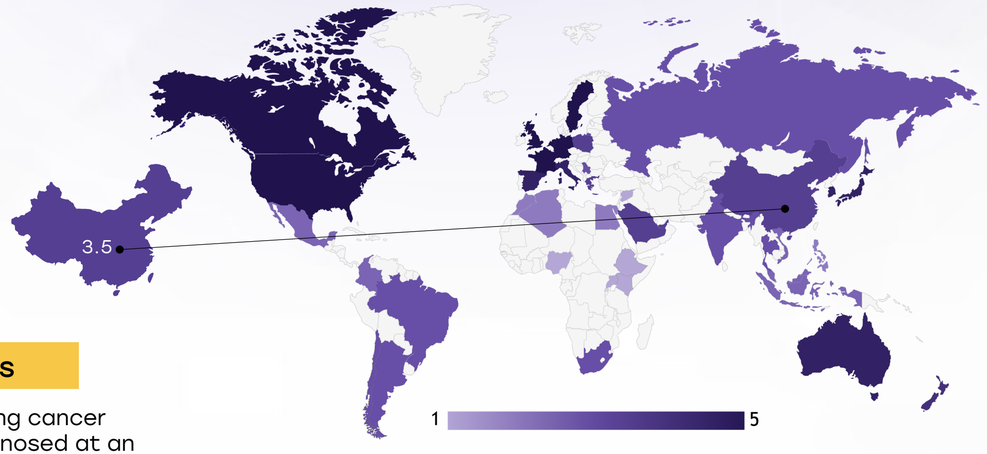
Survival Rates, Early Detection and Palliative Care



Strengths

- The 5-year survival rate for lung cancer has improved to 19.7%, with better outcomes in economically developed provinces like Beijing and Shanghai.
- The Healthy China 2030 initiative has boosted palliative care services, expanding specialized centers and pain management in urban areas.

Weakness

- Only 25% of lung cancer cases are diagnosed at an early stage, and access to LDCT screening is limited outside urban centers.
- Palliative care coverage remains limited in rural areas.

S W O T

Opportunity

- Expanding LDCT screening programs in urban and rural areas could improve early detection and survival rates.
- Scaling up community-based palliative care can enhance end-of-life support nationwide.

Threats

- Regional disparities in early detection and palliative care may hinder equitable improvements in survival outcomes.

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	3	3	3
Kenya	1	1	1
Nigeria	1	1	1
Egypt	2	2	2
Morocco	2	2	2
Algeria	2	2	2
Ethiopia	1	1	1
India	3	3	3
Japan	5	4	5
South Korea	5	4	5
China	3	3	4
Thailand	3	3	3
Singapore	5	5	5
United Kingdom	5	5	5
Germany	5	5	5
France	5	5	5
Netherlands	5	5	5
Sweden	5	5	5
Italy	5	4	5
Spain	5	4	5
Poland	3	3	4
Mexico	2	3	2
Brazil	3	3	3
Argentina	3	3	3
Chile	3	3	3
Colombia	2	3	2
United States	5	5	5
Canada	5	5	5
Australia	5	4	5
New Zealand	4	4	4
Greece	3	3	4
Rwanda	1	1	1
Uganda	1	1	1
Serbia	3	3	3
Saudi Arabia	4	3	4
UAE	4	3	4
Syria	1	1	1
Indonesia	3	2	3
Vietnam	3	2	3
Philippines	2	2	3
Russia	4	3	3
Malaysia	3	2	3

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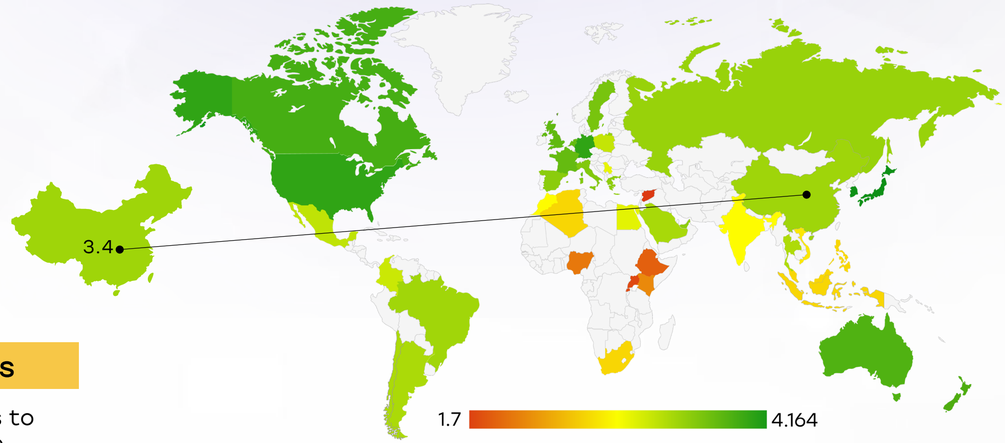
Utilization of Biomarkers



Strengths

- EGFR mutation testing covers about 80% of NSCLC patients, with high adoption in urban centers.
- PD-L1 expression testing is performed in approximately 85% of eligible patients, aiding immunotherapy decisions.

Weakness

- Limited access to comprehensive biomarker testing for MET, ROS1, BRAF, and KRAS outside major cities.
- Regional disparities in testing availability due to cost and infrastructure constraints.

S W O T

Opportunity

- Limited access to comprehensive biomarker testing for MET, ROS1, BRAF, and KRAS outside major cities.
- Regional disparities in testing availability due to cost and infrastructure constraints.

Threats

- Uneven access to molecular testing across urban and rural areas may hinder nationwide adoption of precision oncology.

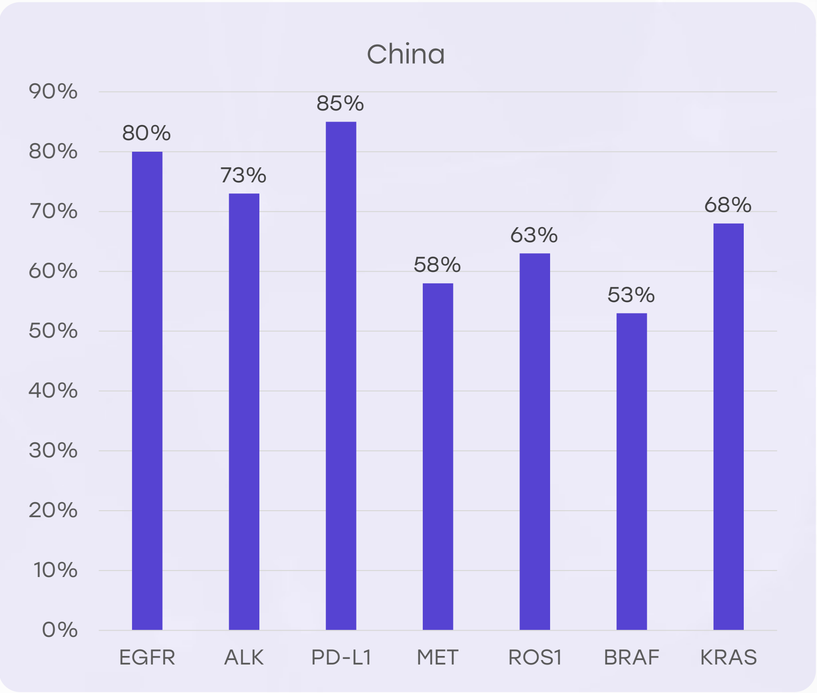
5. Biomarker testing is widely available and routinely performed as part of standard clinical practice. Strong integration into treatment decisions, with national coverage and reimbursement ensuring accessibility.

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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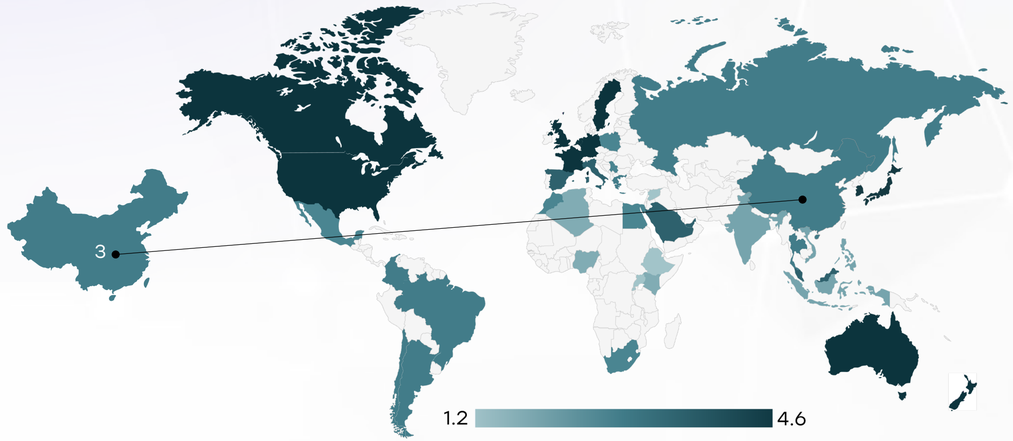
Clinical Guidelines



Strengths

- Top-tier hospitals and academic institutions are aligning with international clinical guidelines, including those from CSCO, ESMO, and NCCN.
- Guidelines in major centers are increasingly harmonized with global standards.

Weakness

- Regional disparities in guideline implementation, with inconsistent adoption in rural and under-resourced areas.
- Delays in integrating the latest global evidence into national practice due to regulatory and translation processes.

S W O T

Opportunity

- Bridging regional gaps through targeted training and resources could improve nationwide guideline adherence.
- Enhancing the real-time uptake of global guideline updates could standardize care.

Threats

- Delays and inconsistent implementation in less-resourced areas may limit the full impact of guideline-driven improvements across China.

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

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Reimbursement

Strengths

- Government-backed health insurance schemes (UEBMI and URRBMI) provide coverage for core cancer treatments like diagnostics, surgery, chemotherapy, and radiotherapy.
- Successful inclusion of osimertinib in the National Reimbursement Drug List (NRDL) after negotiations.

Weakness

- Limited reimbursement for targeted therapies and immunotherapies, leading to significant out-of-pocket expenses.
- Disparities in coverage across provinces and insurance types, with rural populations facing greater financial barriers.

S W O T

Opportunity

- Ongoing policy reforms and drug price negotiations could expand access to novel therapies and reduce financial burdens.

Threats

- Incomplete reimbursement for advanced treatments and biomarker testing may hinder equitable access, particularly for rural and underserved populations.

● 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	●	●

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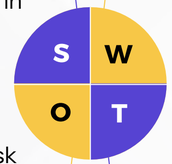
Lung Cancer Screening

Strengths

- Pilot initiatives like the Cancer Screening Program in Urban China (CanSPUC) provide LDCT screening for high-risk populations in select provinces.
- Targeted screening for individuals aged 40–74 with significant smoking history or exposure to risk factors like air pollution.

Weakness

- Limited screening uptake, with participation below 30% among eligible individuals due to healthcare access disparities and lack of public awareness.
- Uneven infrastructure and regional disparities between urban and rural areas.



Opportunity

- Expanding pilot programs and integrating LDCT into national health policy could improve early detection rates.

Threats

- Continued low participation in screening programs, especially in rural regions, may hinder progress in early lung cancer detection and improve survival outcomes.

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
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