International Cancer Patient Coalition

Serbia

Breast Cancer Factsheet: Insights & Key Developments

Key Insights on Breast 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. Breast Cancer Screening

Breast 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 breast cancer care, including specialized infrastructure, treatment accessibility, research funding, early detection, and palliative care.

- Annual Diagnoses: Approximately 6,724 new cases were reported in 2020, accounting for 13.7% of all tumor cases in the country.
- Annual Mortality: In 2020, there were 2,342 deaths due to breast cancer, representing 8.3% of all tumor-related deaths in Serbia.
- Incidence Rate: The standardized incidence rate was 75.3 per 100,000 women in 2018.
- Mortality Rate: Serbia has one of the highest standardized mortality rates in Europe, with 23.9 deaths per 100,000 women.
- Most Affected Age Group: The majority of breast cancer cases occur in women aged 50 years and older.
- Screening Participation: The organized mammography screening program aims to cover at least 75% of women aged 50 to 69 years, with a screening cycle every two years. However, as of the latest data, only 16% of the target population has been covered.
- Disability-Adjusted Life Years (DALYs): In 2019, Serbia had the highest DALYs rate for breast cancer in the region, reaching 670.84 per 100,000 population.

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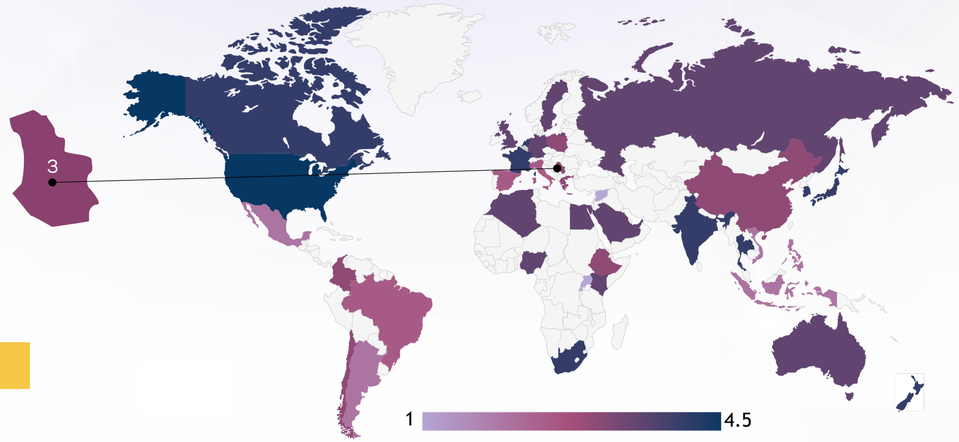
Infrastructure



Strengths

- Major oncology centers like IORS in Belgrade and the Oncology Institutes in Novi Sad and Niš provide specialized care and clinical trials.
- HER2, ER, PR, and BRCA testing are available in tertiary centers; private labs and EU partnerships help fill infrastructure gaps.

Weakness

- Rural regions face limited access to oncology specialists and advanced diagnostics.
- Genetic and molecular testing infrastructure is underdeveloped, with low BRCA testing uptake (~30% of eligible patients).

S W O T

Opportunity

- Expand molecular diagnostics through national strategies and EU-funded modernization programs.
- Enhance regional coverage by strengthening diagnostic services in secondary hospitals.

Threats

- Workforce shortages and unequal distribution of resources threaten scalability.
- Delays and cost barriers for molecular tests may worsen health inequities.

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	2	2
Nigeria	2	2
Egypt	3	3
Morocco	2	2
Algeria	2	2
Ethiopia	1	1
India	3	3
Japan	4	4
South Korea	4	4
China	3	3
Thailand	3	3
Singapore	4	4
United Kingdom	4	4
Germany	5	5
France	4	4
Netherlands	5	5
Sweden	5	5
Italy	4	4
Spain	4	4
Poland	3	3
Mexico	2	2
Brazil	3	3
Argentina	3	3
Chile	3	3
Colombia	2	2
United States	5	5
Canada	5	5
Australia	4	4
New Zealand	4	4
Greece	3	3
Rwanda	1	1
Uganda	1	1
Serbia	3	3
Saudi Arabia	3	3
UAE	3	4
Syria	1	1
Indonesia	2	2
Vietnam	2	2
Philippines	2	2
Russia	4	3

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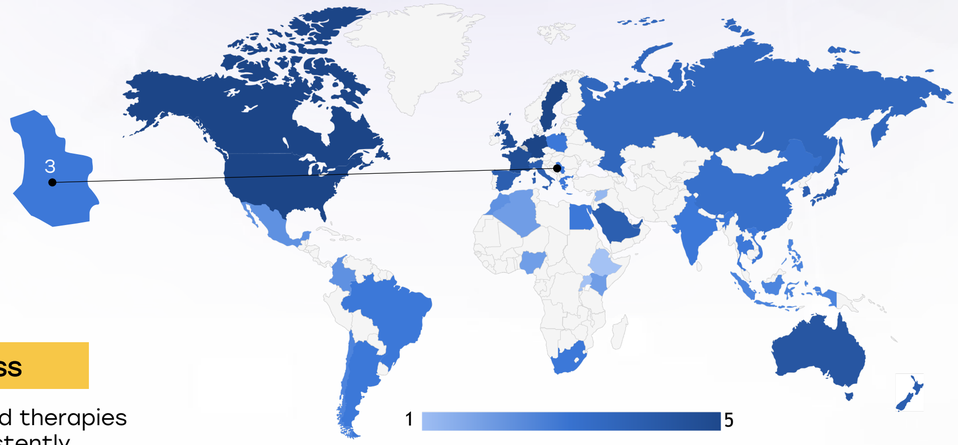
Treatment Access, Research Funding and Awareness Campaigns



Strengths

- Core treatments (surgery, chemotherapy, radiation) are available in both urban and regional centers.
- Serbia participates in Horizon Europe and INTERREG oncology collaborations, supporting knowledge transfer and innovation.

Weakness

- HER2-targeted therapies are not consistently accessible; access is delayed due to reimbursement and budget issues.
- Research funding remains limited; clinical trial participation is modest compared to Western Europe.

Opportunity

- Improve HER2 access through earlier regulatory alignment with EU HTA decisions.
- Expand awareness campaigns beyond “Pink October” to boost year-round screening engagement.

Threats

- Economic constraints may restrict the introduction of new HER2 agents.
- Low public awareness and weak rural outreach limit early detection and care access.

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	3
Kenya	2	2	2
Nigeria	2	2	2
Egypt	3	3	3
Morocco	2	2	3
Algeria	2	2	2
Ethiopia	1	1	1
India	3	3	3
Japan	4	4	4
South Korea	4	4	4
China	3	4	3
Thailand	3	3	3
Singapore	4	5	5
United Kingdom	4	5	5
Germany	5	5	5
France	4	5	5
Netherlands	5	5	5
Sweden	5	5	5
Italy	4	4	4
Spain	4	4	4
Poland	3	3	3
Mexico	2	2	3
Brazil	3	3	3
Argentina	3	3	3
Chile	2	3	3
Colombia	2	2	3
United States	5	5	5
Canada	5	5	5
Australia	4	4	5
New Zealand	4	4	4
Greece	3	3	3
Rwanda	1	1	1
Uganda	1	1	1
Serbia	3	3	3
Saudi Arabia	4	4	4
UAE	4	4	4
Syria	2	1	1
Indonesia	3	2	3
Vietnam	3	2	3
Philippines	3	2	3
Russia	4	4	3

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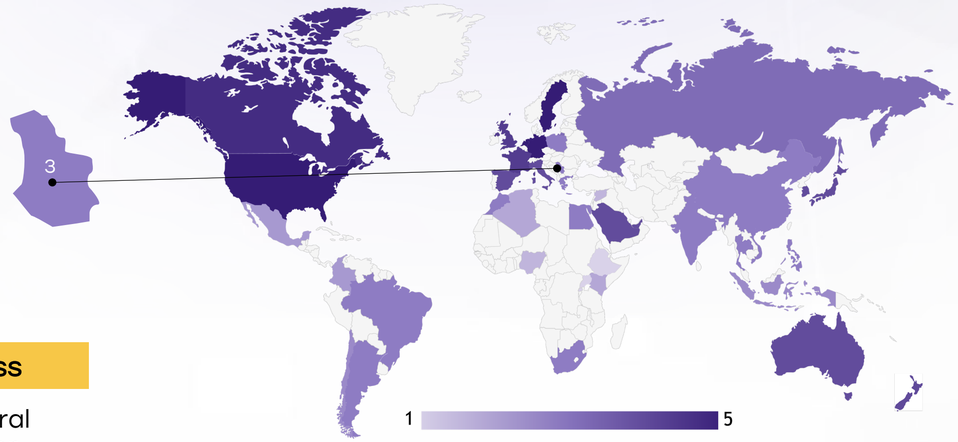
Survival Rates, Early Detection and Palliative Care



Strengths

- Five-year survival in cities approaches 78% due to better access to multidisciplinary care.
- Ongoing national initiatives aim to expand palliative and home-based care services.

Weakness

- Survival in rural areas is lower (~72%) due to late diagnosis and care delays.
- Only 30–35% of advanced cancer patients receive structured palliative care.

S W O T

Opportunity

- Improve national mammography program coverage through mobile units and rural outreach.
- Train more palliative care providers and scale home-care models to underserved regions.

Threats

- Persistent underfunding of palliative services could widen care gaps.
- Stage III/IV diagnoses account for >40% of new cases, limiting curative potential.

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	2	2	2
Nigeria	2	1	2
Egypt	3	3	3
Morocco	3	3	3
Algeria	2	2	2
Ethiopia	1	1	1
India	3	3	3
Japan	4	4	4
South Korea	4	4	4
China	3	3	3
Thailand	3	3	3
Singapore	4	5	4
United Kingdom	4	5	4
Germany	5	5	5
France	4	5	4
Netherlands	5	5	5
Sweden	5	5	5
Italy	4	4	4
Spain	4	4	4
Poland	3	3	3
Mexico	2	3	2
Brazil	3	3	3
Argentina	3	3	3
Chile	2	3	3
Colombia	2	3	2
United States	5	5	5
Canada	5	5	4
Australia	4	4	4
New Zealand	4	4	4
Greece	3	3	3
Rwanda	1	1	1
Uganda	1	1	1
Serbia	3	3	3
Saudi Arabia	4	4	4
UAE	4	4	4
Syria	2	2	1
Indonesia	3	3	2
Vietnam	3	3	2
Philippines	3	3	3
Russia	4	3	3

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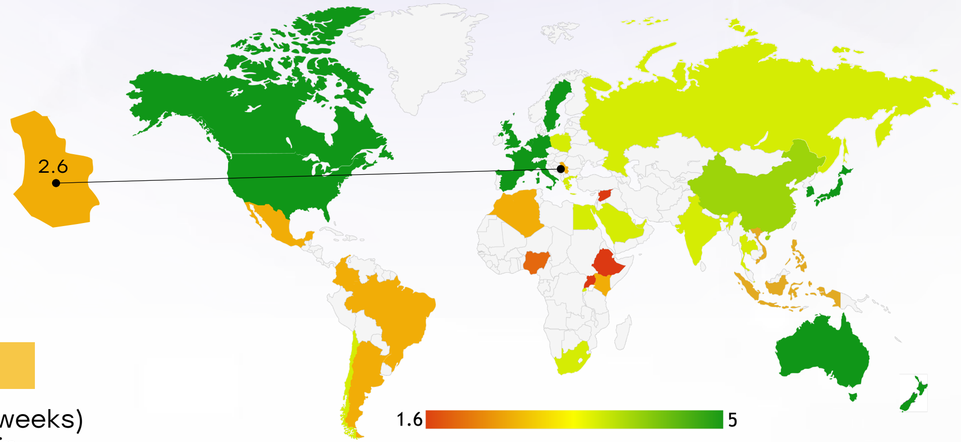
Utilization of Biomarkers



Strengths

- HER2, ER, and PR testing are performed in major cancer centers with ~70–75% coverage.
- Compliance with hormone receptor testing is relatively high (~80%) in large hospitals.

Weakness

- Long delays (>3 weeks) for HER2 results in smaller hospitals hinder timely treatment.
- BRCA testing coverage remains below 20%, with minimal access in rural areas.

S W O T

Opportunity

- Scale up IHC and genetic testing via national lab network upgrades.
- Leverage EU-funded projects to expand BRCA testing and genetic counseling.

Threats

- Inconsistent biomarker access may limit eligibility for targeted HER2 therapies.
- Financial and geographic barriers to testing may persist without national standardization.

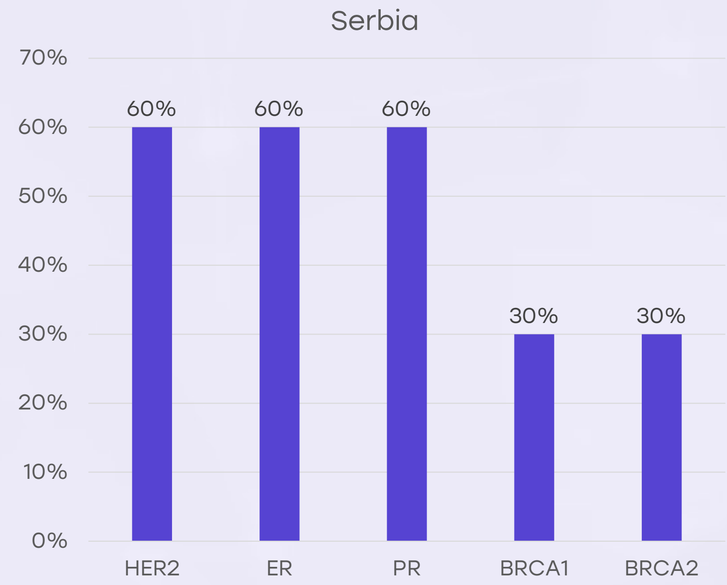
5. 80% Biomarker testing is widely available and routinely performed as part of standard clinical practice. Strong integration into treatment decisions, with national coverage and reimbursement ensuring accessibility.

4. 61-80%. 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. 41-60% 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. 20-40% 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. <20% 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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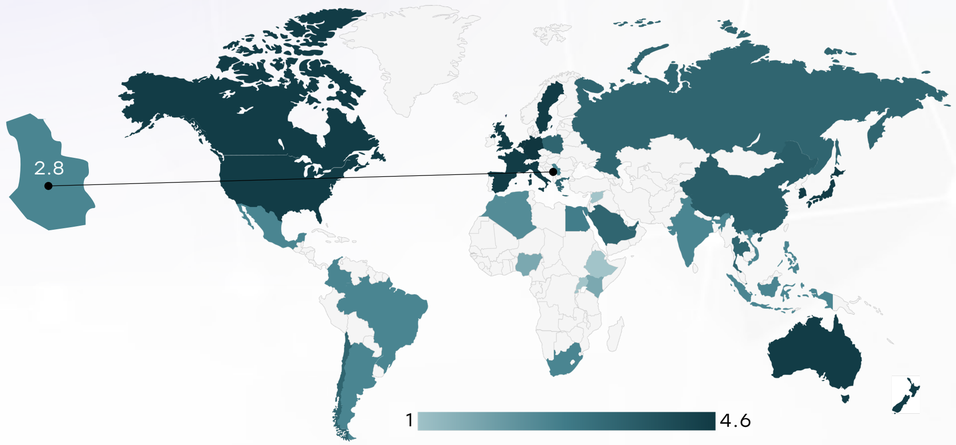
Clinical Guidelines



Strengths

- Major centers follow ESMO-aligned protocols for HER2-positive and early-stage breast cancer.
- Serbia is engaged in cross-border knowledge exchange and remote training pilots.

Weakness

- Only ~60% of oncology departments adhere to international standards.
- Smaller hospitals lack resources and CME access to regularly update treatment protocols.

S W O T

Opportunity

- Implement national digital platforms for guideline dissemination and training.
- Offer incentives for regional hospitals to adopt updated HER2-positive care pathways.

Threats

- Without institutional support, ESMO guideline integration may remain fragmented.
- Gaps in training and drug access may limit real-world application of best practices.

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

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Reimbursement

Strengths

- Chemotherapy and hormone therapy are covered for ~80% of patients via public insurance.
- National efforts are underway to expand reimbursement for precision oncology treatments.

Weakness

- Only 60–65% of eligible patients receive reimbursed HER2-targeted therapies.
- Advanced diagnostics like NGS and BRCA often require out-of-pocket payments.

S W O T

Opportunity

- Align reimbursement lists with EU oncology frameworks to expand HER2 therapy access.
- Introduce flexible co-pay models to reduce financial burden for newer therapies.

Threats

- Reimbursement gaps for targeted therapies risk delaying population-wide uptake.
- Rural patients face longer approval processes and inconsistent reimbursement access.

O Yes - 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.

○ Partial - 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 - No formal reimbursement system exists, meaning patients must fully cover the cost of biomarker testing out-of-pocket.

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

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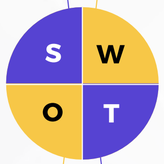
Breast Cancer Screening

Strengths

- National biennial mammography program targets women aged 50–69.
- Mobile mammography units help improve access in rural and underserved areas.

Weakness

- Screening participation is below 50%, far below the EU average of 70%.
- Infrastructure, funding, and awareness barriers persist outside major cities.



Opportunity

- Scale AI-assisted mammogram analysis and digital follow-up systems.
- Strengthen community-based campaigns and integrate screening with primary care.

Threats

- Low screening uptake leads to >40% of cancers diagnosed at Stage III or IV.
- Limited rural infrastructure hinders timely diagnostic and referral pathways.

Country	Breast Cancer Screening
United States	Biennial mammograms (50-74 years)
United Kingdom	Triennial mammograms (50-71 years)
Canada	Mammograms every 2-3 years (50-74 years)
Australia	Biennial mammograms (50-74 years)
Germany	Mammograms every 2 years (50-69 years)
France	Biennial mammograms (50-74 years)
Netherlands	Mammograms every 2 years (50-75 years)
Sweden	Mammograms every 18-24 months (40-74 years)
Italy	Mammograms every 2 years (50-69 years)
Spain	Mammograms every 2 years (50-69 years)
Poland	Mammograms every 2 years (50-69 years)
Japan	Mammograms every 2 years (40+ years)
South Korea	Biennial mammograms (40+ years)
China	Regional mammogram programs (40-69 years)
India	Opportunistic screening
Singapore	Biennial mammograms (50-69 years)
Saudi Arabia	Opportunistic screening; regional programs for women aged 40+
UAE	Opportunistic screening; encouraged every 2 years for 40-69 years
Syria	No national program; limited local initiatives due to conflict

Country	Breast Cancer Screening
Thailand	Biennial mammograms (50-69 years)
South Africa	Opportunistic screening
Kenya	No national program
Nigeria	No national program
Egypt	National awareness campaigns
Morocco	National program for 45-69 years
Algeria	Planned national program (50-69 years)
Ethiopia	No national program
Mexico	Biennial mammograms (40-69 years)
Brazil	Biennial mammograms (50-69 years)
Argentina	Biennial mammograms (50-69 years)
Chile	Mammograms every 3 years (50-69 years)
Colombia	Biennial mammograms (50-69 years)
New Zealand	Biennial mammograms (45-69 years)
Greece	Biennial mammograms (50-69 years)
Rwanda	No national program
Uganda	No national program
Serbia	Biennial mammograms (50-69 years)
Indonesia	Opportunistic screening; no national mammography program
Vietnam	Regional mammography programs; pilot programs in urban areas (age 45–69)
Philippines	Opportunistic screening; mammography recommended every 2 years for women 50+
Russia	National program for biennial mammograms (50–69 years)