

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: ~48,500 new cases annually
- Incidence rate: ~82.6 per 100,000 people
- Gender distribution:
 - Men: ~24,500 cases/year
 - Women: ~24,000 cases/year (increasing trend among women)
- Most affected age group: 70-74 years
- Lung cancer deaths annually: ~34,800 deaths
- 5-year survival rate: ~17% overall (varies by stage)
- 1-year survival rate: ~44%
- 10-year survival rate: ~10%
- Stage at diagnosis:
 - ~48% diagnosed at Stage III or IV
 - ~20% diagnosed at early stage (Stage I)
- Screening program:
 - Targeted low-dose CT screening piloted for high-risk groups
 - Full national rollout in progress
- Smoking-related cases: ~70% of lung cancer cases linked to smoking
- Molecular testing availability: Widely available (EGFR, ALK, ROS1, PD-L1, etc.)
- Awareness campaigns: Active public health campaigns (e.g., "Be Clear on Cancer")



Infrastructure

Strengths

The UK has a well-distributed network of NHS cancer centers providing access to diagnostics (CT, PET-CT, MRI), surgery, radiotherapy, and systemic therapies across all nations.



Weakness

 Regional capacity strains exist in highdemand areas, leading to delayssome radiotherapy services report 4-6 week backlogs.

Opportunity Threats

 Investment through the NHS Long Term Plan includes expansion of community diagnostic hubs and faster access targets. Workforce shortages in radiology and oncology, and outdated equipment in some Trusts, affect timely diagnosis and treatment.



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

Moderate infrastructure, primarily in private settings or research institutions.

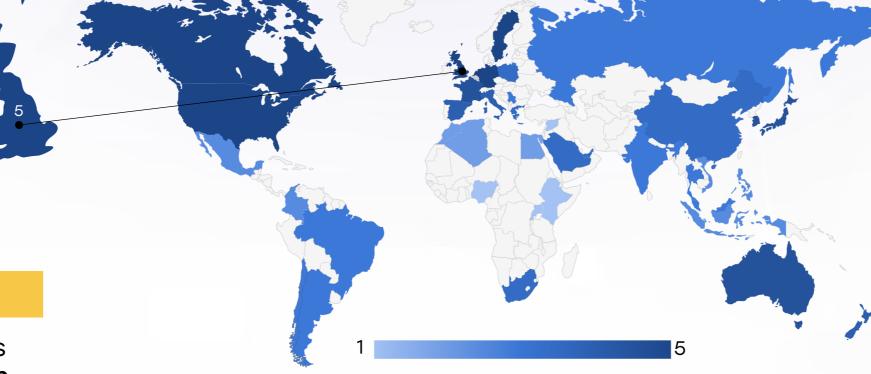
2. Limited infrastructure, available only in select centers or for high-cost private testing.

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

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



Strengths

 Access to targeted therapies, immunotherapy, and combination regimens is widespread and reimbursed via NICE recommendations.

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Weakness

 Newer therapies face time lags in NICE approval and NHS rollout, which can delay access by 6-12 months after EMA approval.



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.



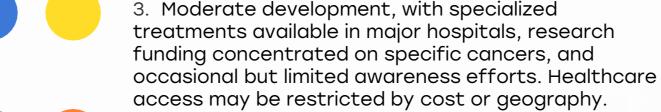
4. Well-developed system with good treatment availability, strong research funding, and effective but regionally focused awareness campaigns. Some disparities may exist in rural areas or between public and private sectors.



• The UK is a leader in lung cancer clinical trials (e.g., through Cancer Research UK, NCRI), with robust public funding-CRUK allocated £24 million to lung cancer in 2022.

Threats

 Post-Brexit regulatory divergence from EMA may affect drug approval timelines and research collaboration.





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	0	0	
Morocco		0	
Algeria	0		
Ethiopia			
India	0	0	0
Japan			
South Korea			
China	0		0
Thailand	0	<u> </u>	0
Singapore			
United Kingdom			
Germany			
France			
Netherlands			
Sweden			
Italy		0	
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Poland			
Mexico			<u> </u>
Brazil	<u> </u>		<u> </u>
Argentina	<u> </u>	\bigcirc	<u> </u>
Chile	<u> </u>	<u> </u>	<u> </u>
Colombia	<u> </u>		<u> </u>
United States			
Canada			
Australia		0	
Zealand	0	0	0
Greece	0	<u> </u>	
Rwanda			
Uganda			
Serbia	0	0	0
Saudi Arabia	0	0	0
UAE	0	0	0
Syria			
Indonesia	0	0	0
Vietnam	0	0	0
Philippines - ·	0		<u> </u>
Russia	0	0	0
Malaysia			



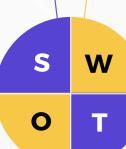
Survival Rates, Early **Detection** and Palliative Care



• The UK 5-year lung cancer survival rate has improved to 19.3% (ONS, 2023), with over 30% diagnosed at early stages in areas with screening pilots.

Opportunity

pilot areas.



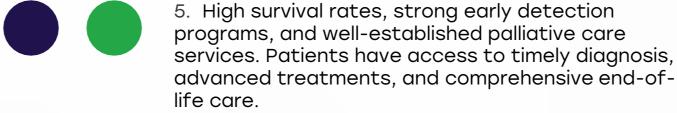
Weakness

 National early diagnosis rate is still suboptimal, with 40-50% of cases

Threats

 Socioeconomic The Targeted Lung disparities in Health Checks (TLHC) program offers LDCT screening uptake and screening for high-risk delayed referrals still adults (ages 55-74 with lead to poor outcomes in deprived smoking history) and showed 14% increase in populations. early-stage diagnosis in

diagnosed at stage III or IV.



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



Utilization of Biomarkers

Strengths

 Biomarker testing for EGFR, ALK, ROS1, BRAF, RET, PD-L1, and NTRK is integrated into NHS diagnostic pathways, guided by NICE and NHS Genomic Laboratory Hubs (GLHs).



Weakness

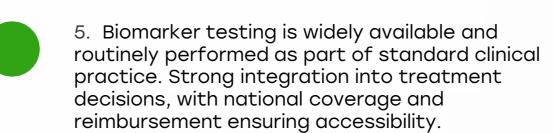
Turnaround times vary across trusts, with some exceeding
21 days, delaying treatment initiation.

Opportunity

 Nationwide roll-out of next-generation sequencing (NGS) and centralized GLHs supports equity in molecular diagnostics.

Threats

 Workforce shortages and inconsistent local practices limit uniformity in biomarker testing, especially in non-specialist hospitals.

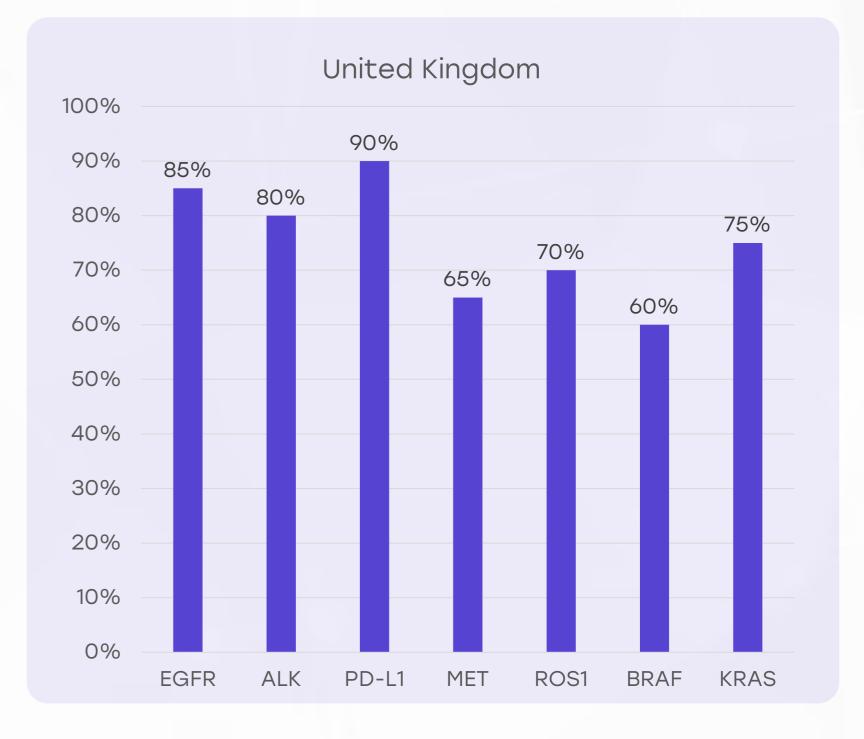


4. Biomarker testing is commonly used, but access may be limited in certain regions or patient groups. Some disparities exist in coverage or affordability, but it is still a crucial part of cancer diagnostics

 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.





Clinical Guidelines

Strengths

NICE provides
 comprehensive and
 regularly updated
 lung cancer
 guidelines aligned
 with global evidence,
 including biomarker driven therapies and
 care pathways.

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Weakness

 Variation in local implementation exists; some Trusts report deviations due to capacity or formulary limits.

Opportunity

 Integration of Real-World Evidence (RWE) and adaptive guidelines through NHS England can further refine care pathways.

Threats

Health system
 fragmentation post devolution can lead to
 inconsistent practices
 between England,
 Scotland, Wales, and
 Northern Ireland.



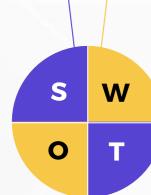
	Very High	High	Medium	Low	Very Low
Clinical Guideline Implementation	0	*	*	*	*
Feasibility of Integration	0	*	*	*	*
Adoption of International Guidelines	0	*	*	*	*
Engagement with Updates	*	0	*	*	*
ESMO Guidelines Implementation	0	*	*	*	*



Reimbursement



 NHS provides universal, free-atpoint-of-care reimbursement for lung cancer diagnostics and treatment across the UK.



Weakness

 NICE health technology appraisals are rigorous and may delay access to some therapies not deemed costeffective.

Opportunity

 The Cancer Drugs Fund (CDF) provides fasttrack access to promising treatments while further evidence is generated.

Threats

 Budget constraints and high treatment costs may impact sustainable access to emerging therapies in future years.



- 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.

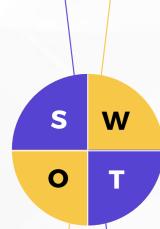
Country	Reimbursement Framework	No-cost Access
United States		0
United Kingdom		
Canada		
Australia		
Germany		
France		
Netherlands		
Sweden		
Italy		
Spain	0	
Poland	0	
Japan		
South Korea		
China		
India	0	
Singapore		
Thailand		
South Africa	0	
Kenya	0	
Nigeria	0	0
Egypt	0	0
Morocco	0	
Algeria	0	0
Ethiopia	0	0
Mexico		
Brazil		
Argentina		
Chile		
Colombia	0	0
New Zealand		
Greece		
Rwanda	0	0
Uganda	0	0
Serbia		
Saudi Arabia		
UAE		
Syria		0
Indonesia		
Vietnam		
Philippines		
Russia		
Malaysia		



Lung Cancer Screening

Strengths

 Uganda's community health worker system (VHTs) could be mobilized for lung health awareness and symptombased screening.



Weakness

 No LDCT screening exists; even chest Xray access is limited at the primary care level. Screening is reactive, not proactive.

Opportunity

 Integration with TB control programs could allow co-screening for chronic cough and identify at-risk individuals.

Threats

 Focus on infectious diseases like TB and HIV reduces attention and funding for lung cancer screening in national health priorities.

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