



# 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.

- Breast cancer incidence: 16.5% of all female cancers
- Incidence rate: 16.2 per 100,000 women per year
- Total cases (2018-2022): Approximately 1,131 new cases annually
- Most affected age group: Highest incidence between ages 55-59 years



Infrastructure

### Strengths

- Butaro Cancer Center of Excellence serves as a national referral hub for oncology care.
- Partnerships with NGOs like Partners In Health aim to expand diagnostic capacity and workforce training.

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• Fewer than five pathologists per million people; molecular diagnostics (e.g. HER2, BRCA) are nearly nonexistent.

Weakness

• Biomarker tests are often sent abroad, with turnaround times exceeding 2-3 months and prohibitive costs.

### Opportunity

- Establish in-country molecular labs to reduce dependency on external facilities.
- Expand pathology training programs and invest in decentralized diagnostic infrastructure.

- Severe infrastructure gaps delay diagnosis and limit access to personalized treatment.
- · Financial barriers and rural-urban inequality risk further marginalizing underserved populations.

|  |  | 5. Advanced nationwide infrastructure, widespread availability in public and private sectors, integration with clinical practice. |
|--|--|---|
|--|--|---|

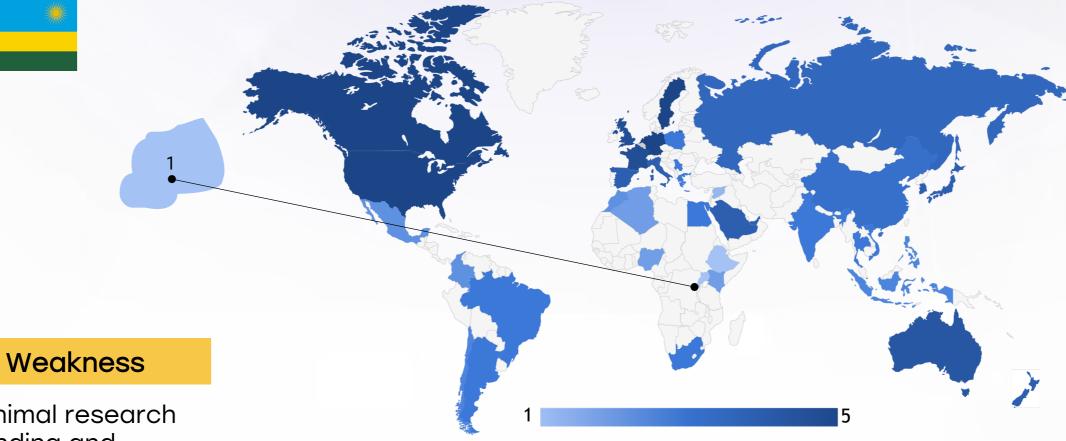
- 4. Strong infrastructure in major hospitals and cancer centers, some regional disparities.
- 3. Moderate infrastructure, primarily in private settings or research institutions.
- 2. Limited infrastructure, available only in select centers or for high-cost private testing.
- 1. Minimal or no infrastructure, testing mostly unavailable or sent abroad.

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



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Treatment Access, Research Funding and Awareness Campaigns



### Strengths

- Chemotherapy partially subsidized in public facilities; some NGO-led awareness efforts.
- Participation in international research collaborations (e.g., NCI, AORTIC).

### Opportunity

- Strengthen national programs through public-private partnerships.
- Expand early detection campaigns via schools, media, and community health workers.

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- Minimal research funding and treatment concentrated in a few cities.
- National awareness campaigns are underfunded and fragmented.

- High out-of-pocket costs force many patients to delay or forgo treatment.
- Awareness gaps contribute to persistent latestage diagnoses.

- 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<br>Access | Research<br>Funding | Awareness<br>Campaigns |
|----------------|---------------------|---------------------|------------------------|
| South Africa   | 0                   | $\bigcirc$          | <u> </u>               |
| Kenya          |                     |                     |                        |
| Nigeria        |                     |                     |                        |
| Egypt          | 0                   | $\bigcirc$          | <u> </u>               |
| Morocco        |                     |                     | 0                      |
| Algeria        |                     |                     |                        |
| Ethiopia       |                     |                     |                        |
| India          | <u> </u>            |                     |                        |
| Japan          |                     |                     |                        |
| South Korea    |                     |                     |                        |
| China          | <u> </u>            |                     |                        |
| Thailand       | <u> </u>            |                     | <u> </u>               |
| Singapore      | 0                   |                     |                        |
| United Kingdom | 0                   |                     |                        |
| Germany        |                     |                     |                        |
| France         | 0                   |                     |                        |
| Netherlands    |                     |                     |                        |
| Sweden         |                     |                     |                        |
| Italy          | 0                   |                     | 0                      |
| Spain          | 0                   |                     | 0                      |
| Poland         | 0                   | $\bigcirc$          | <u> </u>               |
| Mexico         |                     |                     | <u> </u>               |
| Brazil         | 0                   | $\bigcirc$          | <u> </u>               |
| Argentina      | 0                   | $\bigcirc$          | <u> </u>               |
| Chile          |                     | $\bigcirc$          | 0                      |
| Colombia       |                     |                     | 0                      |
| United States  |                     |                     |                        |
| Canada         |                     |                     |                        |
| Australia      |                     |                     |                        |
| New Zealand    |                     |                     |                        |
| Greece         | 0                   |                     | <u> </u>               |
| Rwanda         |                     |                     |                        |
| Uganda         |                     |                     |                        |
| Serbia         | 0                   | <u> </u>            |                        |
| Saudi Arabia   |                     |                     |                        |
| UAE            |                     | <u> </u>            |                        |
| Syria          |                     |                     |                        |
| Indonesia      | <u> </u>            |                     | <u> </u>               |
| Vietnam        |                     |                     | <u> </u>               |
| Philippines    |                     | <u> </u>            | 0                      |
| Russia         |                     |                     |                        |



Survival Rates, Early Detection and Palliative Care

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### Strengths

- Growing involvement of organizations like KENCANSA and NCCP in awareness.
- Palliative care available in key urban centers like Nairobi and Eldoret.

Opportunity

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### Weakness

- Over 70% of patients present at stage III or IV due to limited screening and awareness.
- Few facilities offer palliative care outside major cities.

- Mobile outreach and community-based palliative support could expand reach
- Improved training and resource allocation can support earlier diagnosis.

- Survival rates remain low due to late detection and limited palliative coverage.
- Rural populations lack access to pain management and supportive care.

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



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**Utilization of Biomarkers** 

### Strengths

- HER2, ER, and PR testing available in major urban hospitals.
- Policy recognition of molecular diagnostics in national cancer strategy.

### Opportunity

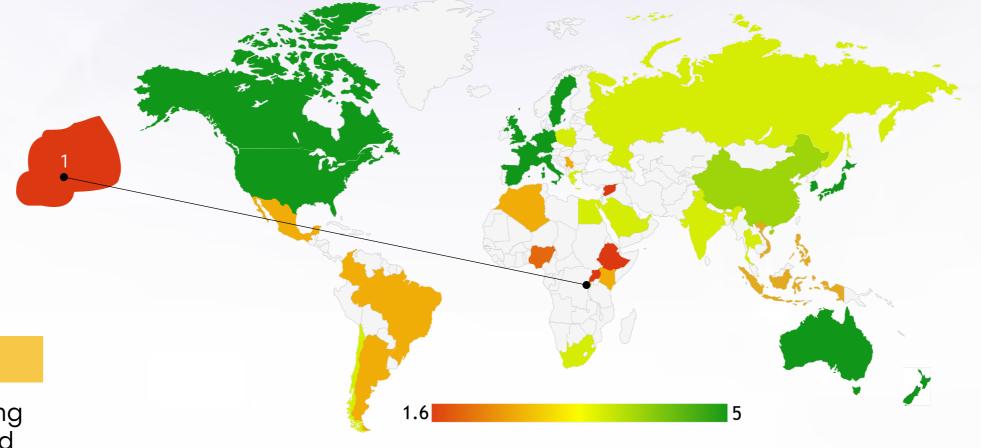
- Invest in regional lab networks and standardize biomarker testing.
- Support from global health donors could expand precision oncology.

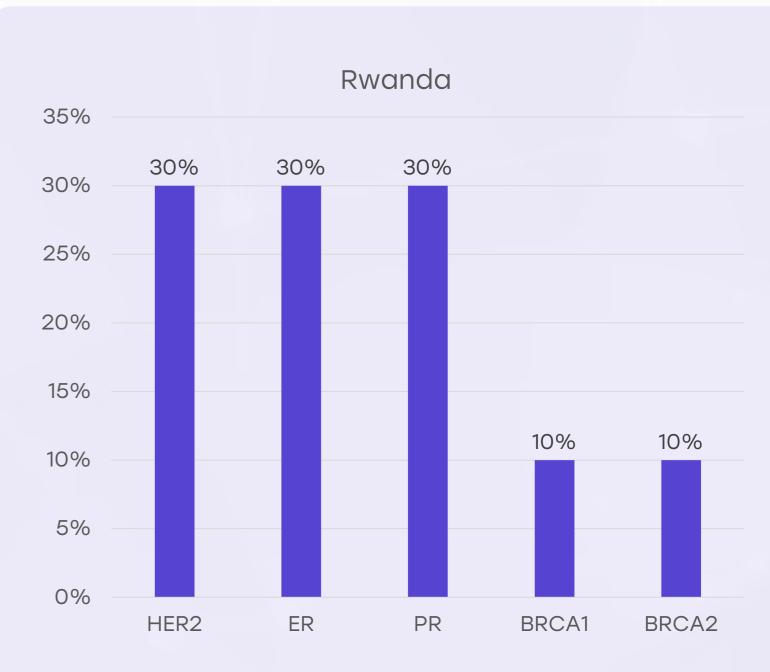
### Weakness

- Biomarker testing underutilized and costly; BRCA tests rarely accessible.
- No nationwide reimbursement for genomic testing.

- Limited test availability delays appropriate treatment decisions.
- Patients in rural areas are excluded from targeted therapy options.

- 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.







**Clinical Guidelines** 

### Strengths

- National hospitals like Kenyatta integrate updated protocols and global guidelines.
- Free chemotherapy available in some public institutions.

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### Weakness

- Most regional hospitals lack multidisciplinary teams or standardized care pathways.
- Limited oncologist training and weak engagement with global updates.

### Opportunity

- Expand oncology training and promote tumor boards in county hospitals.
- Disseminate simplified guideline summaries for frontline providers.

- Non-uniform implementation of guidelines leads to variable care quality.
- Delays in adopting new standards undermine clinical consistency



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



Reimbursement

### Strengths

- NHIF offers partial subsidies for chemotherapy and radiotherapy.
- Public hospitals provide some subsidized oncology care.

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### Weakness

- No comprehensive reimbursement for advanced treatments or
- patients face financial hardship during treatment.

### Opportunity

- Introduce national policies for full coverage of essential cancer treatments.
- Expand NHIF benefits to cover molecular testing and supportive care.

- diagnostics.
- Up to 80% of

- High costs force delays in diagnosis and therapy, worsening outcomes.
- Private sector care remains unaffordable for most patients.



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



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Breast Cancer Screening

### Strengths

- Screening services available in major cities and select NGOs run outreach programs.
- Local campaigns like those by Faraja Cancer Support raise awareness.

### Weakness

- No national screening program; uptake remains around 12%.
- Services are inaccessible for rural populations due to distance and cost.

### Opportunity

- Scale mobile screening units and community awareness campaigns.
- Integrate breast cancer screening into primary healthcare and maternal health services.

- Low screening rates perpetuate late diagnoses and poor survival.
- Lack of political prioritization risks further neglect of early detection.

| 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-<br>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)                       |