

South Korea 💨



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.

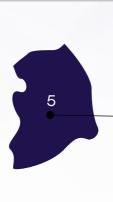
- Lung cancer incidence: ~30,000 new cases annually
- Incidence rate: ~58 per 100,000 population
- Lung cancer deaths annually: ~17,000
- · Leading cause of cancer-related deaths in South Korea
- More common in men, but increasing among women and non-smokers
- Most affected age group: 65 years and older
- 5-year survival rate: ~34% overall (higher for early-stage cases)
- Non-smokers: ~20-30% of cases, especially among women
- Adenocarcinoma is the most common subtype
- High prevalence of EGFR mutations (~40% in non-small cell lung cancer patients)
- Advanced molecular testing and targeted therapies widely used
- Nationwide lung cancer screening program launched in 2019 for high-risk individuals aged 55-74 with a history of heavy smoking
- Early-stage detection improving due to screening and awareness



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Infrastructure



Strengths

 Advanced healthcare infrastructure with specialized cancer centers such as the National Cancer Center Korea (Goyang), Seoul National University Hospital, and Samsung Medical Center providing cutting-edge diagnostics and treatment.

Opportunity

• Expansion of digital health and AI-supported diagnostics (e.g. image analysis) can improve outreach and efficiency.

Weakness

 Regional disparities exist-rural and elderly populations may face delays or travel burdens for accessing high-tech services.

Threats

Aging population

cancer incidence

tertiary facilities.

may overburden

and rising lung

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

Country	Specialized Centers	Genetic & Molecular Testing Infrastructure
South Africa	0	<u> </u>
Kenya		
Nigeria		
Egypt	0	
Morocco		
Algeria	0	
Ethiopia		
India	0	0
Japan	0	
South Korea		
China	0	0
Thailand	0	<u> </u>
Singapore		
United Kingdom		
Germany		0
France		
Netherlands		
Sweden		
Italy		
Spain		
Poland	0	<u> </u>
Mexico	0	<u> </u>
Brazil	0	<u> </u>
Argentina	0	<u> </u>
Chile	0	<u> </u>
Colombia	0	<u> </u>
United States		
Canada		0
Australia	0	
New Zealand	0	0
Greece	0	<u> </u>
Rwanda		
Uganda		
Serbia	0	<u> </u>
Saudi Arabia	0	0
UAE	0	0
Syria	0	0
Indonesia	0	
Vietnam	0	0
Philippines	0	0
Russia	0	0
Malaysia		



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Treatment Access, Research Funding and Awareness Campaigns



Strengths

 Universal National Health Insurance (NHI) covers most cancer treatments, including surgery, chemotherapy, radiotherapy, and selected targeted therapies.

Weakness

 High out-of-pocket costs for certain newer therapies and services not fully covered by NHI can be a barrier.

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.

Opportunity

• South Korea invests heavily in cancer R&D-KRW 50+ billion/year for precision oncology research via government programs.

Threats

 Public perception of lung cancer remains closely tied to smoking, which may reduce early helpseeking and participation in campaigns.

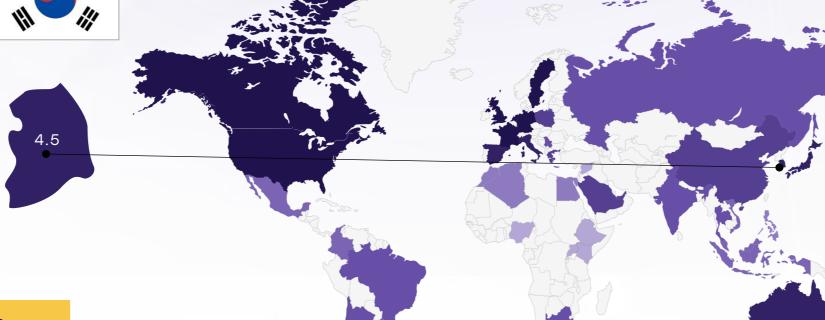




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Survival Rates, Early **Detection** and Palliative Care





Strengths

• The 5-year relative survival rate for lung cancer improved to around **34.7%** in 2021-higher than many OECD countries.



Weakness

 Despite high screening uptake, non-smokingrelated lung cancers (especially in women) are on the rise and harder to detect early.



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-oflife 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.

available but not widespread, and palliative care

services mainly in urban centers. Some patients

3. Moderate survival rates, early detection



• Expansion of homebased and integrated palliative services supported by national initiatives (e.g. the "Hospice and Palliative Care Act").

Threats

• Palliative care services are still hospital-centeredrural and aging populations may face access limitations.



2. Low survival rates, early detection efforts are inconsistent or underfunded, and palliative care is minimal or only available in select hospitals. Cancer

experience delays in diagnosis or limited end-of-life



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.

patients face significant access barriers.

Country	Survival Rates	Early Detection	Palliative Care
South Africa	<u> </u>	0	0
Kenya			
Nigeria			
Egypt			
Morocco			
Algeria			
Ethiopia			
India	0	0	<u> </u>
Japan			
South Korea		0	
China	<u> </u>	0	
Thailand	<u> </u>	0	<u> </u>
Singapore			
United Kingdom			
Germany			
France			
Netherlands			
Sweden			
Italy			
Spain			
Poland	<u> </u>	0	
Mexico		0	
Brazil	<u> </u>	0	<u> </u>
Argentina	<u> </u>	0	<u> </u>
Chile	0	0	<u> </u>
Colombia		0	
United States			
Canada			
Australia			
New Zealand			
Greece	<u> </u>	<u> </u>	0
Rwanda			
Uganda			
Serbia	<u> </u>	0	<u> </u>
Saudi Arabia		0	
UAE		0	
Syria			
Indonesia	<u> </u>		<u> </u>
Vietnam			<u> </u>
Philippines			<u> </u>
Russia			<u> </u>
Malaysia			





Utilization of Biomarkers

Strengths

 Widespread availability of EGFR, ALK, ROS1, and PD-L1 testingenabled through NHI reimbursement and centralized labs.

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Weakness

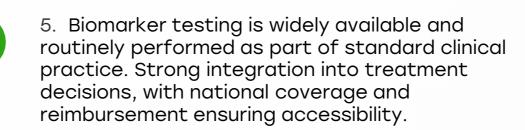
• Turnaround time for NGS panels and limited regional lab access can delay decisions outside Seoul and large cities.

Opportunity

 Government's "Korean Precision Medicine Initiative" supports scaling up nationwide access to genomic testing for cancer.

Threats

• Rapid expansion of biomarker demand may outpace trained workforce and bioinformatics capacity in certain areas.

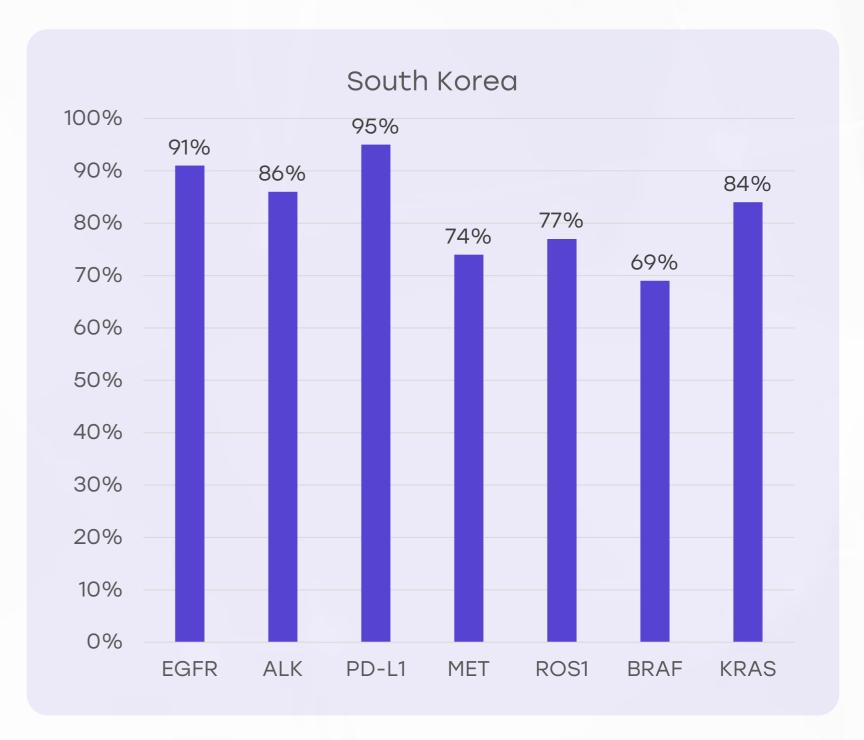


4. Biomarker testing is commonly used, but access may be limited in certain regions or patient groups. Some disparities exist in coverage or affordability, but it is still a crucial part of cancer diagnostics

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.

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.



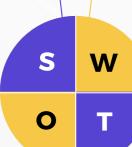




Clinical Guidelines

Strengths

• National evidencebased clinical guidelines are regularly updated by the Korean Lung Cancer Society and Korean Cancer Association.



Weakness

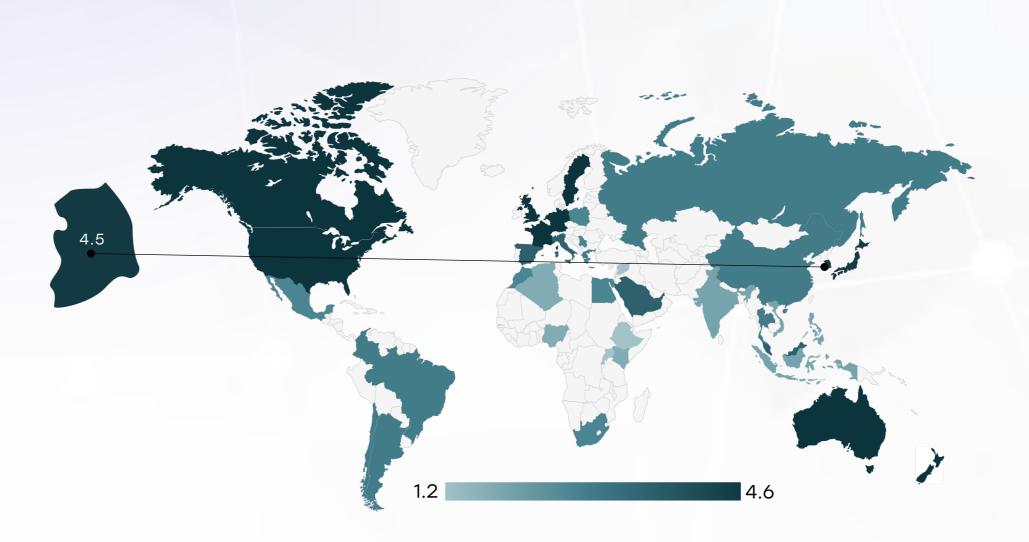
• Variations in adherence exist between top-tier academic hospitals and smaller regional clinics.

Opportunity

 Integration of clinical guidelines into digital platforms and hospital information systems could enhance compliance and decision support.

Threats

 Rising incidence of complex subtypes (e.g. non-smoking adenocarcinomas) may challenge standardized guideline pathways.



	Very High	High	Medium	Low	Very Low
Clinical Guideline Implementation	0	*	*	×	*
Feasibility of Integration	0	*	*	*	*
Adoption of International Guidelines	0	*	*	*	*
Engagement with Updates	*	0	*	*	*
ESMO Guidelines Implementation	0	*	*	×	*

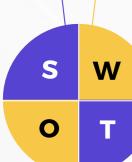




Reimbursement

Strengths

 NHI system reimburses key therapies including chemotherapy, targeted therapy, and immunotherapy; co-payments are capped for cancer patients.



Weakness

• Some novel therapies (e.g., third-line targeted therapies, certain antibodydrug conjugates) may face delays in approval and reimbursement.

Opportunity

• Reforms in health technology assessment are accelerating approval timelines for innovative drugs.

Threats

• Budget constraints in the NHI system due to high demand for expensive precision oncology may affect long-term sustainability.



- A structured reimbursement system exists, ensuring biomarker testing is covered through national healthcare systems, insurance, or publicprivate 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		0
United Kingdom		
Canada		
Australia		
Germany		
France		
Netherlands		
Sweden		
Italy		
Spain		
Poland		
Japan		
South Korea		
China		
India		\bigcirc
Singapore		
Thailand		0
South Africa	0	0
Kenya	0	0
Nigeria	0	0
Egypt	0	0
Morocco	0	0
Algeria		
Ethiopia	0	0
Mexico		
Brazil		
Argentina		
Chile		
Colombia		
New Zealand		
Greece		
Rwanda	0	0
Uganda	0	0
Serbia		
Saudi Arabia		
UAE		
Syria	0	0
Indonesia		0
Vietnam		0
Philippines	0	0
Russia		
Malaysia		

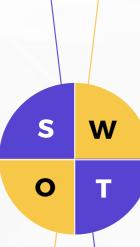




Lung Cancer Screening

Strengths

• South Korea is among the first countries to implement a national low-dose CT (LDCT) lung cancer screening program for highrisk groups, launched in 2019.



Weakness

 Screening program uptake varies; only about **30-35%** of eligible high-risk individuals participated in early years.

Opportunity

 Improved public education and digital invitation systems could boost participation; mobile units may reach underserved areas.

Threats

 Overdiagnosis concerns and capacity strain (e.g. radiologist shortages) could challenge the program's long-term effectiveness.

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