



## 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: ~19,800 new cases annually (2nd most common cancer in the Philippines)
- Incidence rate: 28.5 per 100,000 population per year
- Daily diagnoses (2024 est.): Around 54 new cases per day
- Lung cancer deaths: ~17,000 annually (leading cause of cancer-related death overall)
- 5-year survival rate: ~10-12% overall
- Localized: ~40%
- Regional spread: ~15%
- Distant (metastatic): ~3-5%
- Most affected age group: 55-74 years
- Smoking prevalence (adults): ~19% (higher in men)
- Early detection rate: <10% diagnosed at early stages
- Screening participation: No national lung cancer screening program

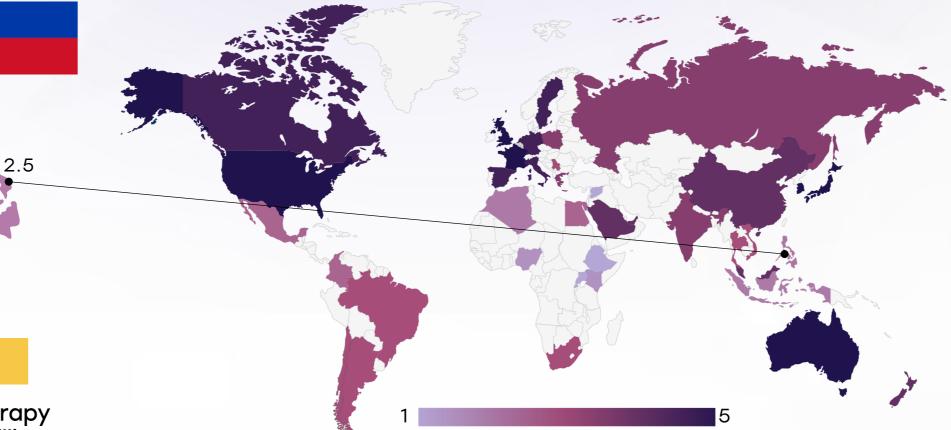


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Infrastructure



#### Strengths

- Specialized institutions like the Lung Center of the Philippines offer surgery, chemotherapy, and radiotherapy under one roof.
- 25+ cancer centers nationwide, with ~12 having some form of radiotherapy.

#### Opportunity

- NICCA earmarks infrastructure support to regional cancer centers and DOH hospitals.
- Mobile diagnostic units and satellite centers could expand rural reach.

#### Weakness

- Only 1 radiation therapy machine per ~1.5 million people; majority clustered in NCR.
- PET-CT scanners limited to 4-5 urban hospitals, mostly private.
- Lack of cold chain and handling capacity in provincial labs for biopsy/genetic samples.

- Risk of equipment obsolescence due to poor maintenance or delays in procurement.
- Logistics barriers across archipelagic regions limit equipment delivery and usage.

<ol> <li>Advanced nationwide infrastructure, widespread availability in public and private sectors, integration with clinical practice.</li> </ol>
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- 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.

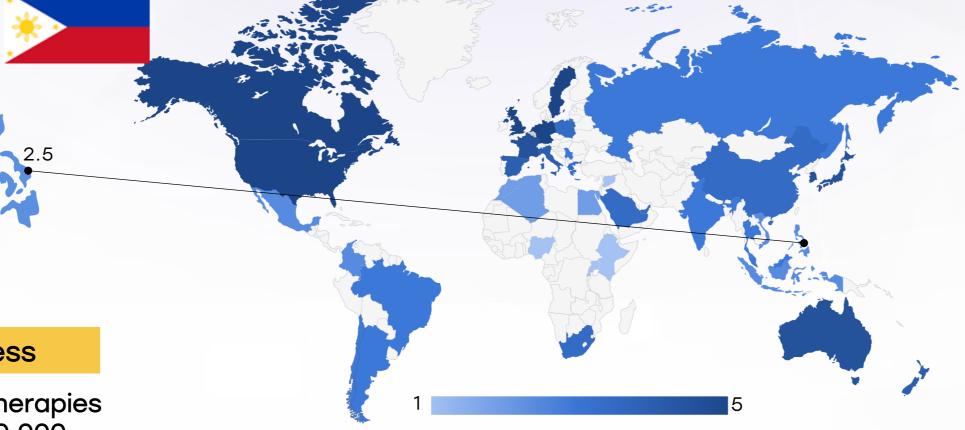
Country	Specialized Centers	Genetic & Molecular Testing Infrastructure
South Africa	0	<u> </u>
Kenya		
Nigeria		
Egypt		
Morocco		
Algeria		
Ethiopia		
India	<u> </u>	0
Japan		
South Korea		
China		0
Thailand		<u> </u>
Singapore		
United Kingdom		
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France		
Netherlands		
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Brazil	<u> </u>	
Argentina	<u> </u>	
Chile	0	0
Colombia		
United States		
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Treatment Access, Research Funding and Awareness Campaigns



#### Strengths

- Chemotherapy accessible in over 40% of public hospitals with cancer care services.
- Local patient groups and health NGOs run limited awareness campaigns in urban areas.

#### Opportunity

- Inclusion of drugs like osimertinib or pembrolizumab in essential medicines list.
- Corporate sector (e.g., mining, BPOs) can co-fund lung cancer campaigns through CSR.

- Weakness
- Targeted therapies cost PHP 80,000-150,000/month; only ~5-10% of patients can afford these.
- Lung cancer receives less than 5% of total cancerrelated public funding.

- Out-of-pocket cancer care spending remains >50% for many families.
- Rising cost of innovative therapies and diagnostic reagents strains public budgets.

- 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.

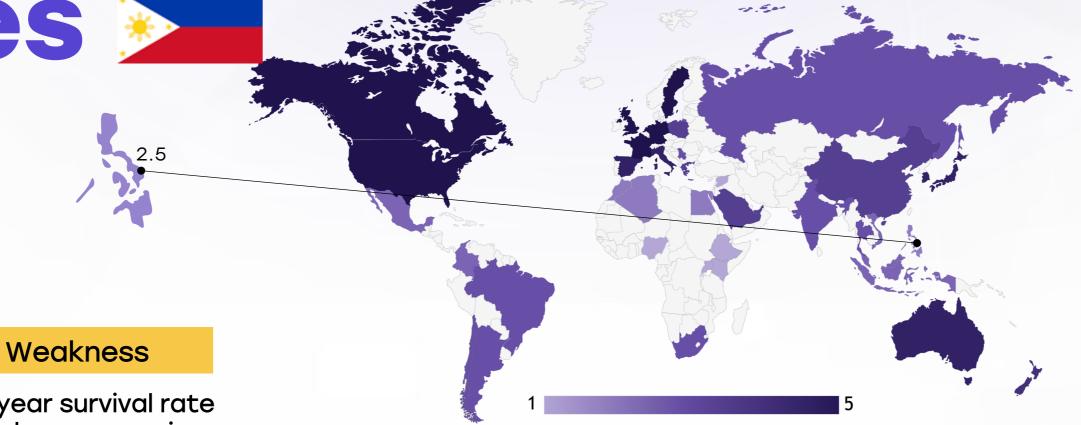
Country	Treatment Access	Research Funding	Awareness Campaigns
South Africa	<u> </u>		
Kenya			
Nigeria			
Egypt			
Morocco			
Algeria			
Ethiopia			
India	<u> </u>		
Japan			
South Korea			
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Thailand	0		
Singapore			
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Sweden			
Italy			
Spain			
Poland	0	<u> </u>	0
Mexico	0		<u> </u>
Brazil	0	<u> </u>	<u> </u>
Argentina	0		<u> </u>
Chile	0		<u> </u>
Colombia	0		<u> </u>
United States			
Canada			
Australia			
New Zealand	0		
Greece			
Rwanda			
Uganda			
Serbia	0	<u> </u>	<u> </u>
Saudi Arabia	0	<u> </u>	
UAE	0	<u> </u>	0
Syria			
Indonesia	<u> </u>		0
Vietnam	<u> </u>		0
Philippines			0
Russia	0	<u> </u>	0
Malaysia			0



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



#### Strengths

- Tertiary hospitals have multidisciplinary palliative units offering pain relief and psychooncology.
- Some hospices collaborate with DOH to deliver morphine and end-of-life care.

#### Opportunity

- Incorporate early symptom training in primary care curriculums.
- Scale-up of homebased palliative care programs, especially in elderly populations.

- 5-year survival rate for lung cancer is ~10-15%, with <12% diagnosed in Stage I or II.
- Lack of structured community referral systems and trained palliative staff in rural areas.

- Delayed presentation due to cultural norms and fear of diagnosis.
- High symptom burden in advanced cases increases hospital strain and patient distress.

- 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.
    - 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		0	
Morocco			
Algeria			
Ethiopia			
India	$\bigcirc$		
Japan		0	
South Korea		0	
China	<u> </u>	<u> </u>	
Thailand	<u> </u>	0	$\bigcirc$
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Italy		0	
Spain			
Poland	<u> </u>	<u> </u>	
Mexico	<u> </u>	0	
Brazil	<u> </u>		
Argentina	<u> </u>		
Chile	<u> </u>	0	
Colombia	0	0	
United States			
Canada			
Australia		0	
New Zealand	0	0	0
Greece	<u> </u>	0	0
Rwanda	0		
Uganda			
Serbia	<u> </u>	0	<u> </u>
Saudi Arabia	0	0	0
UAE	0	0	0
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Utilization of Biomarkers

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#### Strengths

- EGFR and ALK testing available in NCR hospitals like St. Luke's, PGH, Lung Center.
- 35-50% of lung adenocarcinoma cases in Filipinos are EGFR-positive, allowing targeted therapy.

#### Opportunity

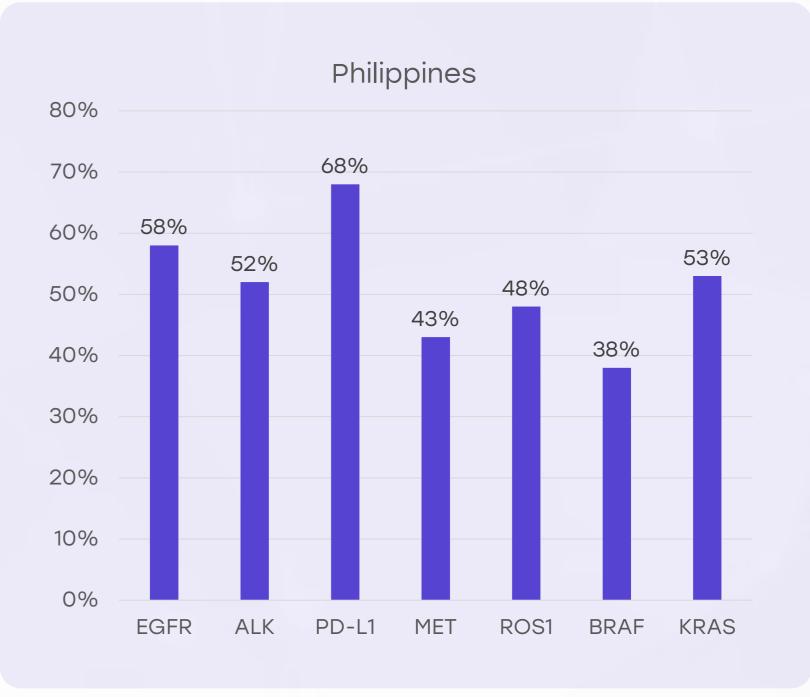
- Bulk procurement or local biomarker testing platforms could reduce costs.
- Training pathology teams in liquid biopsy and multiplex testing.

#### Weakness

- Turnaround time of 2-3 weeks for test results; worsens in provincial sample shipping.
- Costly tests (~PHP 30,000-60,000 per panel); mostly not reimbursed.

- Patients may skip testing due to cost or time, leading to inappropriate first-line treatment.
- Fragmentation between testing labs and oncology clinics reduces utility.

- 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.





## Philippines Clinical Guidelines

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#### Strengths

- Philippine College of Chest Physicians and PSMO promote updated lung cancer protocols.
- Urban oncologists follow NCCNadapted practices.

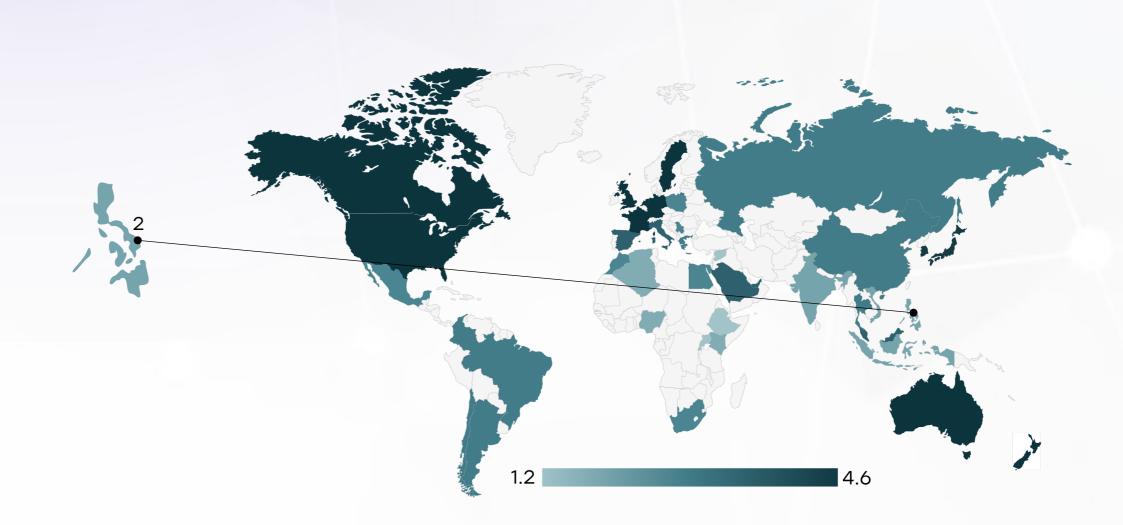
#### Opportunity

- Standardization via NICCA to mandate guideline-based management.
- Digital guideline tools (apps, EMR integration) for rural doctors.

#### Weakness

- No mandatory enforcement or monitoring of clinical guideline use in lower-tier hospitals.
- Limited penetration of guidelines at Level 1 and 2 public hospitals.

- Overwhelmed GPs may bypass guidelines in fastmoving outpatient settings.
- Guidelines may not be practical in resourceconstrained settings



	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	*



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Reimbursement

#### Strengths

- PhilHealth offers Z Benefits for earlystage cancer surgery and basic chemotherapy.
- Some hospitals offer **free** diagnostics under Malasakit Centers.

#### Opportunity

- Expand Z Benefits to include advanced diagnostics and oral therapies.
- Tie NICCA funding to new cost-effective reimbursement packages.

#### Weakness

- Reimbursement ceiling is significantly lower than real treatment cost, especially for stage III/IV.
- No reimbursement for molecular testing or immunotherapy.

- Annual PhilHealth budget constraints may limit benefit expansion.
- Delayed reimbursements discourage private hospital participation.



- 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	0	$\bigcirc$
Singapore		
Thailand	0	0
South Africa	0	0
Kenya	0	0
Nigeria	0	0
Egypt	0	0
Morocco	0	0
Algeria		
Ethiopia	0	0
Mexico	0	0
Brazil		
Argentina		
Chile		
Colombia		
New Zealand		
Greece		
Rwanda	0	0
Uganda	0	
Serbia		
Saudi Arabia		
UAE		
Syria	0	0
Indonesia		0
Vietnam		
Philippines	0	0
Russia		
Malaysia		



# Philippines Lung Cancer Screening

#### Strengths

- Pilot LDCT projects started at Lung Center targeting high-risk populations.
- Awareness among pulmonologists of LDCT importance growing.

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#### Weakness

- No national lung cancer screening program, unlike breast or cervical cancer.
- CT scans cost ~PHP 6,000-12,000, unaffordable for most.

#### Opportunity

- Establish risk-based LDCT protocols targeting male smokers aged 55-74.
- Include screening in occupational health programs (e.g., mining, industrial zones).

- Risk of false positives and overdiagnosis if program not properly structured.
- Infrastructure bottlenecks may delay scale-up if nationalized.

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