International Cancer Patient Coalition

Saudi Arabia

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 share: Among the top 5 cancers in men; less common in women
- Incidence rate:
- Men: Approximately 4.8 per 100,000
- Women: Approximately 1.3 per 100,000
- Overall: Around 3–4 per 100,000 population
- Total new cases (2020): Around 450–500 cases per year
- Daily diagnoses: About 1–2 new cases per day
- Deaths: Approximately 250 deaths annually; mortality-to-incidence ratio around 50–53%
- 5-year survival rate: Very low; most cases diagnosed at advanced stages; only around 14% detected early
- Most affected age group: Primarily adults aged 60 years and older, with a sharp rise in incidence among those over 75
- Screening participation: No national lung cancer screening program; early detection is limited due to low awareness, overlap with tuberculosis symptoms, and absence of organized efforts

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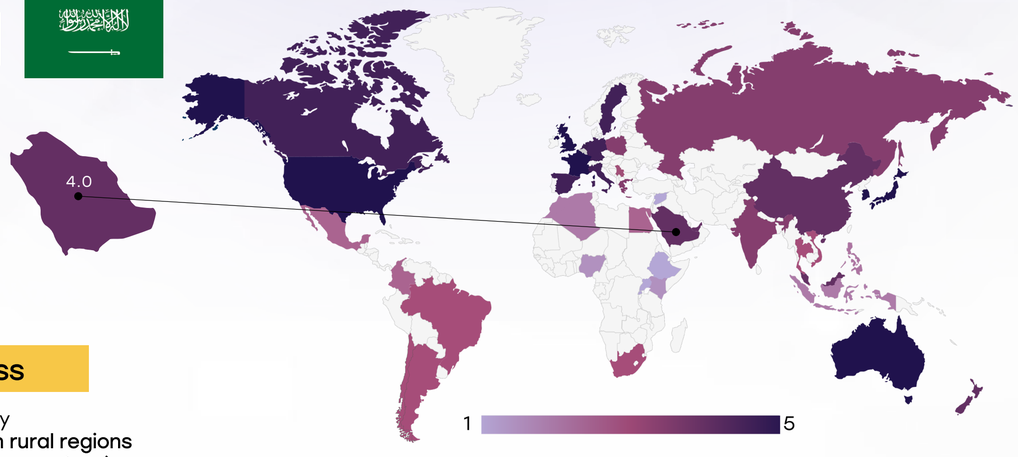
Infrastructure



Strengths

- Advanced cancer centers including **King Faisal Specialist Hospital & Research Centre (Riyadh & Jeddah), King Fahad Medical City,** and **National Guard Health Affairs.**
- Availability of **PET-CT, EBUS, thoracic surgery, stereotactic radiotherapy (SBRT), and robotic surgery** in major cities.
- Government prioritization of oncology under **Saudi Vision 2030.**

Weakness

- Limited oncology infrastructure **in rural regions and smaller governorates (e.g., Najran, Jizan).**
- Over-centralization of services in **Riyadh, Jeddah, and Dammam.**

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Opportunity

- Expand **satellite cancer clinics** and **tele-oncology services** to underserved areas.
- Invest in **regional diagnostic labs** and **mobile screening units.**

Threats

- Workforce shortages in specialized oncology disciplines like **radiation oncology and interventional pulmonology.**
- Potential overdependence on **foreign-trained professionals**

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	1	2
Nigeria	1	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	4
Spain	4	4
Poland	4	3
Mexico	2	3
Brazil	3	3
Argentina	3	3
Chile	3	3
Colombia	2	3
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	4
Syria	1	1
Indonesia	2	2
Vietnam	3	3
Philippines	2	2
Russia	4	3
Malaysia	4	4

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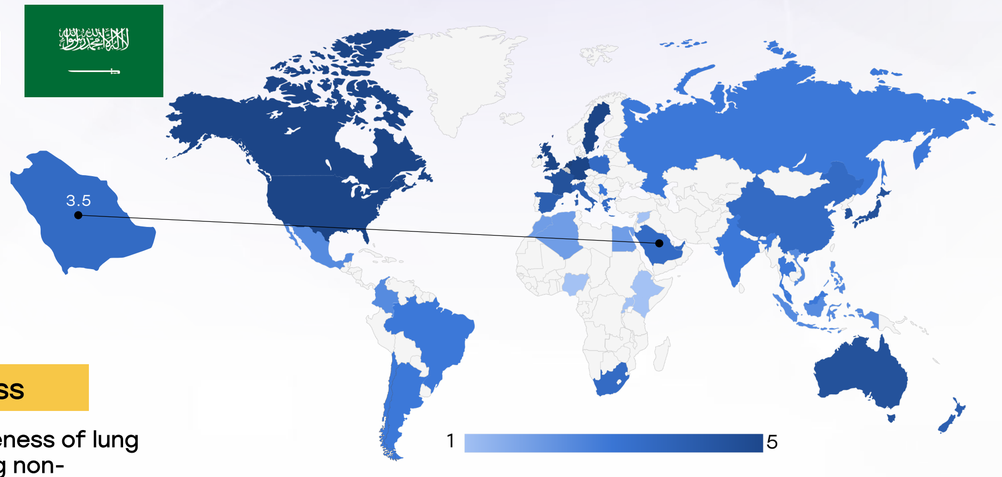
Treatment Access, Research Funding and Awareness Campaigns



Strengths

- Free cancer treatment for Saudi citizens through the **public healthcare system.**
- Availability of **EGFR, ALK inhibitors, PD-1 immunotherapy (e.g., pembrolizumab, nivolumab)** in tertiary centers.
- National campaigns on smoking cessation (e.g., **"Anti-Smoking Program", Mawid app reminders**).

Weakness

- **Limited awareness of lung cancer among non-smokers,** especially women and younger adults.
- Low **enrollment in international clinical trials** despite good infrastructure.

Opportunity

- Launch **nationwide awareness campaigns** focused on early detection and symptom recognition.
- Strengthen **research partnerships** with international pharma and GCC countries.

Threats

- High costs of new drugs could strain public budgets as lung cancer burden increases.
- Public perception that **lung cancer equals smoking** delays early detection in non-smokers.

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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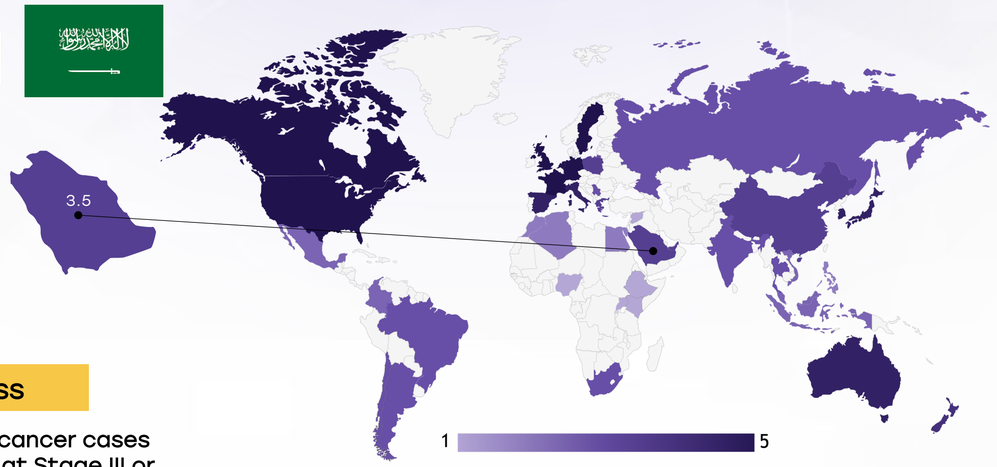
Survival Rates, Early Detection and Palliative Care



Strengths

- Early-stage cases treated in top hospitals report **5-year survival >55%.**
- Palliative care departments are expanding in **MOH hospitals** and **specialized cancer centers.**
- Access to modern radiotherapy and **multidisciplinary teams** in major hospitals.

Weakness

- **~70% of lung cancer cases are detected at Stage III or IV,** especially in peripheral regions.
- Palliative care not **consistently integrated at primary care level.**
- Cultural reluctance toward **advance care planning and palliative referrals.**

Opportunity

- Train GPs and family physicians in **early detection and referral** protocols.
- Scale **home-based palliative care** with family education.

Threats

- Delays in diagnosis impact survival even with availability of treatment.
- Regional disparities in palliative care limit quality of life for rural patients.

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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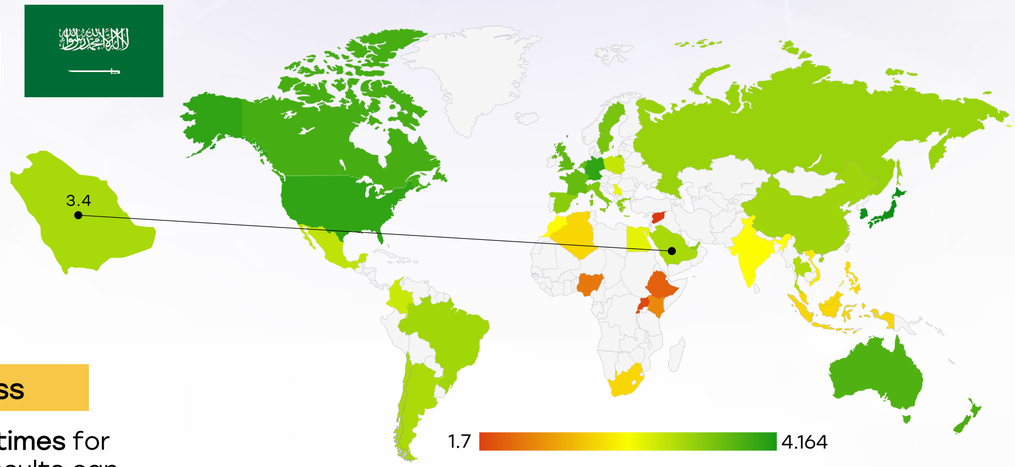
Utilization of Biomarkers



Strengths

- Advanced tertiary centers conduct **EGFR, ALK, ROS1, PD-L1, and NGS panel testing.**
- **Precision oncology** is part of Saudi cancer care transformation plans.

Weakness

- **Turnaround times** for biomarker results can be long (1–3 weeks), especially if samples are sent to central labs.
- **Limited access in secondary-level hospitals.**

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Opportunity

- Expand regional molecular pathology labs.
- Introduce real-time biomarker result platforms across public and private hospitals.

Threats

- Reagent and equipment shortages may disrupt testing.
- Unequal access to testing could lead to **non-personalized treatment pathways.**

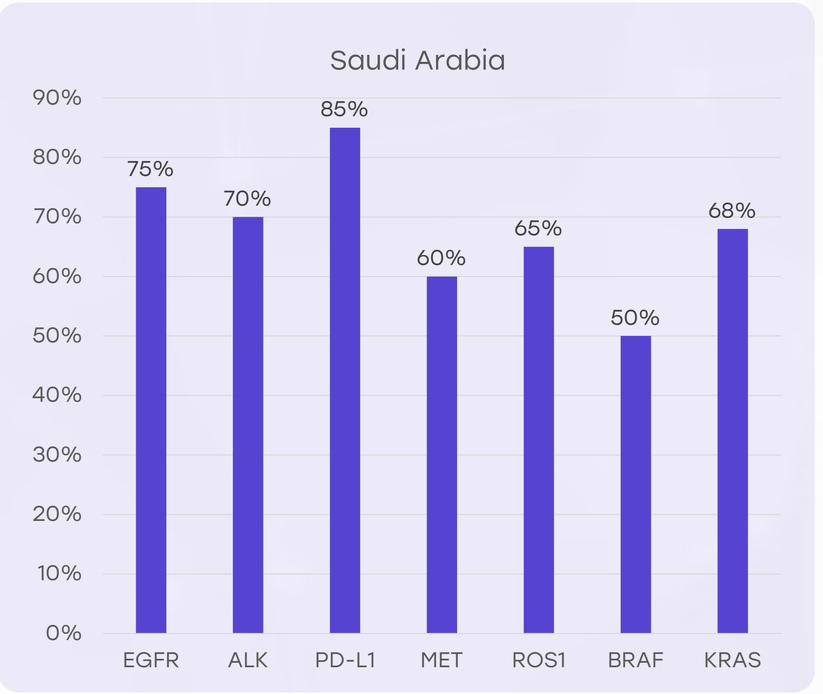
5. Biomarker testing is widely available and routinely performed as part of standard clinical practice. Strong integration into treatment decisions, with national coverage and reimbursement ensuring accessibility.

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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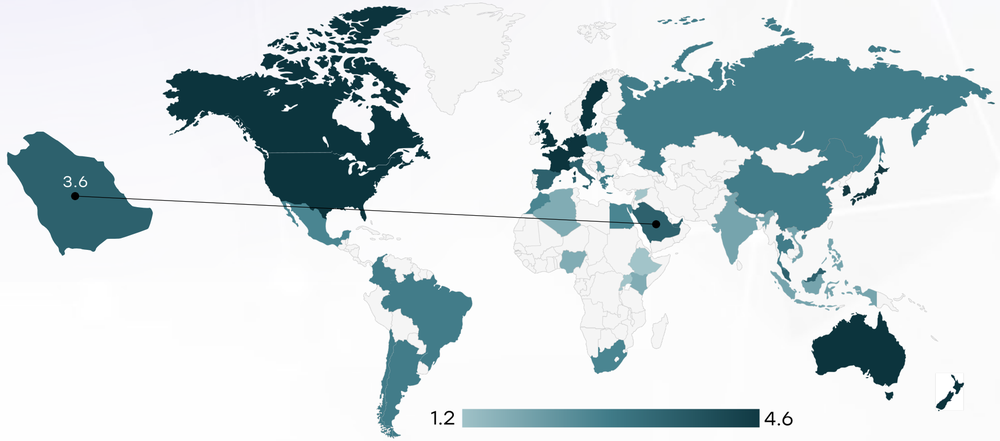
Clinical Guidelines



Strengths

- National guidelines for lung cancer issued by **Saudi Oncology Society** and aligned with **NCCN/ESMO** standards.
- Hospitals regularly use **multidisciplinary tumor boards** for case planning.

Weakness

- Variability in **implementation of guidelines at secondary hospitals.**
- Gaps in **early-stage triage by general practitioners.**

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Opportunity

- Embed **clinical decision-support tools** into hospital EMRs.
- Expand **CME programs and e-learning modules** on lung cancer triage and treatment.

Threats

- Rapid updates in global guidelines may not be timely adapted to national settings.
- Physicians in rural areas may default to outdated practices due **to lack of refresher training.**

	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

Strengths

- Comprehensive cancer care including diagnostics, surgery, and advanced treatments are **free for citizens** under the public system.
- Expatriates with insurance often have partial coverage for **standard therapies.**

Weakness

- **Advanced treatments and biomarker tests for expats may not be fully reimbursed.**
- No **uniform co-payment cap system** across private providers.

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Opportunity

- Extend coverage **for innovative therapies to all residents** under tiered or subsidized plans.
- Include **biomarker tests in base insurance packages.**

Threats

- Future increase in **high-cost therapies** may test public sustainability.
- Unequal access among **uninsured or low-tier insured expats.**

● 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

- Low-dose CT (LDCT) screening being piloted for high-risk populations in **Riyadh and Jeddah.**
- Screening efforts supported by **tobacco cessation and AI-enhanced diagnostics.**

Weakness

- **No nationwide LDCT screening program yet.**
- Low uptake due to **limited awareness among high-risk groups,** especially in **industrial workers and rural areas.**

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Opportunity

- Integrate **screening eligibility checks** into primary care visits via digital health records.
- Partner with **workplace wellness programs** in oil, gas, and construction sectors for screening access.

Threats

- LDCT resource constraints may limit expansion in smaller cities.
- **False positives and overdiagnosis risks** without proper triage systems.

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