



Lung Cancer Factsheet: Insights & Key Developments

Key Insights on Lung Cancer Care
and Infrastructure

Core Pillars:

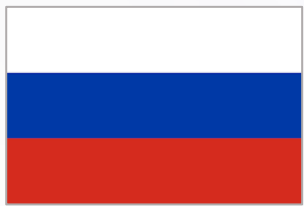
1. Infrastructure
2. Treatment Access, Research Funding and Awareness Campaigns
3. Survival Rates, Early Detection and Palliative Care
4. Utilization of Biomarkers
5. Clinical Guidelines
6. Reimbursement
7. Lung Cancer Screening

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.

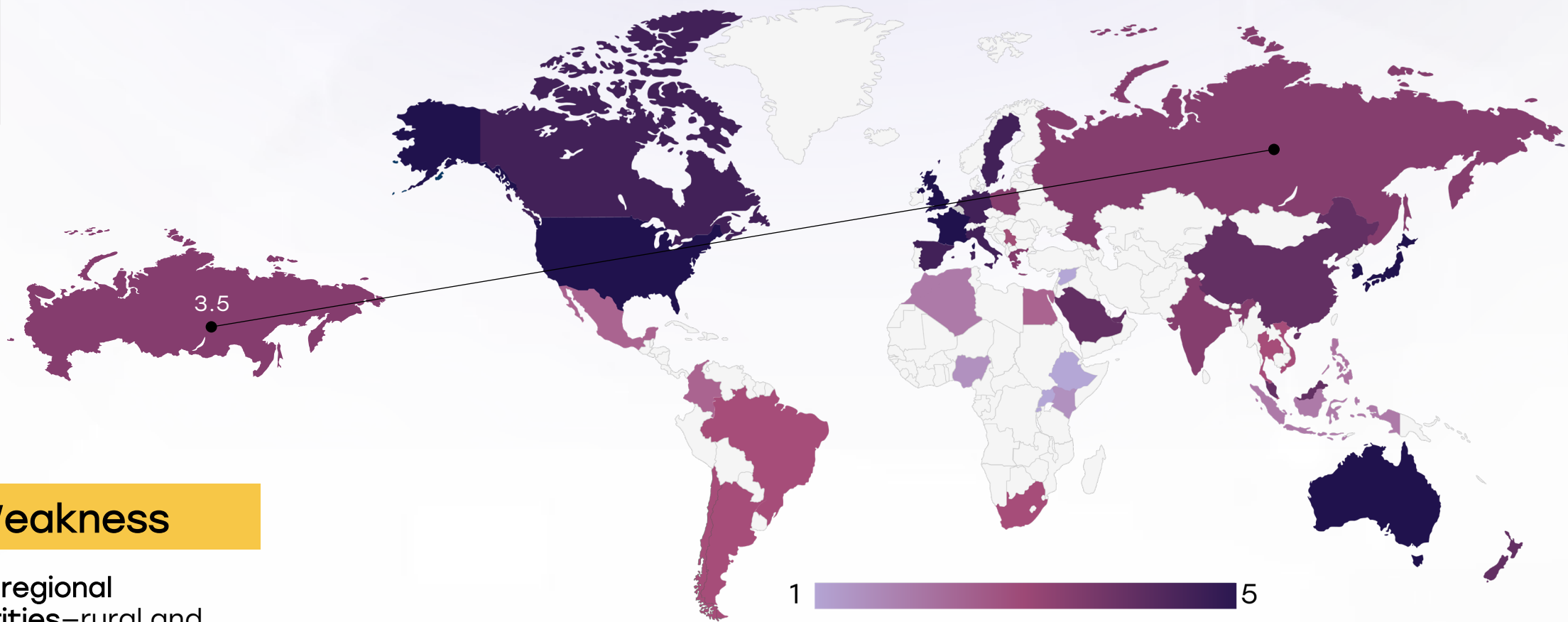
This factsheet provides a comprehensive overview of key pillars shaping lung cancer care, including specialized infrastructure, treatment accessibility, research funding, early detection, and palliative care.

- Incidence share: Among the top 3–4 cancers in men; leading cause of cancer-related death in men; less common but increasing among women
- Incidence rate:
 - Men: Approximately 52.4 per 100,000
 - Women: Significantly lower, but slowly rising
- Overall: Around 26.0 per 100,000 population per year
- Total new cases (2022): Approximately 70,360 cases
- Daily diagnoses: Around 193 new cases per day
- Deaths (2022): Approximately 51,900 deaths annually
- 5-year survival rate: Early-stage (I–IIIA) ~49.8%; overall survival remains low due to high rates of late-stage diagnosis
- Most affected age group: Primarily adults over 60 years; incidence among women has shown a gradual increase in recent years
- Screening participation: No nationwide lung cancer screening program; early detection improving due to increased CT scan usage, but most cases still identified at late stages

Russia



Infrastructure



Strengths

- Russia has a **strong cancer care infrastructure** in urban centers, including federal cancer research institutes (e.g., Blokhin Center in Moscow, N.N. Petrov Center in St. Petersburg).
- Availability of advanced diagnostic technologies: PET-CT, bronchoscopy, thoracic surgery, SRS/SBRT in major hospitals.
- Government investment through the **National Cancer Program (2019–2024)**.

Weakness

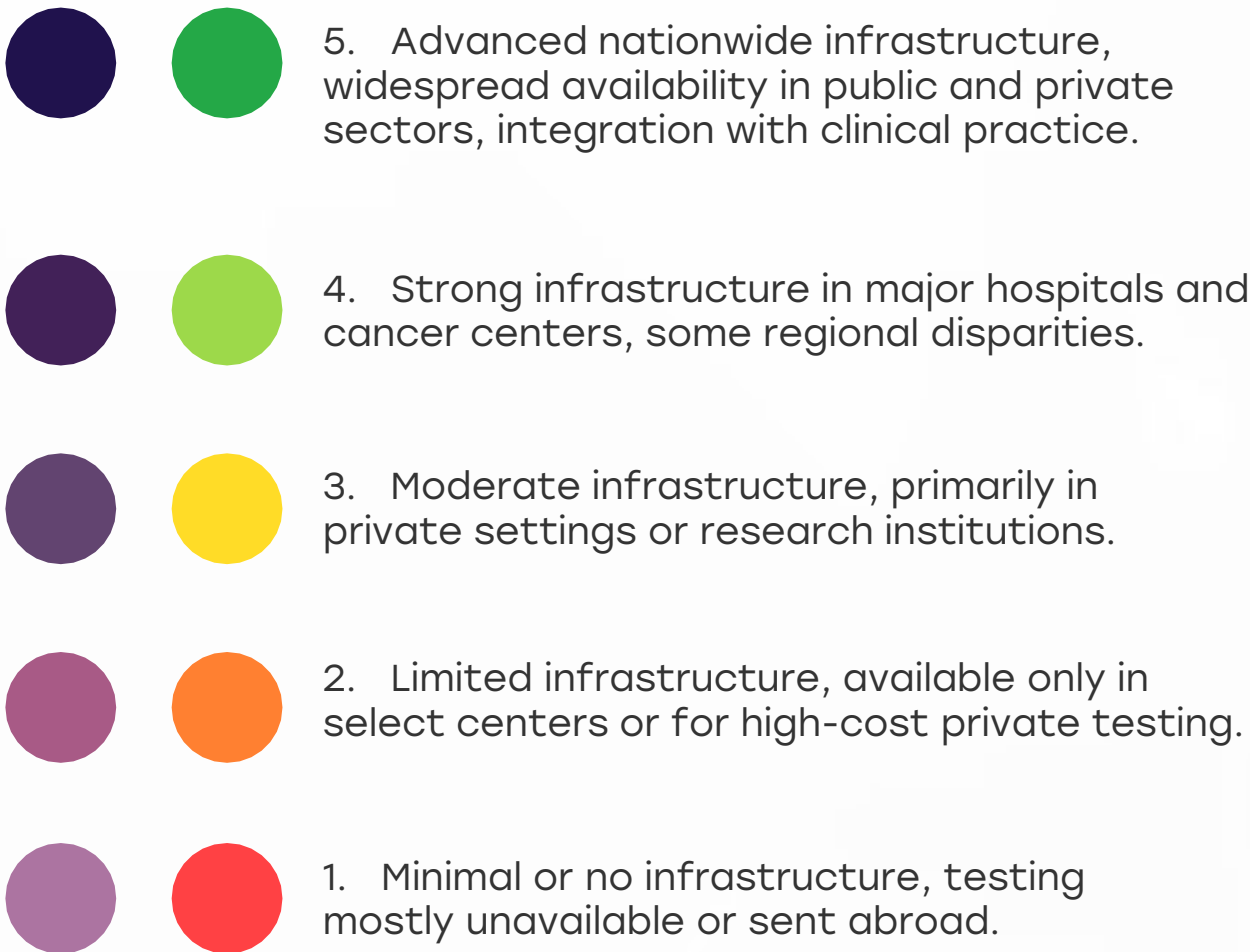
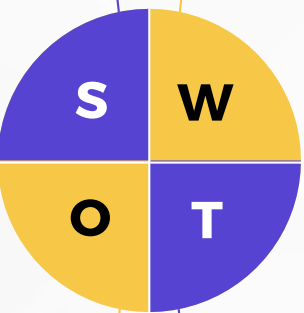
- **Large regional disparities**—rural and eastern regions lack access to comprehensive oncology services.
- Shortages in **trained oncologists and radiologists** outside large cities.

Opportunity

- Expand **satellite cancer clinics** and equip regional hospitals with modular diagnostic units.
- Develop **national tele-oncology platforms** to bridge remote gaps.

Threats

- Ongoing **economic sanctions** and trade restrictions may impact **medical equipment imports**.
- **Aging infrastructure** in non-reformed regional hospitals.

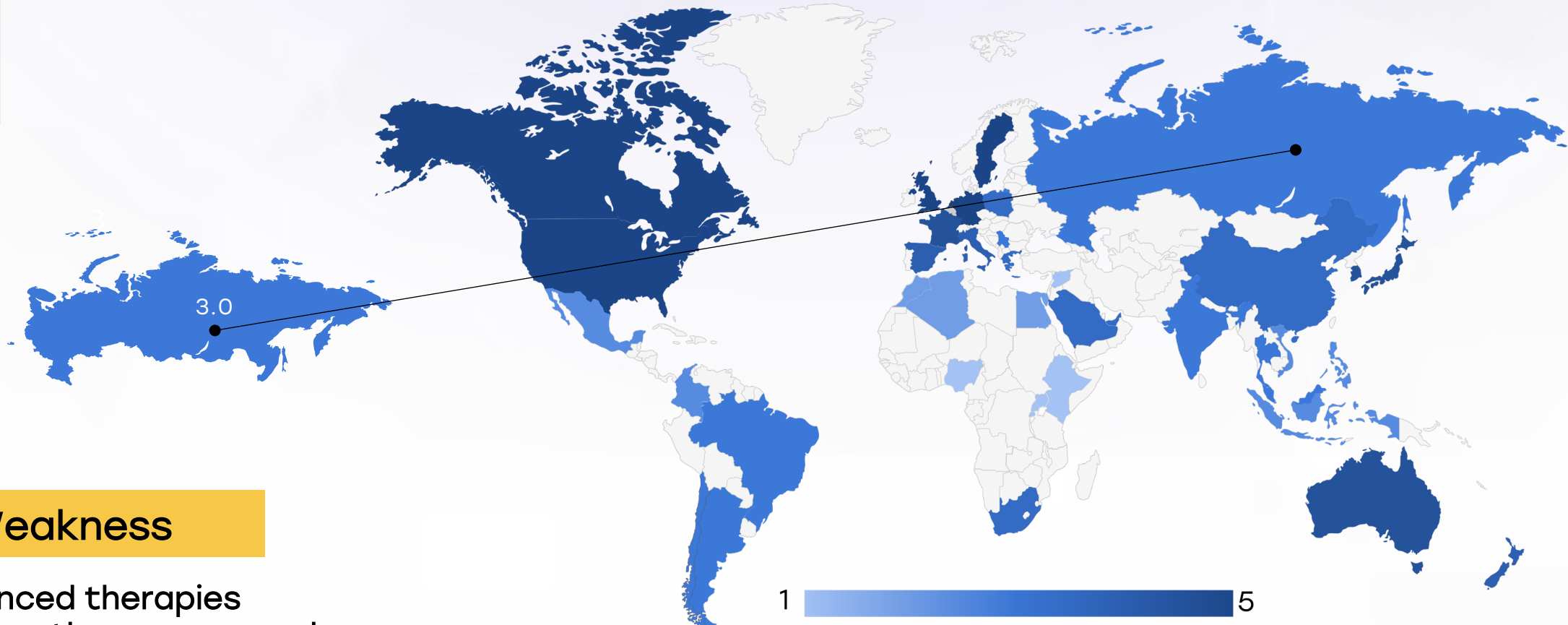


Country	Specialized Centers	Genetic & Molecular Testing Infrastructure
South Africa		
Kenya		
Nigeria		
Egypt		
Morocco		
Algeria		
Ethiopia		
India		
Japan		
South Korea		
China		
Thailand		
Singapore		
United Kingdom		
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Indonesia		
Vietnam		
Philippines		
Russia		
Malaysia		

Russia



Treatment Access, Research Funding and Awareness Campaigns



Strengths

- Lung cancer is prioritized under the **Federal Cancer Control Program**, with government-supported access to **chemotherapy, radiotherapy, and some targeted therapies**.
- Public awareness campaigns on **smoking cessation and lung cancer warning signs** run by **Ministry of Health and Russian Oncology Society**.

Opportunity

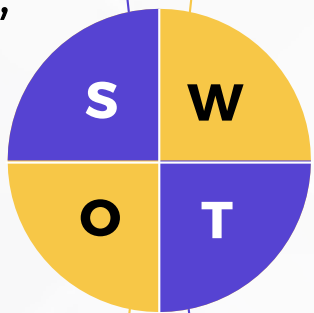
- Expand **early-phase clinical trials** via regional cancer centers.
- Strengthen collaboration with domestic pharma for **biologic production** and reduce import dependency.

Weakness

- **Advanced therapies (immunotherapy, second-line targeted agents)** remain limited to urban tertiary centers.
- Disparities in **clinical trial participation**, with underrepresentation of rural patients.

Threats

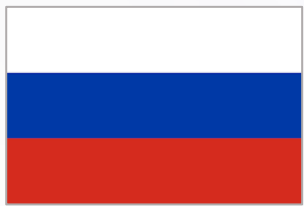
- Political tension may limit **international research partnerships** and access to innovations.
- **Public mistrust in state healthcare** may reduce participation in screening and trials.



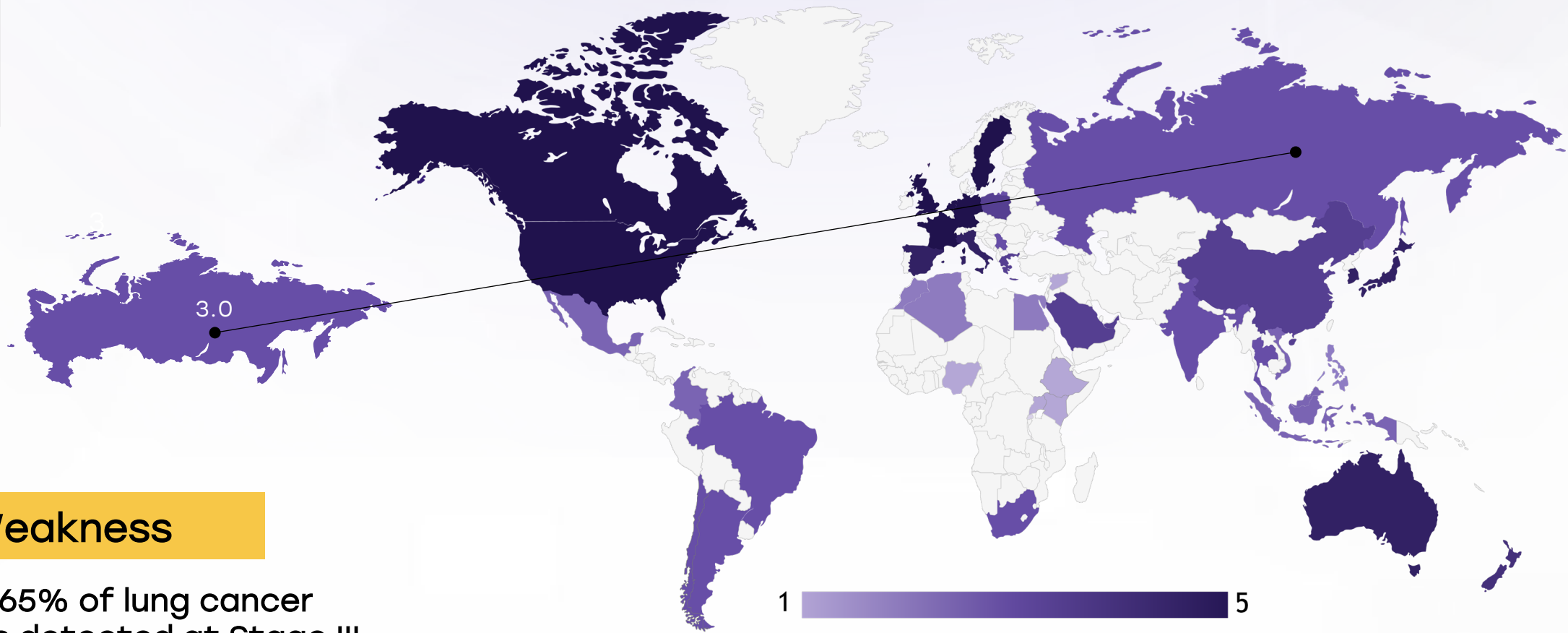
- 5. Strong healthcare infrastructure with comprehensive treatment access, high research funding, and nationwide awareness campaigns. Patients have access to advanced therapies, clinical trials, and widespread early detection programs.
- 4. Well-developed system with good treatment availability, strong 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
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Malaysia	<div></div>	<div></div>	<div></div>

Russia



Survival Rates, Early Detection and Palliative Care



Strengths

- Early-stage patients treated in leading centers show **5-year survival of 50–60%**.
- Palliative care integration progressing, with **pain relief clinics and home-based services** expanding.
- Some regions initiated **LDCT pilot screening** for high-risk smokers.

Weakness

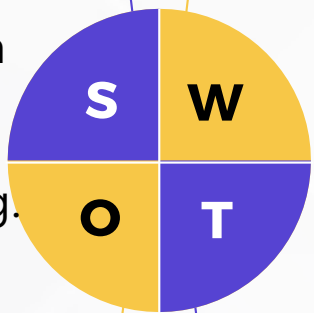
- **Over 65% of lung cancer cases detected at Stage III or IV**, especially in remote oblasts.
- **Limited symptom awareness** leads to diagnostic delays.
- Rural regions still lack **standardized palliative care pathways**.

Opportunity

- Nationwide rollout of **low-dose CT screening** through polyclinics and workplace programs.
- Train **primary care physicians** in early triage of respiratory symptoms.

Threats

- Lack of compliance with follow-up screening may reduce long-term impact.
- Inconsistencies in palliative care funding across oblasts.



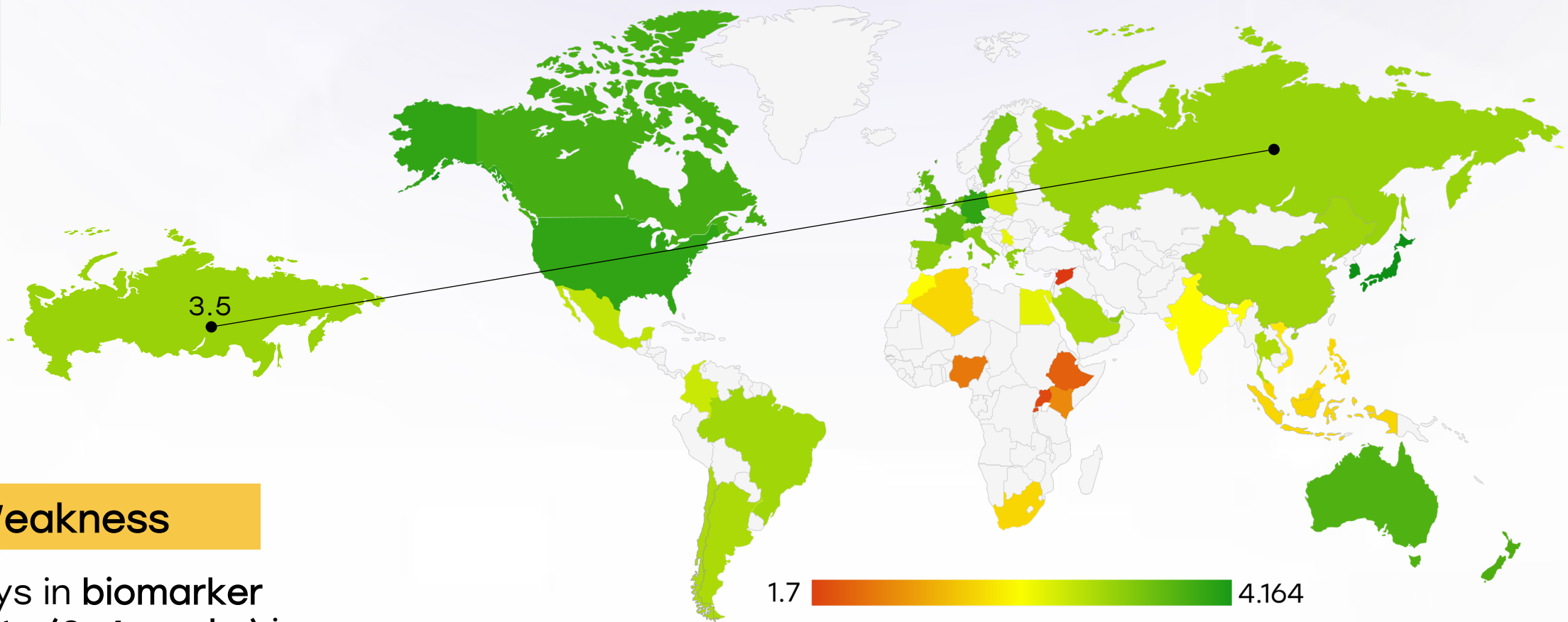
- 5. High survival rates, strong early detection programs, and well-established palliative care services. Patients have access to timely diagnosis, advanced treatments, and comprehensive end-of-life care.
- 4. Good survival rates, effective early detection efforts, and accessible but regionally limited 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
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Kenya	<div></div>	<div></div>	<div></div>
Nigeria	<div></div>	<div></div>	<div></div>
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Malaysia	<div></div>	<div></div>	<div></div>

Russia



Utilization of Biomarkers



Strengths

- EGFR, ALK, and ROS1 mutation testing available in most oncology centers; some centers offer PD-L1 and NGS panels.
- Molecular diagnostics supported by national guidelines.

Weakness

- Delays in biomarker results (2–4 weeks) in many regional centers.
- Limited testing outside of tier-1 cancer institutes.

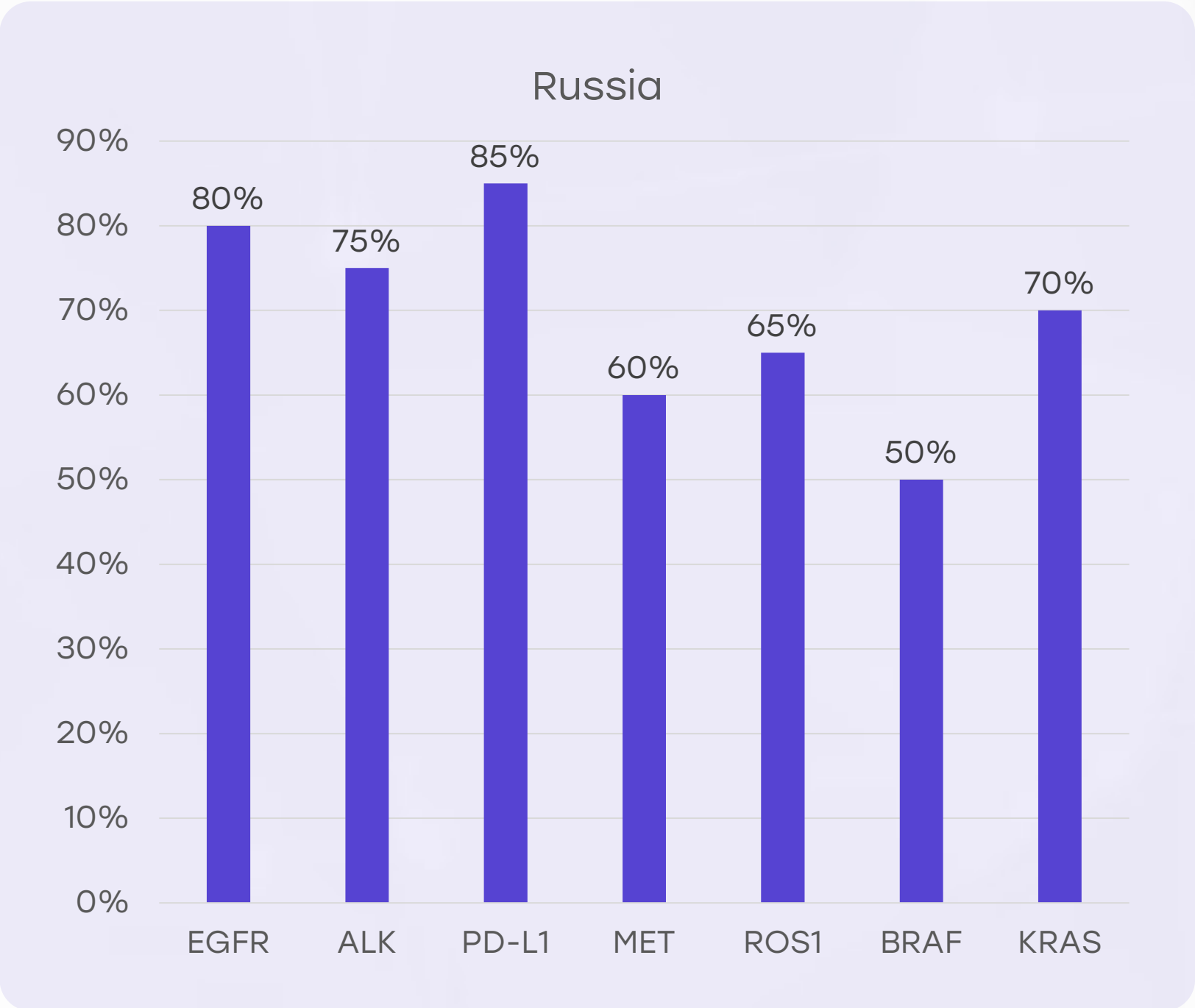
Opportunity

- Establish regional molecular hubs with **centralized logistics and standardization**.
- Promote **real-time testing and result sharing** through national cancer registry.

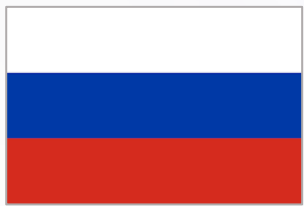
Threats

- Economic constraints may slow **reagent supply and equipment maintenance**.
- Inconsistent insurance coverage for full genomic panels.

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.



Russia



Clinical Guidelines

Strengths

- National guidelines aligned with ESMO/NCCN, updated regularly by the Russian Society of Clinical Oncology (RUSSCO).
- Multidisciplinary tumor boards standard in tertiary hospitals.

Weakness

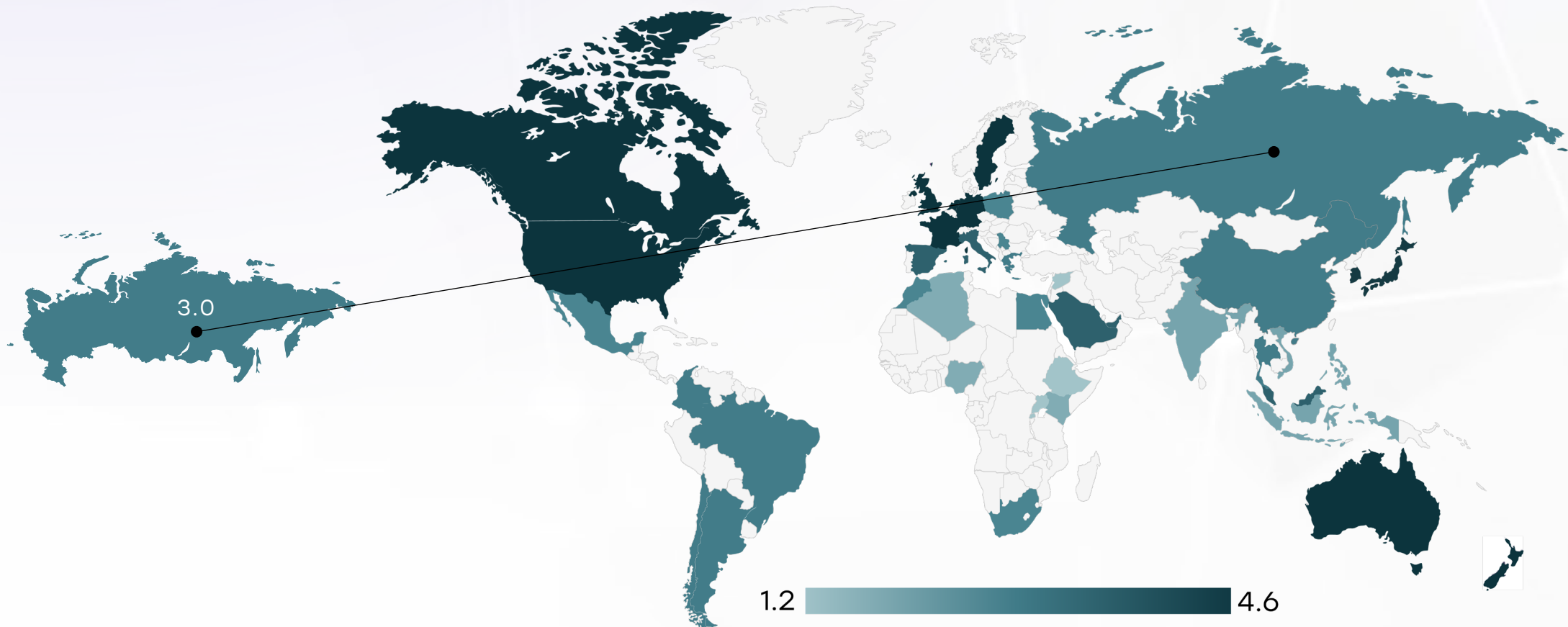
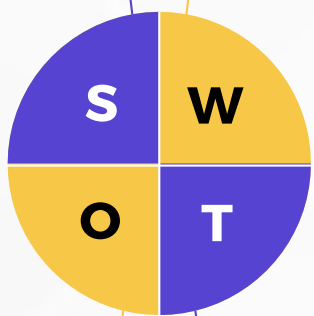
- Variability in implementation across regional centers.
- Primary care providers often unaware of updated pathways for early diagnosis and referral.

Opportunity

- Strengthen continuing education (CME) for generalists and pulmonologists.
- Embed guideline algorithms into electronic health record systems.

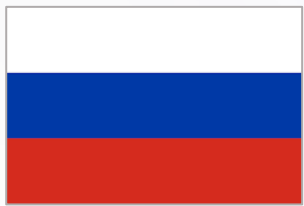
Threats

- Regional budget cuts may hinder uniform application of guideline-based care.
- Lack of audit mechanisms to track guideline adherence.



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

Russia



Reimbursement



Strengths

- Lung cancer treatment is covered under the **Compulsory Medical Insurance Fund (OMS)** for Russian citizens.
- Basic chemotherapy and radiation widely reimbursed; some targeted therapies included in state formularies.

Weakness

- Advanced treatments like **osimertinib, durvalumab, or NGS testing** often face authorization hurdles or cost-sharing.
- **Out-of-pocket burden** exists for diagnostic imaging and newer biologics in lower-income groups.

Opportunity

- Expand **public coverage for second-line and immunotherapies**.
- Develop **tiered co-payment models** based on income or region.

Threats

- Budget pressures under economic sanctions may limit drug imports and innovation adoption.
- Drug shortages and procurement delays risk care disruption.



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		
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Colombia		
New Zealand		
Greece		
Rwanda		
Uganda		
Serbia		
Saudi Arabia		
UAE		
Syria		
Indonesia		
Vietnam		
Philippines		
Russia		
Malaysia		

Russia



Lung Cancer Screening

Strengths

- LDCT screening pilots initiated in several oblasts as part of **National Cancer Program** for **smokers over 55**.
- Strong primary care networks allow potential for **scalable screening coverage**.

Weakness

- LDCT screening not yet **systematically available nationwide**.
- Participation among **high-risk populations** (e.g., older males in rural Russia) remains low.

Opportunity

- Expand LDCT via occupational health programs (e.g., **mining, manufacturing**).
- Digital tracking and **SMS-based screening reminders** for high-risk groups.

Threats

- Limited funding and low radiologist capacity may **delay scale-up**.
- Regional disparities may increase inequalities in early detection.

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