



Asia-Pacific
Economic Cooperation

APEC Breast Cancer Roadmap 2026–2030

Strengthening Breast Cancer Care Pathways
Across APEC Economies



APEC Health Working Group
October 2026



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APEC Project: HWG 08 2026S

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APEC#226-HT-03.3

Executive Summary

Breast cancer is the most commonly diagnosed cancer among women worldwide and one of the most consequential health and economic challenges facing APEC economies. In 2023 alone, an estimated 2.3 million women were diagnosed and 764,000 died from the disease. By 2050, annual cases are projected to reach 3.6 million. The macroeconomic cost — through lost productivity, household financial hardship, and health system expenditure — is estimated at USD 2 trillion between 2020 and 2050. Across the Asia-Pacific, breast cancer mortality is often higher than the OECD average despite lower incidence rates, a gap that reflects avoidable delays in detection, diagnosis, and treatment rather than the disease itself.

The evidence is clear: where health systems identify breast cancer early and support patients through coordinated, uninterrupted care, outcomes improve substantially. Mortality from breast cancer fell by approximately 30% in high-income settings between 1990 and 2023 — demonstrating that progress is achievable when policy, financing, and service delivery work together. APEC has the experience and the cooperative architecture to accelerate this progress across all economies. The Roadmap reflects a clear theory of change: when health systems strengthen each stage of the care pathway — from early detection and timely diagnosis, through appropriate risk stratification and evidence-based adjuvant treatment (treatment given after primary surgery to reduce the risk of cancer returning), to recurrence prevention and long-term follow-up — survival improves and the human and economic costs of the disease decline.



The APEC Breast Cancer Roadmap 2026–2030 is a voluntary, non-binding, and economy-led policy framework designed to support APEC member economies in strengthening breast cancer care — from early detection through survivorship. It is not a clinical guideline, a compliance instrument, or a ranking mechanism. It is a practical tool for collective action, peer learning, and economy-driven improvement.

The Roadmap is organised around ten Actions across two thematic areas. The first — Strengthening the Breast Cancer Care Continuum from Early Detection through Recurrence Prevention — addresses early detection and screening, timely diagnosis and referral, treatment access and pathway completion, risk-adapted treatment, adjuvant care and recurrence prevention, survivorship and follow-up, and the care experience for patients and families. The second — Systemic Enablers for Accessible and Sustainable Pathway Strengthening — addresses health financing, workforce capacity, digital health, and access to therapeutic innovation, data systems, stakeholder engagement, and mechanisms for policy learning and regional exchange.

To support implementation, the Roadmap is accompanied by the System Readiness Assessment Tool (SRAT) — a self-assessment instrument developed as an integral part of this Roadmap. The SRAT allows each economy to map its own starting point, identify priorities, and track progress across the 2026–2030 period. Results are for internal use and voluntary sharing.

APEC economies are invited to engage with this Roadmap on their own terms — adapting its actions to their governance arrangements, financing context, and domestic priorities. The Roadmap enables more coordinated care, broader and more consistent access, and a sustained regional conversation about what works.

The Roadmap recognises that meaningful progress requires action across the full care continuum — including ensuring that patients with high-risk early breast cancer have timely access to evidence-based adjuvant therapies proven to prevent recurrence. Closing this access gap across APEC economies is both a clinical imperative and a sound economic investment, and it is a challenge that the cooperative architecture of APEC is uniquely positioned to address.

Progress is possible. The evidence is clear. The time is now.

The challenge



2.3 Million
New cases globally in 2023



764,000
Deaths globally in 2023



USD 2 trillion
Macroeconomic cost, 2020–2050

This burden plays out across every stage of care — and so does the opportunity to reduce it.
The care pathway — where the Roadmap acts as an enabler to strengthen the Breast Cancer Care Continuum



1
Early Detection
& Screening



2
Diagnosis
& Referral



3
Treatment
Access
& Pathway
Completion



4
Adjuvant
Treatment
& Recurrence
Prevention



5
Follow-up,
Survivorship
& Continuity
of Care

APEC Breast Cancer Roadmap 2026–2030

Thematic area 1

Strengthening the Breast Cancer Care Continuum from Early Detection through Recurrence Prevention

- 1** Strengthen Early Detection and Screening Pathways.
- 2** Improve Timely Diagnosis and Referral Coordination.
- 3** Strengthen Treatment Access and Pathway Completion.
- 4** Strengthen Risk-Adapted Treatment, Adjuvant Care and Recurrence Prevention.
- 5** Strengthen Follow-up, Survivorship and Continuity of Care.
- 6** Improve the Care Experience for Patients and Families.

Thematic area 2

Systemic Enablers for Accessible and Sustainable Pathway Strengthening

- 7** Support Sustainable Health Financing Across the Care Continuum.
- 8** Strengthen Service Delivery, Workforce Capacity and Accessible Care.
- 9** Strengthen Data, Monitoring and Learning Systems.
- 10** Strengthen Multi-stakeholder Coordination and Policy Learning.

System Readiness Assessment Tool (SRAT)

Self-assessment - Built into Roadmap - Economy-led

Helps economies map their starting point, identify priorities, and track progress - Results for internal use and voluntary sharing

Baseline 2026 • Review 2028 • Final 2030

Progress is possible. The evidence is clear. The time is now.

Where health systems detect early and coordinate care, outcomes improve substantially.
APEC has the cooperative architecture to make that the norm across the region.

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List of Abbreviations

AI	Artificial Intelligence
ANCCA	Asian National Cancer Centers Alliance
APEC	Asia-Pacific Economic Cooperation
APEC HWG	APEC Health Working Group
ASCO	American Society of Clinical Oncology
ASIR	Age-Standardised Incidence Rate
ASMR	Age-Standardised Mortality Rate
CBE	Clinical Breast Examination
DALYs	Disability-Adjusted Life-Years
ER	Oestrogen Receptor
ESMO	European Society for Medical Oncology
GBD	Global Burden of Disease
HER2	Human Epidermal Growth Factor Receptor 2
HLMHE	High-Level Meeting on Health and the Economy
HTA	Health Technology Assessment
HWG	Health Working Group
KPI	Key Performance Indicator
MASCC	Multinational Association for Supportive Care in Cancer
M&E	Monitoring and Evaluation
MDT	Multidisciplinary Team
mHealth	Mobile Health
NCD	Non-Communicable Disease
NCCN	National Comprehensive Cancer Network
OECD	Organisation for Economic Co-operation and Development
PHC	Primary Health Care
PR	Progesterone Receptor
QA	Quality Assurance
SCPs	Survivorship Care Plans
SMS	Short Message Service
SRAT	System Readiness Assessment Tool
TNM	Tumour, Node, Metastasis (cancer staging classification system)

01

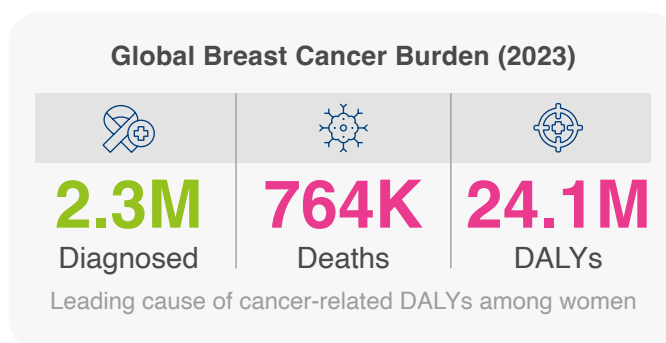
Introduction



1. Introduction

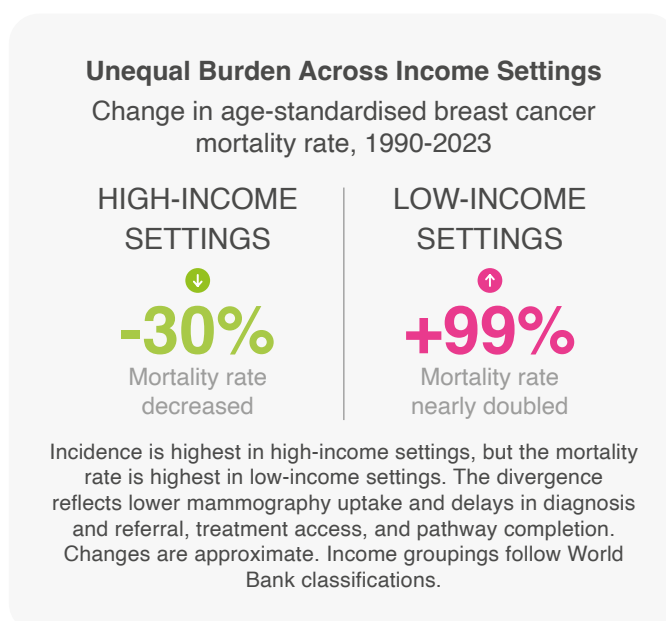
1.1 Breast Cancer as a Health, Economic, and Social Challenge for APEC

Breast cancer is the most commonly diagnosed cancer among women globally and remains a major and growing challenge across APEC economies.^{1,2,3} In 2023, an estimated 2.3 million women were diagnosed with breast cancer worldwide, and approximately 764,000 died from the disease, generating 24.1 million disability-adjusted life-years (DALYs) and making it the leading cause of cancer-related DALYs among females. Since 1990, the total number of DALYs globally has more than doubled, from 11.7 million to 24.1 million. Forecasts suggest that by 2050, annual cases could reach 3.6 million and deaths 1.4 million, driven largely by population growth, ageing, and rising incidence in lower-income settings.^{4,5}



The burden is not evenly distributed. Although the highest age-standardised incidence rates are observed in high-income settings, the age-standardised mortality rate is highest in low-income settings. Between 1990 and 2023, age-standardised mortality rates decreased by approximately 30% in high-income settings but increased by approximately 99% in low-income settings. In Asia-Pacific, mortality is often higher than the OECD average despite lower incidence, partly reflecting lower mammography uptake and delays in diagnosis and referral, treatment access, and pathway completion.⁶ Across several APEC economies, age-standardised mortality rates remain significantly above the regional average, coinciding with sharp rises in incidence since 1990 — underscoring the urgency of coordinated pathway strengthening across the region. In the absence of sustained policy attention, progress towards internationally recognised targets for reducing breast cancer mortality may remain insufficient.⁷

Breast cancer also carries important socio-economic consequences because it affects women throughout the life course and interacts with household welfare, labour participation, caregiving roles, and wider social productivity.⁸ The costs extend well beyond direct medical spending: a 2023 study projected the global macroeconomic cost of breast cancer at USD 2 trillion between 2020 and 2050, making it one of the costliest cancers globally.⁹ Evidence from a global meta-analysis shows that the costs of breast cancer care place a significant financial burden on patients and households, with the greatest impact on those in lower-income settings.¹⁰



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Within APEC, these trends are directly relevant because the region includes economies at very different stages of development, financing maturity, and service-delivery capacity.^{11,12} This variation shapes early detection & screening, diagnosis & referral, treatment access & pathway completion, and follow-up, survivorship & continuity of care, and outcomes—but it also creates a strong basis for practical exchange, peer learning, and economy-led cooperation.^{13,14}

1.2 The Case for a Regional Roadmap: Shared Challenges, Coordinated Action

Across APEC economies, breast cancer continues to claim lives that timely, coordinated care could save. A distinctive feature of breast cancer across Asia-Pacific is its earlier age of onset compared to Western settings: incidence peaks among women in their 40s and early 50s across several APEC economies, a decade earlier than the OECD average. This pattern amplifies the economic consequences of the disease, affecting patients during peak working and caregiving years, and underscores the importance of age-appropriate screening policies and timely access to effective treatment. Disability-adjusted life-years lost to breast cancer globally reached 24.1 million in 2023, with a rising share concentrated in Asia-Pacific economies where incidence is growing and mortality remains high.¹⁵ For APEC — a forum whose core mandate is economic cooperation and sustained prosperity — this burden represents a direct drag on workforce productivity, household economic security, and long-term growth.

Despite variation in health system organisation and resource context, economies share a common set of critical challenges: low uptake of early detection and screening, delays between first presentation and confirmed diagnosis, weak referral coordination, fragmented service delivery, financial and geographic obstacles to treatment continuity, and insufficient investment in follow-up and survivorship. Without a coordinated regional response, these gaps will persist, and the human and economic costs will grow.

APEC uniquely positions the region to facilitate the exchange of implementation experience, identify common bottlenecks, and advance adaptable solutions that respect each economy's priorities, stage of development, and resource context. This Roadmap is not a prescriptive standard — it is a framework for action, policy dialogue, and sustained, cross-economy learning that can meaningfully shift breast cancer outcomes across the region.

The economic case for prioritising early breast cancer is compelling and specific. The foundation is early detection: diagnosing breast cancer at an early stage, when treatment is more effective and less costly, is the single most powerful driver of better survival and lower system costs across the pathway. Building on early diagnosis, timely and appropriate treatment then determines whether those gains are sustained. Patients with stage II–III HR+/HER2– early breast cancer face a risk of invasive disease recurrence of 26% at 5 years, rising to 45% at 10 years, even with standard adjuvant endocrine therapy.¹⁶ The risk of distant metastasis persists for two decades after primary diagnosis.¹⁷ When recurrence occurs in a patient diagnosed at age 45, the transition to incurable metastatic disease represents a loss of 20–30 potential productive years — at profound personal cost and with cascading economic consequences for households: in many APEC economies, women in this age group

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are primary caregivers for both children and elderly parents, meaning a metastatic recurrence affects not only the patient's earnings but the workforce participation of other family members who step in to provide care. Evidence from activity-based costing models shows that treatment costs for metastatic disease can be seven to ten times higher than for early-stage disease of the same subtype¹⁸ — reframing investment in early diagnosis and in adjuvant therapy as a cost-avoidance strategy for APEC health systems, not an added expense. Evidence-based adjuvant therapies, such as CDK4/6 inhibitors for high-risk HR+/HER2– early breast cancer, have demonstrated meaningful reductions in recurrence risk, as reflected in current clinical practice guidelines, including the latest NCCN (2026) and ESMO guidelines. Yet across APEC economies, gains at every stage remain uneven — from disparities in screening coverage and diagnostic timeliness to gaps in treatment access shaped by regulatory approval timelines, reimbursement gaps, and limited HTA capacity. Closing these gaps across the full pathway is not only a clinical priority — it is a measurable economic investment in the productivity and resilience of APEC economies.

1.3 Why Pathway Strengthening Matters

Breast cancer outcomes depend not only on whether individual services exist, but on whether women can move through the full pathway without avoidable delay, fragmentation, or loss to follow-up.^{19,20} Early detection & screening encompasses both early diagnosis of symptomatic disease and organised screening of asymptomatic populations, and must be linked to treatment access & pathway completion and follow-up, survivorship & continuity of care to realise their potential benefits.^{21,22} Therapies are more effective and better tolerated when started early and taken to completion.²³

Evidence shows that when early detection and screening, diagnosis and referral, and treatment access and pathway completion are combined, survival improves substantially. The same evidence shows that treatment completion is often the most challenging part of the care continuum, which reinforces the need to address the pathway as an integrated whole.²⁴ Recurrent implementation problems often arise at the interfaces between services rather than within a single clinical step.^{25,26}

Better policy also depends on better measurement, yet breast cancer data remain uneven across settings.^{27,28,29} A feasibility study across 21 Asian economies found that most lacked published data on stage at diagnosis, timely diagnosis, and treatment completion.³⁰ A complementary study demonstrated that hospital-based data collection systems can measure the main pathway indicators even in resource-constrained settings, provided appropriate adaptations are made.³¹ For an APEC Roadmap, this means monitoring should be rigorous enough to support learning, but pragmatic enough to remain feasible across economies with different data capacities.^{32,33}

Care Pathway Flow Diagram



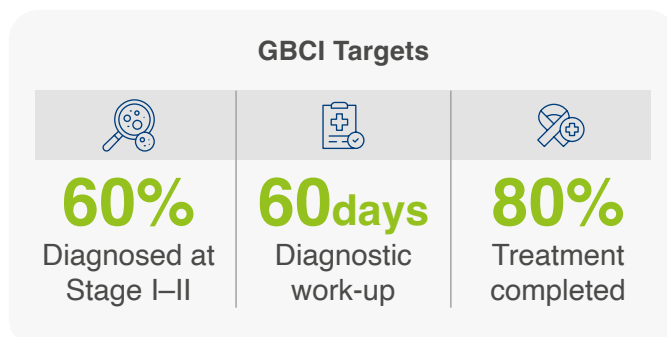
1. Introduction

1.4 Alignment with Global and Regional Frameworks

This Roadmap aligns with internationally recognised priorities and evidence-based benchmarks in breast cancer care. The global clinical and policy community has converged on a core set of strategic pillars — Early Detection & Screening, Diagnosis & Referral, and Treatment Access & Pathway Completion — that together define a high-performing breast cancer pathway.³⁴ Alongside

these pillars, evidence-based benchmarks provide measurable targets to guide monitoring and inform policy prioritisation: diagnosing at least 60% of invasive breast cancers at stage I or II; completing diagnostic work-up within 60 days of patient's first presentation to the healthcare system; starting treatment within 3 months from the onset of symptoms, and ensuring that at least 80% of patients complete recommended treatment without abandonment.³⁵ These benchmarks are consistent with standards established by the European Society for Medical Oncology (ESMO), the American Society of Clinical Oncology (ASCO), the EU's Beating Cancer Plan, and jurisdictional frameworks such as Ontario's Breast Cancer Diagnosis Pathway — and are reflected in the implementation experience of APEC economies with established programmes. Australia's BreastScreen Accreditation Standards require that 90% of women with screen-detected abnormalities are assessed within 28 days — a timeliness benchmark that directly links screening to timely diagnosis.³⁶ Evidence from across Asia demonstrates that the proportion of breast cancers diagnosed at early stage correlates strongly with five-year survival, reinforcing the value of these benchmarks as practical and policy-relevant tools.

While APEC economies have made meaningful progress in building monitoring frameworks for breast cancer, opportunities remain to strengthen what is measured across the care continuum. A high-performing pathway depends on measuring outcomes at every stage — from early detection and timely diagnosis, through treatment access, to recurrence prevention and survivorship — since weakness at any point limits the gains achievable elsewhere. Areas where economies may wish to consider expanding their indicator frameworks include: the proportion of breast cancers diagnosed at early stage (Stage I or II), which remains the single strongest predictor of survival and a priority measure across the region; the timeliness of diagnosis and referral, from first presentation to confirmed diagnosis; treatment initiation and completion rates; continuity of care indicators such as recurrence-free survival and adjuvant therapy completion rates; and time from regulatory approval to patient access for evidence-based therapies. Across all of these, economies may wish to consider how well their monitoring reflects the full pathway — including whether early-detection coverage reaches underserved populations, and whether reimbursement and access frameworks keep pace with current clinical evidence. Internationally recognised clinical guidelines — including the latest NCCN (2026) and ESMO Early Breast Cancer Clinical Practice Guidelines — provide a strong evidence base spanning diagnosis and treatment for early breast cancer that economies can draw on as they review and strengthen their own policy frameworks at their own pace and according to their own priorities.



1. Introduction

This Roadmap translates internationally recognised standards into a practical regional policy lens that supports economy-led interpretation, prioritisation, and application across varied contexts — bridging clinical evidence and population-level policy in a way that is practical, adaptable, and economy-led.

1.5 Purpose and Intended Use

The APEC Breast Cancer Roadmap 2026–2030 is intended to provide a voluntary, practical framework to support economies in strengthening pathways across early detection, diagnosis and referral, treatment, follow-up, and survivorship. It is designed for ministries of health, cancer programme managers and technical teams, other policy and technical stakeholders and aims to support dialogue on recurring implementation challenges, promising practices, and feasible actions.

The Roadmap is a tool for structured cooperation, peer learning, and economy-led action.

To support implementation, the Roadmap is accompanied by a System Readiness Assessment Tool (SRAT) — a self-assessment instrument designed to help economies identify their current strengths and gaps, set priorities, and track their own progress across the 2026–2030 period. Its five domains, indicators, and maturity stages are directly derived from the Roadmap's thematic areas, and ten Actions, ensuring alignment between assessment and implementation.

The SRAT is a resource for internal planning and voluntary peer learning. It is included as Appendix I.



02

APEC Economies' Progress and Recurring Challenges



2. APEC Economies' Progress and Recurring Challenges

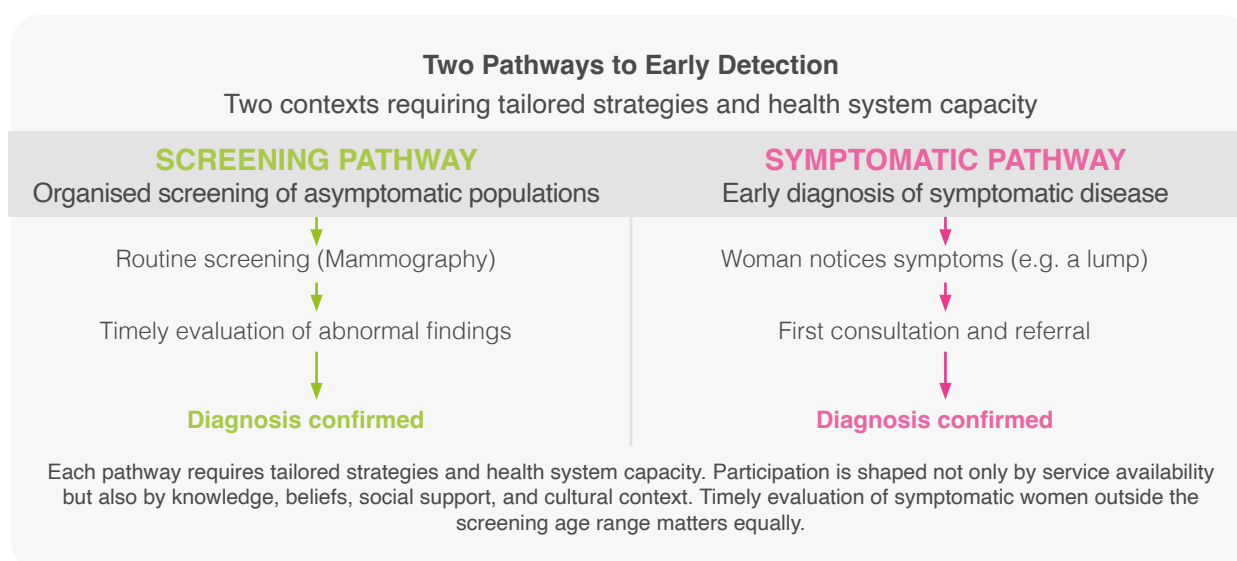
Evidence shows a consistent pattern: breast cancer outcomes are shaped not only by disease burden, but by how effectively health systems support early detection, timely diagnosis, treatment continuity, survivorship, and data-informed improvement.^{37,38,39}

2.1 Early Detection and Screening

Screening participation across APEC economies reflects a broad range of progress, shaped by differences in health system development, infrastructure, and population needs. Data indicate that mortality from breast cancer in the region is often higher than the OECD average despite lower overall incidence. This pattern points to the potential gains achievable through earlier detection. A feasibility assessment across 21 Asian economies found that only three met the benchmark of diagnosing more than 60% of invasive breast cancers at an early stage,⁴⁰ highlighting the significant opportunity for shared learning across the region. Realising this opportunity requires distinguishing between two contexts: organised screening of asymptomatic populations, and early diagnosis among women who present with symptoms — each requiring tailored strategies and health system capacity.^{41,42} Participation in either pathway is shaped not only by service availability but also by knowledge, beliefs, social support, and cultural context.⁴³

Participation and coverage alone, however, does not guarantee impact. The effectiveness of screening also depends on the quality of the programme behind it — including quality assurance mechanisms for mammography, timely evaluation of abnormal findings, and clearly defined referral pathways linking screening results to diagnostic services. Timely diagnostic evaluation of symptomatic women, including those outside the organised screening age range, is equally important and remains an area where several economies have identified opportunities for improvement.

Validated digital health technologies — such as AI-assisted image interpretation, telemedicine, and other evidence-based innovations — may also serve as support tools to strengthen early detection. Where adopted, and consistent with each economy's domestic circumstances, these tools can help improve diagnostic quality, expand access in remote and resource-limited settings, and support timely clinical decision-making, with appropriate clinical oversight and regulatory governance determined by each economy.



2. APEC Economies' Progress and Recurring Challenges

2.2 Diagnosis and Referral Timeliness

Delays within diagnosis and referral often arise at multiple points in the pathway. The clinical and policy literature consistently identifies timely diagnosis and referral as a distinct implementation priority, recognising that delays at any stage can compromise outcomes.^{44,45} Evidence shows that interventions achieve greater impact on timeliness when they identify and address real bottlenecks across the entire patient pathway, rather than focusing on isolated steps.⁴⁶ The recurring challenge is not only whether diagnostic services exist, but whether women can move from first concern to confirmed diagnosis quickly and predictably.^{47,48,49}

Addressing these delays depends in large part on how well care levels work together. Integrated care pathways — supported by clear referral and counter-referral mechanisms, defined roles and responsibilities across primary, secondary, and tertiary care, multidisciplinary collaboration, and timely communication between care levels — help reduce delays, avoid fragmentation, and ensure continuity of care throughout the patient's care process, regardless of their point of entry into the health system. Experience across economies suggests that a patient-centred approach to coordination, adapted to each health system's structure and governance arrangements, is central to making diagnostic pathways function quickly and predictably in practice.

2.3 Treatment Access and Pathway Completion

Breast cancer is not a single disease. It comprises distinct molecular subtypes that differ substantially in how they develop, how they respond to treatment, and how likely they are to recur — meaning that the patient pathway, the treatment approach, and the policy implications vary significantly depending on subtype. For policymakers, this has a direct consequence: treatment access cannot be defined simply as the availability of any treatment, but must encompass access to the right treatment for each patient, matched to the biology of their tumour. The subsections below explore the two dimensions of this challenge most relevant to APEC economies: subtype-specific treatment pathways and adjuvant therapy for high-risk early breast cancer as a policy-level recurrence prevention strategy.

Treatment effectiveness depends on whether patients can start and complete recommended care without avoidable interruption.^{50,51} A major meta-analysis found that even a four-week delay from diagnosis to treatment is associated with increased mortality.⁵² Multidisciplinary care can improve survival and reduce variation in outcomes,⁵³ but fragmentation of services, understaffing, and geographic gaps remain major challenges in many settings.⁵⁴

Achieving this requires continuous professional education across the full patient pathway.^{55,56,57} Clinical knowledge in breast cancer evolves rapidly, and health professionals at every level — from primary care providers who manage initial referral and early detection, to pathologists, surgeons, medical and radiation oncologists, nurses, and rehabilitation specialists — need regular updates on diagnostic standards, treatment protocols, and supportive care best practices.^{58,59} In many settings, professional training remains concentrated in tertiary centres, leaving providers in community, rural, and lower-resource facilities without adequate access to continuing education.^{60,61} The Lancet Breast Cancer Commission has emphasised that workforce education, including training in multidisciplinary and person-centred approaches, is a core enabler of pathway performance and should be treated as an investment rather than an afterthought.⁶²

2. APEC Economies' Progress and Recurring Challenges

A further challenge is access to innovation and to the best available treatments.⁶³ Therapeutic advances — including targeted therapies, immunotherapies, and improved supportive care — have contributed to substantial survival gains in high-income settings, but adoption across APEC economies remains uneven.^{64,65} Challenges include regulatory delays, affordability constraints, limited capacity for health technology assessment, supply chain fragmentation, and insufficient infrastructure for the safe administration and monitoring of newer agents.^{66,67} For the Roadmap, ensuring that economies can progressively improve access to evidence-based innovations — at a pace consistent with their regulatory, financial, and health-system capacity — is essential to narrowing the survival gap across the region.

Coverage and reimbursement design can also influence how effectively patients move through the care pathway. The way benefits are structured — including eligibility criteria and rules relating to treatment across different stages of the disease — can have implications for continuity of care. As economies review and strengthen their pathways over time, they may wish to consider how coverage frameworks interact with the goals of early detection and timely treatment, in a manner consistent with each economy's financing arrangements, domestic priorities, and health objectives.

2.3.1 Molecular Subtypes and Subtype-Specific Treatment Pathways

Effective treatment access requires recognition that breast cancer is not a single disease. Three principal subtypes — hormone receptor-positive, HER2-negative (HR+/HER2–); HER2-positive (HER2+); and triple-negative breast cancer (TNBC) — differ substantially in prognosis, treatment response, and recurrence patterns, and require distinct therapeutic approaches. Accurate biomarker testing to determine subtype is therefore a prerequisite for appropriate treatment matching, not an optional add-on. In many APEC economies, access to reliable biomarker testing remains inconsistent, leading to situations where patients receive treatment that is not optimally matched to the biology of their tumour. For policymakers, this underlines that treatment access must be understood not only as the availability of any treatment, but as access to the right treatment for each patient — a distinction with significant implications for health system investment, formulary design, and clinical workforce training.

Underpinning all of this is timely access to high-quality pathology and biomarker testing, which is a fundamental requirement for accurate diagnosis, molecular subtype classification, risk stratification, and evidence-based treatment selection. Strengthening pathology services is therefore central to this stage of the pathway. Quality assurance programmes, standardised reporting, adequate laboratory capacity, timely turnaround times, and increased access to validated biomarker testing — including ER, PR, HER2, and Ki-67 — help ensure that subtype classification translates reliably into appropriately matched treatment. In line with each economy's clinical practice and available resources, investment in these services supports the accurate, timely diagnosis on which the rest of the treatment pathway depends.

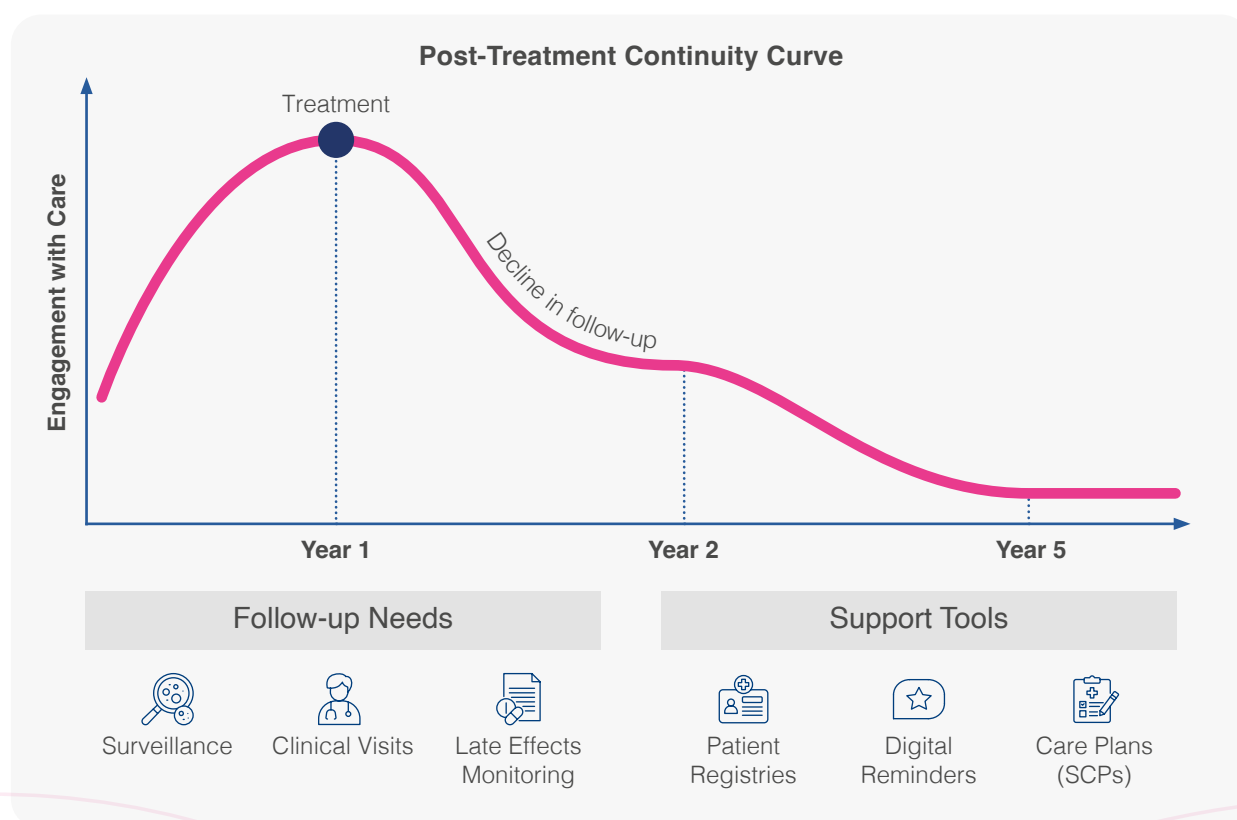
2. APEC Economies' Progress and Recurring Challenges

2.3.2 Adjuvant Therapy for High-Risk Early Breast Cancer and Recurrence Prevention

This section outlines one of the most consequential — and most actionable — policy opportunities in the breast cancer pathway: preventing recurrence through time-limited, evidence-based adjuvant therapy before disease progresses to incurable metastatic stage.

Among the most significant recent advances in breast cancer care is the demonstrated ability to reduce the risk of recurrence in patients with high-risk early breast cancer through evidence-based adjuvant therapies. For patients with high-risk HR+/HER2– early breast cancer — the most common breast cancer subtype globally, accounting for approximately 70% of all diagnoses — evidence-based adjuvant therapies have demonstrated meaningful reductions in recurrence risk, as reflected in contemporary international clinical practice guidelines. Preventing recurrence is not only a clinical goal: it avoids the substantially higher costs of treating metastatic disease, preserves patients' workforce participation and quality of life, and reduces the long-term burden on health systems. For policymakers and health system planners, this represents a compelling investment case — early, targeted intervention in high-risk patients generates measurable long-term savings and productivity gains that extend well beyond the health sector.

Yet across APEC economies, access to adjuvant therapies for high-risk early breast cancer remains uneven, shaped by regulatory approval timelines, reimbursement gaps, HTA capacity constraints, and formulary limitations. As with any therapeutic intervention, access depends on regulatory processes, health technology assessment, cost-effectiveness and budget-impact considerations, and each economy's health priorities. Closing this access gap would benefit from coordinated action across health ministries, finance ministries, and regulatory agencies — making it precisely the kind of cross-sectoral policy challenge that an APEC Roadmap is uniquely positioned to address.



2. APEC Economies' Progress and Recurring Challenges

2.4 Follow-up, Survivorship, and Continuity of Care

Follow-up and survivorship remain less developed than diagnosis and treatment, despite growing recognition that breast cancer care extends well beyond active therapy.^{68,69,70} Breast cancer survivors frequently report substantial psychological, emotional, physical, and informational needs. Patient navigation can help patients move through complex health systems and receive more timely care.⁷¹

Critically, continuity of care must not end at remission. Patients who achieve remission require structured, long-term follow-up mechanisms—including scheduled surveillance screenings, routine diagnostic tests, and ongoing clinical assessments—to detect potential recurrence early and manage late effects of treatment.^{72,73} Internationally recognised clinical guidelines recommend annual mammography alongside periodic clinical visits, with the frequency and scope of surveillance adjusted over time based on individual risk factors.^{74,75} Yet adherence to these protocols often declines: studies have shown that by the fifth year post-treatment, follow-up visits can drop significantly, and a substantial proportion of survivors receive fewer mammograms than recommended.⁷⁶ Ensuring sustained adherence to post-remission monitoring requires accessible tools, such as patient registries, digital health reminders, and survivorship care plans (SCPs), that clearly outline recommended timelines for follow-up examinations.^{77,78} Research shows that personalised SCPs improve survivors' knowledge, satisfaction with care, and communication with providers, and that the vast majority of patients who receive them report a better understanding of available support services.^{79,80}

Sustaining this continuity requires active commitment of economies and communities. It is recommended that health systems institutionalise post-remission surveillance as a core component of cancer care policy, allocating resources for follow-up infrastructure and training primary care providers to manage survivorship needs.⁸¹

Primary Health Care plays a central role throughout the entire breast cancer care pathway — not only in early detection, but also in patient education, risk assessment, referral coordination, survivorship care, long-term treatment management, psychosocial support, and continuity of care. In many health systems, primary care is often the point of the health system closest and most accessible to patients, strengthening its capacity contributes to cancer care that is more integrated and person-centred. Well-resourced primary care teams, working in coordination with specialist services, help ensure that patients remain connected to care across every stage — from initial concern through long-term follow-up — regardless of where they enter the system.

Across APEC economies, there is growing recognition that survivorship represents a distinct and important phase of the cancer care continuum. Economies including Australia; Japan; Republic of Korea; Malaysia; the Philippines; and Singapore have taken meaningful steps to integrate survivorship into local cancer control plans and policy frameworks, reflecting a shared commitment to addressing the long-term needs of cancer survivors.^{82,83} The Republic of Korea, for example, has established a network of integrated supportive cancer survivorship centres at the regional level. At the same time, Japan has developed guidelines for long-term follow-up care, rehabilitation, and return to work.

2. APEC Economies' Progress and Recurring Challenges

Community-based support networks—including peer support programmes, local health workers, and community organisations—play a vital role in reinforcing adherence to follow-up schedules and addressing the social and emotional dimensions of long-term survivorship.^{84,85} Peer support has been shown to complement clinical services by improving patients' treatment adherence, motivation, and coping capacity cost-effectively.⁸⁶ Without this coordinated commitment from both institutional and community actors, patients risk falling out of the care continuum precisely when sustained vigilance is most needed.

2.5 Financing and Data as Foundational Enablers

Across the breast cancer care continuum, two foundational enablers consistently determine whether pathway improvements translate into sustained outcomes: financing adequacy and data infrastructure.^{87,88,89}

Financial burden remains one of the most pervasive obstacles to timely diagnosis, referral and treatment and pathway completion, particularly in settings where high out-of-pocket costs drive delayed care-seeking, treatment abandonment, and catastrophic health expenditure. Evidence demonstrates that the proportion of breast cancer diagnosed at early stage correlates strongly not only with five-year survival rates but also with health financing coverage indices, reinforcing that health financing and system capacity are not peripheral concerns but core determinants of clinical outcomes.⁹⁰

Equally critical is the availability of data infrastructure. Population-based cancer registries remain foundational for surveillance, planning, and monitoring progress across the breast cancer pathway. Across many APEC economies, registry coverage and data quality vary considerably, creating gaps in staging information that are essential for measuring early detection and screening performance and evaluating policy progress.^{91,92} Strengthening data systems is therefore not a technical afterthought — it is a prerequisite for economies to assess their own starting points, track improvement over time, and make evidence-informed decisions that reflect their specific contexts and priorities.

These patterns underscore the need for a Roadmap approach that does not treat accessibility, financing, patient safety, workforce capacity, and data systems as secondary or supplementary considerations, but rather as core enabling conditions upon which sustained improvement across the entire breast cancer pathway depends.^{93,94,95}

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Structure of the APEC Breast Cancer Roadmap 2026–2030



3. Structure of the APEC Breast Cancer Roadmap 2026–2030

The Roadmap provides a practical framework to support economy-led action and regional learning. It is structured around an end-to-end patient pathway lens that reflects recognised priorities across the early detection and screening pathway, timely diagnosis and referral coordination, treatment access and pathway completion, follow-up, survivorship and continuity of care, and the system enablers for accessible and sustainable pathway strengthening required to sustain progress over time.

3.1 Principles

People-centred	Pathway design should reflect the experience and needs of patients, families, and caregivers, recognising that engaged and informed patients achieve better health outcomes — reducing the broader economic burden of disease on households and economies.
Access-oriented	Implementation should seek to progressively expand access, timeliness, quality, and continuity of care across all populations, recognising that untreated or delayed care generates avoidable long-term costs to health systems and reduces workforce participation.
Evidence-informed	Policies should be guided by the best available evidence, with monitoring that supports learning and continuous improvement, enabling economies to direct investments towards interventions with the greatest clinical and economic return.
Safe and quality-driven	Patient safety should be integrated as a core consideration across the pathway, including safe care transitions, quality assurance mechanisms, and adoption of standards appropriate to each economy.
Economy-led and adaptable	Economies are encouraged to prioritise pathway segments, delivery models, and sequencing that best match their readiness, resources, and priorities, maximising the return on health investment within existing fiscal constraints.
Whole-of-society and coordinated	Progress depends on coordination across economies, clinical leaders, service providers, community organisations, researchers, and caregivers, recognising that well-coordinated systems reduce fragmentation, lower system costs, and support survivors in returning to productive economic and social life.
Sustainably financed	Sustainable financing models are desirable to extend coverage across the full continuum of care, protecting patients and families from financial hardship while recognising that investment in cancer care yields measurable returns through preserved workforce productivity and reduced long-term health system expenditure.

3.2 Thematic Areas

Thematic Area 1:

Strengthening the Breast Cancer Care Continuum—from Early Detection through Recurrence Prevention

Focuses on continuity and quality access across the full pathway, from early detection through survivorship, emphasising reduced fragmentation and improved coordination.

Thematic Area 2:

Systemic Enablers for Accessible and Sustainable Pathway Strengthening

Focuses on accessibility, sustainable financing and financial protection, workforce capacity, data systems, patient safety, digital health and access to innovation, stakeholder engagement including community organisations, and mechanisms for policy learning.

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3.3 Roadmap Action Agenda

The 10-point Roadmap Action Agenda outlines key strategies to strengthen breast cancer prevention, early detection, diagnosis, treatment, and survivorship across the care continuum, and to enhance the systemic enablers that support sustained pathway improvement.

Roadmap Action Agenda At A Glance:

Thematic area 1

Strengthening the Breast Cancer Care Continuum from Early Detection through Recurrence Prevention

- 1 Strengthen Early Detection and Screening Pathways.
- 2 Improve Timely Diagnosis and Referral Coordination.
- 3 Strengthen Treatment Access and Pathway Completion.
- 4 Strengthen Risk-Adapted Treatment, Adjuvant Care and Recurrence Prevention.
- 5 Strengthen Follow-up, Survivorship and Continuity of Care.
- 6 Improve the Care Experience for Patients and Families.

Thematic area 2

Systemic Enablers for Accessible and Sustainable Pathway Strengthening

- 7 Support Sustainable Health Financing Across the Care Continuum.
- 8 Strengthen Service Delivery, Workforce Capacity and Accessible Care.
- 9 Strengthen Data, Monitoring and Learning Systems.
- 10 Strengthen Multi-stakeholder Coordination and Policy Learning.



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Thematic Area 1: Strengthening the Breast Cancer Care Continuum — from Early Detection through Recurrence Prevention

ACTION 1: Strengthen Early Detection and Screening Pathways

Early detection—encompassing both early diagnosis of symptomatic disease and organised screening of asymptomatic populations—remains the first operational pillar of breast cancer mortality reduction. High-quality early detection is consistently associated with improved outcomes when linked to timely follow-up and treatment. Screening participation depends not only on service availability but also on knowledge, beliefs, social support, and cultural context.^{96,97,98}

1.1 Strengthen Screening Policy Design, Quality Assurance, and Referral

- Develop or update evidence-informed screening policies that clearly define target populations, screening modalities, intervals, and quality standards, distinguishing between organised screening and early diagnosis of symptomatic disease according to each economy's readiness and capacity. In defining target populations, economies may wish to consider the full age range relevant to their epidemiology, recognising that both younger-onset patients and older women can be under-served by age cut-offs that do not reflect local disease patterns.
- Establish quality assurance mechanisms for breast cancer screening programmes, including systematic monitoring of recall rates, cancer detection rates, interval cancer rates, false-positive rate, positive predictive value, biopsy recommendation rate, diagnostic resolution rate, and facility-level audit/feedback where feasible.
- Set progressive targets for population coverage and implement structured follow-up protocols, ensuring that women with abnormal results are tracked through to diagnostic resolution or treatment initiation. Where specialist radiology capacity is limited, explore artificial intelligence-assisted interpretation tools as a complement to trained clinical judgment.
- Ensure that screening policies include explicit referral expectations so that women with abnormal findings are systematically linked to diagnostic work-up within defined timeframes.
- Consider phased implementation of screening, beginning with early diagnosis capacity in settings where organised screening infrastructure is not yet in place.

1.2 Increase Participation Through Culturally Appropriate Outreach and Community Engagement

- Design outreach strategies that address known obstacles to screening participation. Even in high-income economies, participation may be hindered by competing life demands, time constraints, and low perceived urgency, alongside more widely documented obstacles such as limited knowledge, fear of results, stigma, and practical obstacles including cost and geographic distance.

3. Structure of the APEC Breast Cancer Roadmap 2026–2030

- Develop joint strategies with the private sector — including employers, workers associations, trade associations, health insurers, and workplace health programmes — to facilitate screening access. This may include initiatives such as targeted screening outreach activities, workplace-based health promotion efforts, or flexible leave arrangements that enable women to attend screening appointments. Public-private collaboration can be particularly effective in reaching women for whom time constraints and competing work-related demands are primary barriers to participation.
- Use community health workers, peer educators, and trusted local organisations to deliver breast health education and encourage timely presentation.
- Engage trusted community figures like local leaders and breast cancer survivors, to help address stigma and misconceptions that can discourage timely screening, drawing on approaches suited to each community's cultural context.
- Deploy mobile screening units and decentralised access points to reach women in rural, remote, or underserved areas.
- Incorporate reminder systems, digital health tools, and invitational models where appropriate to sustain participation over time.
- Consider demand-side incentive mechanisms, including employer-sponsored screening programmes, conditional benefits, or fiscal instruments such as tax relief.

1.3 Improve Continuity of Care After Abnormal Findings Through Structured Follow-through

- Establish structured follow-through protocols that track women from abnormal findings to diagnostic resolution, including designated responsibilities and timelines.
- Implement patient tracking and recall systems to identify and re-engage women who do not complete the diagnostic pathway.
- Address common causes of loss to follow-up, including cost, time, travel, fear, and lack of understanding.

ACTION 2: Improve Timely Diagnosis and Referral Coordination

Where referral pathways, pathology capacity, imaging access, and cross-level coordination remain limited, late-stage presentation continues to be a significant and largely avoidable challenge — one that carries substantial consequences for patients, health systems, and economies alike.^{99,100,101}

2.1 Clarify Referral Triggers and Standardise Care Pathways for Suspected Breast Cancer

- Develop or update clinical referral guidelines defining clear triggers for referral from primary care and community settings to diagnostic and specialist services.
- Standardise referral pathways to reduce variability in how women enter and move through the diagnostic system.
- Introduce or strengthen patient navigation mechanisms at the referral interface.

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2.2 Improve Access to Essential Imaging, Biopsy, Pathology, and Staging Services

- Assess and address gaps in the availability and geographic distribution of essential diagnostic services, including mammography, ultrasound, core biopsy, histopathology, and immunohistochemistry.
- Strengthen pathology and laboratory capacity, including turnaround times for biopsy results. Where geographic or workforce constraints limit local diagnostic capacity, explore telemedicine, teleconsultation, and digital pathology solutions.
- Where full staging is not feasible, promote the use of pragmatic staging tools such as standardised collection of stage-at-diagnosis information.

2.3 Use Indicators to Identify and Correct Diagnostic Bottlenecks

- Track time intervals at key points in the diagnostic pathway to identify where delays occur.
- Use internationally recognised benchmarks as reference points for economy-level monitoring.
- Share diagnostic pathway data with clinical teams and programme managers to support quality improvement.
- Develop, regularly update, and disseminate evidence-based clinical guidelines for breast cancer diagnosis and referral.

ACTION 3: Strengthen Treatment Access and Pathway Completion

Treatment effectiveness depends on whether patients can start and complete recommended care without avoidable interruption. Delays are associated with increased mortality, and outcomes improve with multidisciplinary planning and coordinated delivery.^{102,103}

3.1 Reduce Delays from Diagnosis to Treatment Initiation

- Set targets for maximum acceptable intervals between confirmed diagnosis and treatment initiation, consistent with current international clinical guidelines to ensure timely access to care across member economies.
- Set separate targets for the interval between **surgery and adjuvant systemic therapy initiation**, consistent with the ESMO Early Breast Cancer Clinical Practice Guidelines, which recommend that adjuvant systemic therapy be initiated ideally within 4–6 weeks of surgery and no later than 12 weeks.
- Identify and address the most common sources of treatment delay, which may include surgical scheduling, referral to oncology, financing approvals, or geographic obstacles.
- Establish pre-treatment coordination mechanisms, such as multidisciplinary team meetings or tumour boards.

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3.2 Support Multidisciplinary Planning and Integrated Care Pathways

- Promote multidisciplinary team-based care, including surgery, systemic therapy, radiotherapy, rehabilitation, psychosocial support, and palliative care as appropriate.
- Develop or adopt resource-adapted clinical practice guidelines reflecting each economy's available therapies, workforce, and infrastructure.
- Strengthen access to biomarker testing and molecular subtyping so that treatment plans can be appropriately matched to tumour biology.
- Integrate patient safety into treatment pathway design, including protocols for safe transitions between providers and mechanisms for reporting and learning from treatment-related complications.

3.3 Strengthen Health Financing, Formulary Governance, and Financial Protection

- Develop or strengthen transparent, evidence-based processes for the evaluation and inclusion of breast cancer treatments in local formularies and reimbursement schemes, including health technology assessment (HTA) or equivalent mechanisms.
- Strengthen financial protection mechanisms for breast cancer diagnosis and treatment, with the aim of progressively reducing out-of-pocket expenditure.
- Ensure that essential breast cancer medicines are consistently available across the health system through effective procurement, supply chain management, and stock monitoring.
- Support progressive access to evidence-based therapeutic innovations at a pace consistent with each economy's regulatory, financial, and health-system capacity.
- Address avoidable interruptions caused by insurance gaps, administrative complexity, travel burden, or inadequate patient information.
- Promote efficient and transparent pathways for the evaluation and adoption of evidence-based therapeutic advances, so that improvements in breast cancer treatment can be progressively accessible across all APEC economies.

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ACTION 4: Strengthen Risk-Adapted Treatment, Adjuvant Care and Recurrence Prevention

Early breast cancer — particularly high-risk HR+/HER2– disease — represents one of the most consequential and yet most addressable gaps in cancer care across APEC economies. Breast cancer diagnosed and treated at an early stage carries substantially better survival outcomes and lower treatment costs than disease identified at advanced or metastatic stages. Yet for a significant proportion of patients with high-risk early breast cancer, the risk of recurrence remains meaningful even after completing primary treatment — and recurrence typically means progression to metastatic disease, which is associated with dramatically higher health system costs, prolonged treatment burden, loss of workforce participation, and profound personal and family impact.

Across Asia-Pacific, breast cancer affects patients at an earlier age than in Western settings, with a substantial proportion diagnosed during their peak working and caregiving years. For these patients, a recurrence does not only represent a clinical setback — it means interrupted careers, disrupted families, and long-term economic consequences for households and economies alike. The human and economic case for preventing recurrence through evidence-based adjuvant therapy is therefore particularly compelling in the APEC context.

Evidence-based adjuvant therapies for high-risk HR+/HER2– early breast cancer have demonstrated meaningful and durable reductions in recurrence risk, as reflected in current international clinical practice guidelines, including the latest NCCN (2026) and ESMO Early Breast Cancer Clinical Practice Guidelines. For health systems and policymakers, investing in these therapies at the early stage avoids the far greater costs of treating metastatic disease, preserves patients' quality of life and productivity, and generates measurable long-term returns for health systems and economies. Yet access to adjuvant therapies for high-risk early breast cancer remains highly uneven across APEC economies, shaped by regulatory timelines, reimbursement gaps, HTA capacity constraints, and formulary limitations that delay or prevent patient access to therapies with proven recurrence-prevention benefits.

4.1 Ensure Biomarker Testing and Risk Stratification as a Prerequisite for Adjuvant Treatment Decisions

- Establish or strengthen capacity for systematic biomarker testing — including hormone receptor status (HR), HER2 status, and where feasible genomic profiling — as a standard component of the diagnostic pathway for early breast cancer.
- Develop risk stratification protocols that identify high-risk early breast cancer patients eligible for adjuvant therapy, ensuring that treatment decisions are matched to tumour biology and individual patient risk profile.
- Invest in pathology workforce training and laboratory infrastructure to support consistent and timely biomarker reporting across clinical settings, including in lower-resource facilities.

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4.2 Improve Access to Evidence-Based Adjuvant Therapies for High-Risk Early Breast Cancer

- Review and where appropriate update domestic formularies and reimbursement frameworks to include evidence-based adjuvant therapies for high-risk early breast cancer, informed by current international clinical guidelines including ESMO Early Breast Cancer Clinical Practice Guidelines.
- Strengthen HTA processes and regulatory pathways to reduce the time between international approval and patient access to recurrence-preventing therapies, recognising that delays in access translate directly into preventable recurrences.
- Encourage HTA frameworks to adopt value assessment methodologies that account for the lifetime recurrence prevention benefits of adjuvant therapies — including avoided costs of metastatic disease, workforce productivity gains, and long-term health system savings — rather than relying solely on short-term cost-per-QALY models that may systematically undervalue time-limited prevention interventions. Reimbursement coverage decisions should reflect the full evidence-based indication supported by Phase III clinical trial data, ensuring that high-risk early breast cancer patients across the eligible population can have consistent access to proven therapies.
- Establish and monitor a target for time from surgery to initiation of adjuvant chemotherapy for high-risk early breast cancer patients, with a reference benchmark of no more than 12 weeks — consistent with current international clinical practice guidelines and supported by evidence that delays beyond this threshold are associated with significantly inferior survival outcomes. Economies may set their own targets based on current system capacity, using this benchmark as a directional standard for progressive improvement.^{104,105}
- Develop financing mechanisms — including insurance coverage, subsidy programmes, and public-private partnerships — that protect patients from out-of-pocket costs that may deter initiation or completion of adjuvant treatment.
- Establish monitoring indicators for adjuvant therapy initiation rates, treatment completion, and time from regulatory approval to reimbursement decision, enabling economies to track and improve performance over time.
- Establish a defined, time-bound coverage-decision pathway that connects clinical guideline adoption to reimbursement — specifying which bodies are responsible (health ministry, financing authority, HTA agency), the sequence of steps from guideline inclusion to a funding decision, and an indicative timeline. Where a joint health–finance decision process does not yet exist, economies may begin by convening the relevant authorities around a single early-breast-cancer test case to establish a repeatable route.
- Where value assessment methodologies are used, economies may wish to consider the full clinical continuum — including how coverage decisions at one stage of the disease may interact with access at later stages. Assessments that consider adjuvant and later-stage settings in an integrated way, consistent with each economy's HTA arrangements and priorities, can help capture the full patient benefit of care across the disease course.

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4.3 Integrate Recurrence Prevention into Survivorship and Follow-up Protocols

- Ensure that clinical follow-up protocols for early breast cancer patients explicitly address recurrence surveillance, including scheduled imaging, clinical assessment, and monitoring of adherence to long-term adjuvant therapy such as endocrine therapy.
- Develop patient education and support tools that reinforce the importance of completing adjuvant treatment courses, addressing common challenges to adherence including side effects, cost, and loss to follow-up.
- Promote multidisciplinary team involvement in adjuvant treatment planning and follow-up, ensuring that recurrence prevention is treated as a shared clinical and system responsibility rather than a secondary concern.

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ACTION 5: Strengthen Follow-up, Survivorship, and Continuity of Care

Survivorship is now recognised as an essential component of quality cancer care. People affected by cancer face ongoing psychological, physical, and informational needs. Active clinical surveillance for recurrence, long-term treatment effects, and second neoplasia should be integrated alongside psychosocial support.^{106,107}

5.1 Clarify Responsibilities for Follow-up

- Establish clear protocols for the transition of care from active treatment to follow-up, defining which services are provided by specialists, primary care, and community providers.
- Develop shared care models that delineate roles, timelines, and expected actions of each level of care, including responsibility for recurrence surveillance and monitoring of adherence to long-term adjuvant therapy where applicable.
- Ensure primary care providers are supported with training, referral pathways, and communication tools for long-term follow-up.

5.2 Strengthen Survivorship Planning, Rehabilitation, Psychosocial Support, and Active Clinical Surveillance

- As a practical entry point, economies without an established survivorship programme may begin with a defined minimum follow-up schedule — for example, a standard interval for clinical review and surveillance mammography after treatment completion — and expand toward individualised survivorship care plans as capacity develops.
- Provide each patient completing active treatment with an individualised survivorship care plan, including follow-up schedules, surveillance for recurrence and late effects, and referral to supportive services.
- Expand access to rehabilitation services, including physical therapy, lymphoedema management, and functional recovery support.
- Integrate psychosocial support and mental health services, including screening for distress, anxiety, and depression.
- Include active clinical surveillance for recurrence, long-term adverse effects, and second neoplasia as a routine component.

5.3 Reduce Loss to Follow-up Through Recall Systems, Reminders, and Continuity Tools

- Implement recall and reminder systems to ensure patients attend scheduled follow-up appointments.
- Use digital health tools, patient registries, or health information systems where available to support continuity across providers and over time.
- Address practical and psychosocial challenges contributing to loss to follow-up.

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ACTION 6: Improve the Care Experience for Patients and Families

People-centred care affects whether patients can navigate the pathway, understand their options, adhere to recommended care, and remain engaged over time. Patient navigation has been shown to improve timely access to diagnosis and treatment, especially for disadvantaged populations.^{108,109,110}

6.1 Strengthen Communication and Health Literacy

- Develop clear, accessible, and culturally appropriate information materials at each stage.
- Train healthcare providers in patient-centred communication, shared decision-making, and delivery of difficult news.
- Embed health literacy considerations in programme design, including plain language, visual aids, and multilingual materials.

6.2 Expand Patient Navigation and Practical Support

- Establish or strengthen patient navigation programmes guiding patients through the care pathway.
- Provide practical support, including transportation, accommodation, financial counselling, and workplace reintegration.
- Engage trained volunteers, peer support networks, and patient organisations to complement formal services.

6.3 Promote Respectful, Responsive, and Culturally Appropriate Care Delivery

- Embed cultural competency and respectful care practices in training curricula.
- Establish feedback mechanisms allowing patients and families to contribute to service improvement.
- Ensure care delivery models are responsive to various needs, including indigenous, ethnic minority, rural, and socioeconomically disadvantaged communities.



3. Structure of the APEC Breast Cancer Roadmap 2026–2030

Thematic Area 2: Systemic Enablers for Accessible and Sustainable Pathway Strengthening

ACTION 7: Support Sustainable Health Financing Across the Care Continuum

Effective breast cancer outcomes depend not only on clinical capacity but also on the financing architecture that sustains it. Evidence from across the Asia-Pacific region demonstrates a strong correlation between the strength of health financing systems and the proportion of breast cancers diagnosed at early stage.^{111,112}

7.1 Consider Financing Coverage Across the Full Care Continuum

- Review benefit packages and financing arrangements with a view to progressively covering the full breast cancer care continuum — from health promotion, screening, and early detection through treatment and rehabilitation, to post-remission surveillance, detection of recurrence, and treatment of confirmed recurrence or second primary cancers.
- Consider cost and budget impact analyses as a tool for phased, evidence-based planning.
- Consider mapping current gaps in financing for surveillance visits, follow-up imaging, and diagnostic work-up for suspected recurrence where post-remission follow-up is not yet explicitly covered within benefit packages.

7.2 Support Financial Protection for Patients and Families

- Assess financial barriers that may lead patients to delay, interrupt, or discontinue recommended care, including post-remission follow-up appointments, barriers to diagnostic work-up following abnormal screening results and surveillance tests. Out-of-pocket costs for additional imaging, biopsy, or travel are major contributors to loss to follow-up and should be explicitly considered alongside obstacles affecting post-remission follow-up appointments and surveillance tests.
- Consider financial protection as a continuum rather than a time-limited benefit. Patients who have completed active treatment and entered the remission or survivorship phase remain exposed to significant health expenditure — including costs associated with surveillance imaging, clinical monitoring, and should recurrence occur, re-entry into the diagnostic and treatment pathway. Consider reviewing whether existing financial protection mechanisms adequately cover this post-treatment period and progressively strengthening them through models suited to each economy's health system, whether public insurance, social health insurance, public health programmes, or other appropriate approaches.
- Monitoring, where feasible, the financial impact of breast cancer on households across the full care pathway as a useful indicator of health system performance and financing adequacy.

7.3 Promote Predictability and Continuity of Domestic Investment

- Seek to situate breast cancer financing within broader health investment frameworks to promote predictability and continuity beyond individual programme cycles.
- Promote dialogue between health and finance authorities on medium-term investment planning to help align cancer control priorities with budgetary processes. Explore models for inter-sectoral coordination.

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ACTION 8: Strengthen Service Delivery, Workforce Capacity, and Accessible Care

Breast cancer outcomes are strongly shaped by geography, income, care delivery structure, and other systemic constraints — creating gaps in access and care quality that call for targeted, economy-led responses. Sustained pathway performance depends not only on accessible delivery models but also on a skilled, well-distributed workforce and adequate service infrastructure. This action brings these closely related enablers together: accessible, person-centred care delivery on the one hand, and multidisciplinary workforce capacity and service readiness on the other — recognising that the two are mutually reinforcing and that gaps in either undermine the patient pathway.

8.1 Map and Monitor Where Access Gaps Emerge

- Conduct assessments to identify populations facing the greatest challenges, using available data disaggregated by geography, income, ethnicity, and other dimensions.
- Include accessibility indicators in routine pathway monitoring.

8.2 Tailor Outreach and Service Models for Underserved Populations

- Adapt screening and early detection strategies to the needs of priority populations, including mobile services, community partnerships, and digital outreach tools such as SMS reminders and mobile applications.
- Address language, literacy, and cultural challenges through targeted communication and community health worker programmes.
- Strengthen referral linkages for populations in remote or geographically isolated areas.

8.3 Strengthen Patient-centred Access Across the Care Pathway

- Develop and implement research studies to identify and measure indicators associated with improved breast cancer survival. Engage medical societies, patient support groups representing breast cancer patients, researchers, and other relevant stakeholders throughout the research process; systematically evaluate the results; and work collaboratively with decision-makers to identify gaps, implement evidence-based changes, and continuously improve outcomes and survival indicators.
- Review and streamline the patient journey from screening to treatment, identifying opportunities to reduce steps, simplify administrative processes, shorten waiting times, and bring services closer to communities.
- Explore context-appropriate solutions such as decentralised service delivery models, mobile or outreach services, patient navigation programmes, financial support mechanisms, or digital tools.

Multidisciplinary and adequately resourced service delivery is repeatedly associated with better outcomes. Fragmentation, limited workforce availability, and geographic gaps in service availability remain challenges to pathway performance in many settings.^{113,114,115}

3. Structure of the APEC Breast Cancer Roadmap 2026–2030

8.4 Support Multidisciplinary Workforce Development

- Assess workforce availability and distribution across surgical oncology, medical oncology, radiation oncology, pathology, radiology, nursing, psychosocial support, rehabilitation, and palliative care.
- Provide continuous professional education across the full patient pathway. Consider how education programmes — encompassing primary care providers responsible for early detection and referral, pathologists, surgeons, medical and radiation oncologists, nurses, rehabilitation specialists, and those supporting post-remission care and recurrence management — can be progressively strengthened and extended beyond tertiary centres to include providers in community, rural, and lower-resource settings. Regularly update evolving diagnostic standards, molecular subtyping, subtype-specific treatment protocols, and survivorship best practices.
- Continuously train in multidisciplinary and person-centred care approaches, including competencies in survivorship care planning and the clinical management of recurrence, recognising that such education benefits from regular reinforcement rather than one-time delivery.
- Develop retention strategies for skilled professionals in underserved areas, including task-sharing and task-shifting approaches where appropriate, adapted to workforce and regulatory context.

8.5 Support Service Readiness and Infrastructure Development

- Consider service readiness assessments at each level of the care pathway as a tool for identifying infrastructure and capacity gaps.
- Recognising that digital and AI-enabled tools can strengthen capacity across the pathway — from screening and diagnosis to data and coordination — invest in essential digital health infrastructure such as electronic health records, telemedicine connectivity, and interoperable data systems, in a manner consistent with existing digital health strategies and resource capacity.

8.6 Support Coordination Between Primary, Specialist, and Community-based Services

- Clarify roles, responsibilities, and communication channels between levels of care to reduce fragmentation and improve the patient experience. Consider how existing service structures can be adapted to support clearer coordination, including for the post-remission phase, where responsibility for ongoing clinical surveillance is often shared between specialist and primary care providers.
- Strengthen referral protocols and shared care models as practical tools to support coordination, considering organisations and workforce arrangements.

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ACTION 9: Strengthen Data, Monitoring, and Learning Systems

Policy improvement requires data systems that can track the stage at diagnosis, care bottlenecks, treatment continuity, and gaps over time. Published data on staging, diagnostic timeliness, treatment completion, and post-treatment outcomes remain limited or fragmented across many economies, in some cases reflecting gaps in collection and in others data that is collected but not readily accessible or connected across systems.^{116,117,118,119}

9.1 Consider a Pragmatic Set of Pathway-aligned Indicators

- Identify a small set of feasible indicators informed by internationally recognised benchmarks on stage at diagnosis, diagnostic timeliness, and treatment completion. Where feasible and relevant, include indicators that capture outcomes beyond active treatment — such as post-remission follow-up rates, time to detection of recurrence, and outcomes following confirmed recurrence or second primary cancer — as these reflect the full continuum of care and are increasingly recognised as important measures of health system performance.
- Consider surrogate or proxy indicators as a practical starting point that can be progressively expanded as data systems mature in instances where economy-level data is not yet available.
- Document indicator definitions, data sources, and known limitations to support transparency and comparability across economies.

9.2 Support Registry, Service-delivery, and Programme Data Development

- Invest in population-based cancer registries to strengthen the evidence base for policy and programme improvement. Where population-based registries are not yet established, hospital-based cancer registration using standardised, real-time digital data-collection tools — including mobile Health platforms with automatic data quality checks — may offer a practical and feasible intermediate step.¹²⁰
- Strengthen the utility of existing data by connecting information that is often already collected but held across disconnected systems. Promoting interoperability between screening registries, treatment databases, and cancer registries can improve data utility for routine quality improvement and benchmarking without requiring entirely new infrastructure.

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ACTION 10: Strengthen Multi-stakeholder Coordination and Policy Learning

Implementation is strengthened by coordination across economies, providers, patient support groups, and technical partners. Experience across multiple settings indicates that progress benefits when stakeholder roles are clear, coordination is transparent, and community associations and patient support groups are recognised as a practical implementation partner rather than a peripheral actor.^{121,122,123,124}

10.1 Support Domestic Coordination Across Policy, Financing, and Implementation Actors

- Explore how existing institutional structures — spanning health, finance, education, social protection, and other relevant sectors — can be mobilised to support more coherent breast cancer policy and implementation where economy-level coordination mechanisms do not yet exist or require strengthening.
- Assess the extent to which breast cancer pathway strengthening can be incorporated into existing economy-wide cancer control plans, universal health coverage frameworks in line with economy-wide contexts and priorities, or comparable policy instruments.

10.2 Support Engagement of Patient Support Organisations, and Communities

- Consider how patient support organisations, community groups, caregivers, and local representatives can be meaningfully engaged in the design, implementation, and review of breast cancer policies.
- Community organisations play a valuable role as implementation partners across multiple dimensions of the care pathway — including health promotion, patient navigation, psychosocial support, community outreach, and policy dialogue.

10.3 Use APEC Platforms for Technical Exchange, Peer Learning, and Iterative Refinement

- Leverage APEC Health Working Group meetings, policy dialogues, and technical roundtables to share implementation experiences and approaches across all stages of the breast cancer pathway.
- Voluntary sharing of programme materials, pathway tools, monitoring approaches, and digital health innovations through APEC knowledge-exchange platforms is encouraged.

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10.4 Facilitate Targeted Peer Exchange on Screening Performance and Access to Therapeutic Innovation

Regional peer learning generates the greatest value when it is focused on specific implementation challenges where economies have meaningful experience to share and concrete questions to answer. APEC economies are therefore encouraged to prioritise peer exchange in two areas of particular regional relevance:

- **Screening programme performance:** Economies with established organised screening programmes — including performance monitoring systems, quality assurance mechanisms, and outreach strategies for hard-to-reach populations — are encouraged to share implementation experience with economies that are developing or scaling their screening capacity. Exchange topics may include mammography quality standards, recall rate management, AI-assisted interpretation tools, and strategies for sustaining participation over time.
- **HTA processes and access to therapeutic innovation:** Economies that have developed HTA frameworks or reimbursement pathways for innovative breast cancer therapies — including adjuvant therapies for high-risk early breast cancer — are encouraged to share their methodological approaches, decision-making timelines, and lessons learned with economies building or strengthening their own HTA capacity. This exchange can meaningfully accelerate access to evidence-based therapies across the region by reducing duplication of effort and building on existing regulatory and financing experience.

APEC platforms, including the Health Working Group and bilateral economy partnerships, provide natural venues for this targeted exchange. Economies are encouraged to identify at least one peer learning priority within these two thematic areas as part of their SRAT baseline assessment and implementation planning.

04

Implementation Approach and Flexibility Across Economies



4. Implementation Approach and Flexibility Across Economies

The Roadmap should be implemented in phases. This approach is grounded in the literature, which consistently demonstrates that phased, resource-adapted approaches to health system strengthening produce more sustainable results than simultaneous, wide-scale reform.¹²⁵

4.1 Sequencing of Action

Literature emphasises that programmes often need to begin with diagnosis and referral capacity to manage clinically detectable disease and timely diagnosis, before expanding to early detection and screening models. This is particularly relevant in settings where bottlenecks within diagnosis and referral or treatment access and pathway completion would limit the value of early detection and screening expansion alone.¹²⁶

In the near term (0–18 months), economies may prioritise foundational actions that support shared understanding and practical readiness.^{127,128,129} These could include establishing a common pathway framework aligned with international concepts; identifying a small set of feasible indicators; mapping priority bottlenecks across screening, diagnosis, treatment, and follow-up.^{130,131}

Economies are also encouraged to conduct an initial mapping of current access to adjuvant therapies for high-risk early breast cancer — including existing reimbursement mechanisms, clinical guideline status, and HTA processes underway — as a baseline for identifying priority gaps and informing near-term policy action. As part of this mapping, economies may wish to identify gaps between current reimbursement coverage and internationally recognised clinical guideline recommendations for high-risk early breast cancer, including the ESMO Early Breast Cancer Clinical Practice Guidelines.

As a foundational near-term step, economies are encouraged to complete the SRAT baseline assessment (2026) to establish a starting point, identify priority domains for action, and inform domestic sequencing decisions. The SRAT is designed to be completed by a multi-stakeholder team and can be conducted using available data, expert consultation, and proxy indicators where local data are not yet available. Because the SRAT is built directly from the Roadmap's ten Actions and thematic areas, baseline results map naturally onto the action agenda, helping economies identify which actions are most relevant to their current stage.

In the medium term (18–48 months), economies may voluntarily adapt selected Roadmap actions according to domestic priorities and readiness, building on the foundations established in the near term. This phase may include expanding early detection and screening coverage, strengthening diagnosis and referral coordination and capacity, advancing financial protection mechanisms, and deepening multi-stakeholder engagement. Economies are encouraged to conduct the SRAT mid-term review (2028) to assess progress, identify emerging gaps, and adjust priorities accordingly.^{132,133}

4. Implementation Approach and Flexibility Across Economies

Economies that have completed their baseline mapping are encouraged to initiate or advance policy action on access to evidence-based adjuvant therapies for high-risk early breast cancer — including HTA reviews, reimbursement assessments, or clinical guideline updates referencing current international standards such as NCCN (2026) and ESMO Early Breast Cancer Clinical Practice Guidelines. Economies with existing reimbursement frameworks may focus on monitoring adjuvant therapy initiation rates, establishing adjuvant therapy completion rate tracking for high-risk early breast cancer patients, and implementing or strengthening structured recall systems to support recurrence surveillance in post-treatment follow-up.

During the long term (48–60 months), the focus shifts towards consolidation, sustainability, and knowledge transfer. Institutionalise gains through policy frameworks, sustained financing commitments, and workforce development strategies that extend beyond the 2026–2030 Roadmap period. The SRAT final assessment (2030) provides a structured opportunity to document achievements, lessons learned, and remaining gaps — informing both domestic planning for the next policy cycle and voluntary contributions to APEC’s collective learning. This phase also represents an opportunity for more advanced economies to deepen their role as peer-learning partners, sharing implementation experience through APEC platforms to support continued progress across the region. Economies are encouraged to consolidate progress on early breast cancer adjuvant therapy access — documenting reimbursement coverage, initiation rates, and, where data systems allow, early recurrence outcomes — and to contribute this experience to APEC’s collective peer learning platform. Economies that have achieved sustained access to evidence-based adjuvant therapies for high-risk early breast cancer are encouraged to share their regulatory, HTA, and financing pathways with peer economies through APEC’s regional exchange mechanisms.

4.2 Flexibility Across Economies

Implementation flexibility is essential because APEC economies differ substantially in financing arrangements, service-delivery organisation, workforce capacity, digital maturity, data infrastructure, and baseline pathway performance.^{134,135,136} A first implication is that different starting points should be expected and accommodated.¹³⁷ The SRAT provides a structured but flexible mechanism for economies to map their own starting point across five domains — governance and planning, health literacy and community engagement, early detection and timely diagnosis, treatment and comprehensive care, and survivorship and data systems — and to identify which domains represent the highest priority for near-term action.

Second, the most urgent priority may be strengthening early diagnosis and referral coordination; in others, it may be improving the quality of existing organised screening; and in others, treatment continuity, survivorship, or data capture.^{138,139} The literature is particularly clear that screening should not be treated as the automatic first step in every setting, especially where diagnosis and treatment pathways remain weak.

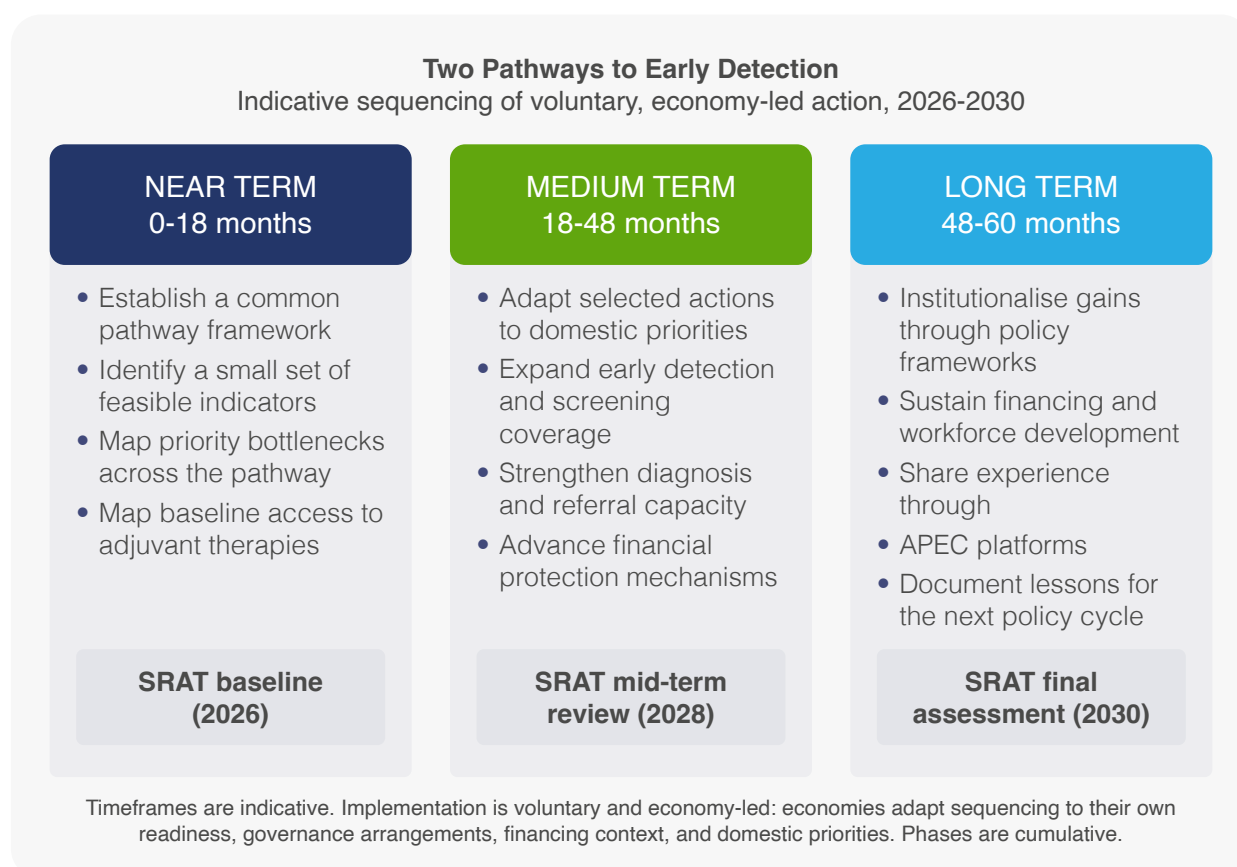
4. Implementation Approach and Flexibility Across Economies

A third implication is that tailoring better access strategies should be treated as part of implementation design, not as an afterthought.^{140,141,142} Breast cancer is increasingly recognised as a global health and access challenge that demands a coordinated policy response.¹⁴³ Evidence consistently demonstrates that stronger health financing systems and broader coverage are associated with improved breast cancer outcomes, reinforcing the value of resilient, community-rooted health systems.¹⁴⁴

4.3 Implementation Support Through APEC Peer Learning

APEC's value in implementation is less about prescribing one model and more about enabling peer learning, policy dialogue, and practical exchange.^{145,146} The Health Working Group's mandate is explicitly linked to improving health and well-being in ways that promote growth and development.¹⁴⁷ The Aotearoa Plan of Action also encourages engagement with a broader range of stakeholders, including NGOs and community organisations, and highlights the use of digital technologies to support participation and institutional effectiveness.¹⁴⁸

In practical terms, the Roadmap can be advanced through a combination of technical roundtables, economy consultations, voluntary sharing of programme materials and pathway tools, peer exchange on implementation bottlenecks, and iterative review at APEC touchpoints.^{149,150} These mechanisms are particularly useful for areas such as referral pathway design, navigation models, survivorship planning, accessibility-focused outreach, digital health applications, and feasible monitoring approaches.^{151,152,153}



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Conclusion and Next Steps

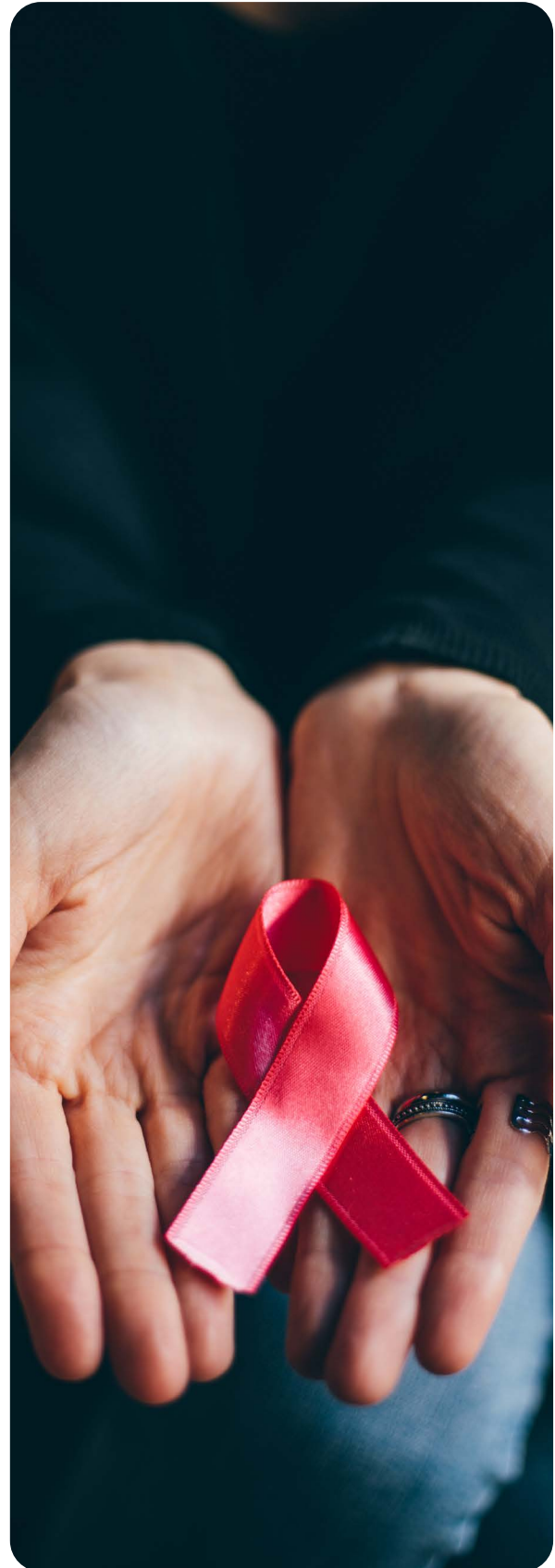


5. Conclusion and Next Steps

The APEC Breast Cancer Roadmap 2026–2030 provides a voluntary, practical, and economy-led framework for strengthening breast cancer care across the region, developed collaboratively with APEC economies and informed by shared regional experience. Its central premise is that outcomes are shaped not only by the availability of individual services, but by how effectively patients and their families can move through the full care pathway — from early detection and screening, through timely diagnosis and referral, treatment access and pathway completion, to follow-up, survivorship, and continuity of care — without avoidable delay, fragmentation, or loss to follow-up.

The Roadmap organises this challenge into two thematic areas and ten Actions, supported by the systemic enablers that underpin sustained progress: accessible care, sustainable financing and financial protection, workforce capacity, data and monitoring systems, and multi-stakeholder coordination. Together, these provide a shared reference point that each economy can adapt to its own starting point, institutional context, and domestic priorities.

A recurring theme across the care continuum is the importance of preventing disease recurrence. For the most common breast cancer subtype, the risk of recurrence persists for years after initial treatment, carrying profound human and economic consequences when early-stage disease progresses to incurable metastatic disease. Yet recurrence remains under-recognised in policy planning, in part because it is inconsistently captured in existing data systems. Strengthening the collection and use of recurrence-related data — including recurrence-free survival — and reflecting



5. Conclusion and Next Steps

this evidence in clinical guidelines and public policy will be essential to ensuring that gains achieved through early detection and treatment are not subsequently lost. This represents both a clinical priority and a measurable investment in the productivity and resilience of APEC economies.

To move from framework to action, the Roadmap is accompanied by the System Readiness Assessment Tool (SRAT) — a voluntary self-assessment, structured across five domains and mapped to the Roadmap's Actions, that enables each economy to identify where it stands, where the greatest opportunities lie, and which practical steps are most feasible in its context. As an immediate next step, economies are invited to complete the SRAT baseline assessment in 2026, with a mid-term review in 2028 and a final assessment in 2030. This cycle allows economies to document progress at their own pace and to contribute to the collective learning that is at the heart of APEC's cooperative approach.

The experiences of China; the Republic of Korea; Peru; Chinese Taipei and Thailand illustrate that progress can be advanced through varied combinations of policy commitment, programme design, data use, and accessible service delivery — and that each economy's experience carries practical lessons for others. Through voluntary action, policy dialogue, and continuous learning — and building on the shared commitment reflected throughout this Roadmap's development — APEC economies are well positioned to strengthen breast cancer care pathways and, in doing so, to advance the health, productivity, and long-term prosperity of the region.



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Acknowledgements



6. Acknowledgements

The APEC Breast Cancer Roadmap, 2026–2030: Strengthening Breast Cancer Care Pathways Across APEC Economies was prepared by the APEC Breast Cancer Roadmap Secretariat, under the guidance of the APEC Health Working Group. Principal authors include Dr. EunKyo Kang, Ms. Viviana Angel Corey, and Ms. Patricia Wu of Access Partnership.

Special thanks are extended to the Project Overseer, Ms. Haehee Lee, Senior Deputy Director, and Ms. Dahyun Kim, Assistant Director, of the Ministry of Health and Welfare of the Republic of Korea. We also gratefully acknowledge the support of Ms. Kathy Ko, Program Director (HWG), APEC Secretariat.

To inform the development of this document, an Expert Advisory Group composed of representatives from government, academia, industry, and civil society provided critical insights and feedback through written inputs and one Virtual Policy Dialogue. Their time, expertise, and collaboration were essential in shaping this Breast Cancer Roadmap together with the System Readiness Assessment Tool (SRAT), which reflects the shared commitment of APEC economies to advancing on Breast Cancer Care.

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Appendix



7. Appendix

7.1 Appendix I: System Readiness Assessment Tool (SRAT)

1. Purpose

This System Readiness Assessment Tool (SRAT) is designed to support APEC member economies in monitoring their own progress, implementing APEC Breast Cancer Roadmap 2026–2030.

The SRAT serves three key functions:

1. **Self-reflection:** Enable each economy to identify strengths, gaps, and opportunities. The assessment is designed to surface areas where targeted action would have the greatest impact on pathway performance.
2. **Progress monitoring over time:** Help each economy track its own trajectory across the Roadmap period (2026–2030), identifying whether targeted actions are having the intended effect. Internationally recognised, evidence-based benchmarks serve as aspirational reference points.
3. **Collective learning:** Facilitate the voluntary sharing of good practices and lessons learned across economies through a standardised, yet flexible, assessment structure.
4. **Outcome orientation:** While many policy monitoring tools focus primarily on whether structures and programmes exist, the SRAT is designed to help economies go further — tracking whether policy actions are translating into measurable improvements in patient outcomes. Economies that choose to monitor outcome-level indicators alongside process indicators will be better positioned to demonstrate the real-world impact of their investments, make evidence-informed decisions about where to focus resources, and contribute meaningfully to APEC's collective learning on what works. The SRAT includes four outcome-oriented indicators that economies may progressively incorporate as their data systems allow: the proportion of breast cancers diagnosed at Stage I or II compared to baseline (C.3); recurrence-free survival rates at 3 and 5 years (E.6a); the percentage of eligible high-risk early breast cancer patients — including those in rural and remote areas — who initiate and complete recommended adjuvant therapy (D.3a, E.6b); and the time elapsed between regulatory approval and reimbursement for evidence-based therapies (D.3b). Together, these indicators offer economies a powerful lens for assessing whether systematic policy action — including access to recurrence-preventing adjuvant therapies for broadly defined high-risk patients — is translating into fewer patients progressing to incurable metastatic disease and generating the long-term health system savings and productivity gains that make this investment compelling.

2. Design

A comprehensive review of leading scorecards, assessment frameworks, and policy monitoring instruments used in public health globally informed the design of this System Readiness Assessment Tool (SRAT).

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The review examined a range of tools and approaches, including the Economist Intelligence Unit's Index of Cancer Preparedness; the NCD Global Scorecard developed by the GRAND South research consortium; peer-reviewed core elements frameworks for economy-led cancer control plans; the ICCP Cancer Control Planning Self-Assessment Tool; Commonwealth Fund Health System Performance Scorecards; and the ANCCA feasibility study on breast cancer monitoring across 21 Asian economies, which highlighted the critical need for proxy indicators in settings with limited cancer surveillance data.

The design of this tool reflects several principles intended to make the assessment process practical and actionable for the economies and teams using it. A graduated maturity-stage framework allows economies to identify where they currently stand and what the logical next step would be. The separation of governance from implementation capacity allows economies to pinpoint whether gaps lie in policy design, execution, or both. The inclusion of proxy indicators ensures that all economies can participate meaningfully, regardless of their current data infrastructure. Finally, the tool is designed for iterative application over the 2026–2030 Roadmap period — what matters most is not the score at any single point, but the progress an economy can document and build upon over successive assessment rounds.

3. Maturity Stage Scoring Framework

Each indicator is scored on a 4-level maturity scale designed to capture where an economy currently stands and identify the most relevant next steps. The scale reflects the reality that economies begin from different starting points and are expected to progress at different rates:

Score	Maturity Stage	Description	What This Means in Practice
0	Stage 0: Not Yet Initiated	No policy, programme, or mechanism exists for this area.	This represents a starting point. The economy may consider this area as a candidate for foundational action under the Roadmap.
1	Stage 1: Foundation Building	Policy or programme exists but is in early stages; limited implementation, coverage, or funding.	Initial steps have been taken. Priority actions focus on establishing structures, securing resources, and building implementation capacity.
2	Stage 2: Developing	Policy or programme is operational with partial coverage; implementation is progressing but not yet meeting reference benchmarks.	The economy is making progress. Priority actions focus on expanding coverage, improving quality, and addressing remaining gaps.
3	Stage 3: Consolidating & Sustaining	Policy or programme is well-established, adequately resourced, achieving or exceeding reference benchmarks, with monitoring and continuous improvement in place.	A strong foundation is in place. Priority actions focus on sustaining progress, improving quality, and sharing experience with APEC peers.

7. Appendix

Domain Maturity Summary

Domain-level scores can be averaged to produce a summary maturity stage for internal planning purposes. This summary is intended to help economies identify which domains represent priority areas for action and which are ready for consolidation or peer sharing.

The Roadmap identifies early breast cancer and recurrence prevention as a cross-cutting policy and economic priority for APEC economies. Preventing recurrence through evidence-based adjuvant therapy for high-risk early breast cancer patients represents one of the most cost-effective interventions available to health systems — avoiding the substantially higher costs of treating metastatic disease, preserving workforce productivity, and generating long-term savings that extend well beyond the health sector. For this reason, each maturity band below includes specific guidance on actions economies can take to strengthen access to adjuvant therapies and recurrence prevention at their current stage of development, ensuring that progress on this dimension is explicitly tracked alongside broader pathway improvements:

Domain Average Score	Maturity Stage	Suggested Focus for Next Steps
0.0 – 1.0	Stage 0–1: Foundation Building	This domain represents a priority area for foundational action. Economies may consider entry-point actions from the Roadmap that are feasible within current capacity and resource constraints. For early breast cancer specifically, foundational actions include mapping current access to adjuvant therapies for high-risk patients and identifying gaps in clinical guidelines, financing arrangements, and HTA processes.
1.1 – 2.0	Stage 1–2: Developing	Progress is underway. Targeted investment, capacity building, and attention to coverage gaps are recommended to consolidate gains and move towards reference benchmarks. For early breast cancer specifically, priority actions include expanding access to adjuvant therapy from narrowly defined to broader high-risk populations, establishing treatment completion tracking, and implementing structured follow-up protocols for recurrence surveillance.
2.1 – <3.0	Stage 2–3: Consolidating	A solid operational base is in place. Actions may focus on improving quality, addressing access gaps and barriers to care, and strengthening monitoring and data systems. For early breast cancer specifically, sustaining actions include monitoring real-world adjuvant therapy initiation and recurrence outcomes, ensuring reimbursement remains aligned with current evidence-based guidelines, and sharing implementation experience with APEC peers.
3.0	Stage 3: Consolidating & Sustaining	A strong and well-monitored foundation is in place. Economies may consider sharing implementation experience through APEC peer learning platforms. For early breast cancer specifically, economies at this stage are encouraged to contribute data on recurrence outcomes and adjuvant therapy access models to APEC's collective learning platform.

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4. Proxy Indicators

Recognising that data availability varies significantly across APEC economies, the SRAT includes proxy indicators for each policy area. These are alternative, more accessible data points that economies with limited cancer-specific surveillance can use to approximate their status. This approach draws from a feasibility study across 21 Asian economies, which found that most lacked local data on key pathway indicators and recommended surrogate measures manageable in economy-specific settings.

Example:

If an economy cannot report the exact percentage of breast cancers diagnosed at stages I–II, it may use as a proxy: the proportion of breast cancers with recorded staging data in the economy cancer registry, or the existence of a functional early detection programme with defined referral expectations.

7. Appendix

5. Assessment Domains and Indicators

The SRAT is structured around five assessment domains. Each domain contains policy areas with specific indicators. The table below provides an overview of the framework and a template for recording self-assessment results. All reference targets are voluntary aspirational benchmarks; no economy is expected to achieve all targets simultaneously.

Domain	Scope	Roadmap Alignment	# Indicators	Score (0–3) Indicators	Maturity Stage	Priority Actions Identified
A. Governance & Planning	Regional plans, institutional frameworks, financing, multi-stakeholder engagement	Actions 8, 9, 10	7			
B. Health Literacy, Awareness & Community Engagement	Risk factor awareness, health literacy, population outreach, patient navigation, community engagement	Actions 1, 6, 8	6			
C. Early Detection & Timely Diagnosis	Screening programmes, quality assurance, timely diagnostics, staging capacity, patient navigation	Actions 1, 2, 8	8			
D. Treatment & Comprehensive Care	Treatment access, MDT care, molecular subtyping, patient safety, treatment completion, adjuvant therapy for high-risk early breast cancer, access to innovation	Actions 3, 4, 8	10			
— D.3a Early Breast Cancer & Recurrence Prevention	Guideline-concordant adjuvant therapy initiation rate for eligible high-risk early breast cancer patients	Action 4.2				
— D.3b HTA & Time to Reimbursement	Time from regulatory approval to reimbursement decision for adjuvant therapies for early breast cancer	Actions 4.2, 7.2				
E. Survivorship, Data Systems & Innovation	Post-remission follow-up, survivorship planning, cancer registries, digital health, monitoring, recurrence prevention outcomes	Actions 4, 9, 10	9			
— E.6a Recurrence-Free Survival Rate	Proportion of early breast cancer patients free of disease recurrence at 3 and 5 years	Actions 4.3, E.1				
— E.6b Adjuvant Therapy Initiation & Completion	Proportion of eligible high-risk patients with documented adjuvant therapy plan and completion	Actions 4.2, D.3a				
OVERALL						

Each indicator includes a description, scoring guidance, reference target (where applicable), suggested proxy, and alignment with the Roadmap's ten Actions. All reference targets are voluntary aspirational benchmarks; no economy is expected to achieve all targets simultaneously.

Sub-indicators D.3a, D.3b, E.6a, and E.6b are priority tracking areas for early breast cancer and recurrence prevention policy.

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Domain A: Governance & Planning

This domain assesses the institutional, policy, and financial foundations for breast cancer control, including the engagement of community organisations and patient support groups as implementation partners. It aligns with Actions 7, 9, and 10 of the Roadmap.

#	Indicator	Reference Target	Proxy Indicator	Roadmap Action
A.1	Regional cancer control plan or strategy including breast cancer An operational economy-level cancer control plan or equivalent policy instrument that includes breast cancer pathway strengthening, covering prevention, early detection, treatment, and survivorship.	Operational economy-level cancer control plans or equivalent in place	Existence of any NCD or cancer policy that references breast cancer	Action 10.1
A.2	Dedicated budget allocation for breast cancer within the local health budget A dedicated budget line or ring-fenced allocation for breast cancer programmes across the full continuum, including post-remission surveillance.	Dedicated budget line item in place	Inclusion of cancer in the general health budget with identifiable allocations	Action 7.3
A.3	Multi-stakeholder coordination mechanism for breast cancer An active coordination body spanning the economy organisation (health, finance, social protection), clinical leaders, community organisations, and other relevant actors, with transparent and structured engagement processes.	Active coordination body with documented processes	Evidence of multi-stakeholder consultations in last 2 years	Action 10.1
A.4	Integration of breast cancer into public financing arrangements or an essential health benefits package Breast cancer diagnosis and treatment—including post-remission follow-up and management of recurrence—are explicitly covered within public financing arrangements, social health insurance schemes, or essential health benefits packages. Coverage should progressively extend to evidence-based adjuvant therapies for high-risk early breast cancer, recognising that investment in recurrence prevention generates long-term savings for health systems and preserves patients' productivity and quality of life.	Full continuum (including post-remission) covered under public financing	Any public financing mechanism covering breast cancer treatment	Action 7.1
A.5	Monitoring and evaluation framework for breast cancer programmes A defined M&E framework that includes pathway-aligned indicators (stage at diagnosis, timeliness, treatment completion) with regular reporting, used for learning and quality improvement rather than ranking. Where data systems allow, the framework should include indicators tracking adjuvant therapy initiation rates and recurrence outcomes for early breast cancer patients.	Published M&E report in last 3 years with pathway-aligned indicators	Any published cancer statistics or programme progress report	Actions 9.1, 9.3
A.6	Engagement in international or regional cooperation on breast cancer Active participation in at least one international or regional initiative on breast cancer (e.g., APEC HWG, bilateral partnerships, regional health initiatives), including voluntary sharing of programme experiences.	Active participation in at least one initiative with documented outputs	Attendance at relevant APEC HWG or related sessions	Action 10.3
A.7	Community organisations and patient support groups are formally engaged in breast cancer policy Patient support groups, community organisations, caregivers, and community representatives are meaningfully engaged in the design, implementation, and review of breast cancer policies, including survivorship and post-remission care.	Structured engagement mechanisms, where feasible, with documented processes	Evidence of any civil society input into cancer policy in last 3 years	Action 10.2

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Domain B: Health Literacy, Awareness & Community Engagement

This domain assesses efforts to increase population-level awareness and health literacy, promote broad access to information, and support community-based engagement across the care pathway. It aligns with Actions 1, 6, and 8 of the Roadmap.

#	Indicator	Reference Target	Proxy Indicator	Roadmap Action
B.1	Local public awareness initiatives on breast cancer signs, symptoms, and screening Economy-supported campaigns or programmes promoting breast health literacy, timely presentation, and screening uptake, including recognition of early warning signs.	Annual campaign with documented reach and messaging strategy	Existence of any government-supported breast health awareness activity	Actions 1.2, 5.1
B.2	Policies addressing modifiable risk factors that include cancer prevention Economy-wide policies covering at least two modifiable breast cancer risk factors (alcohol, physical inactivity, obesity) with explicit linkage to cancer prevention objectives.	At least 2 risk factor policies referencing cancer prevention	Existence of a general NCD risk factor reduction strategy	Action 1.2
B.3	Integration of breast health education into primary healthcare settings Breast cancer risk education, symptom recognition, and referral pathways are included in primary healthcare training curricula and service delivery protocols.	Breast health education included in PHC training curricula and service protocols	Any training programme for PHC workers that includes cancer awareness	Actions 5.1, 8.1
B.4	Community outreach to underserved, rural, and vulnerable populations Documented outreach strategies—including mobile services, community health workers, and digital tools—designed to reach women facing geographic, financial, cultural, or literacy obstacles to breast cancer services.	Documented access-focused outreach programme in operation	Any outreach initiative extending beyond urban health facility catchment areas	Actions 1.2, 6.2
B.5	Patient navigation and practical support services across the care pathway Formal or community-based patient navigation programmes are available to guide patients through the care pathway, with practical support addressing transportation, financial counselling, and workplace reintegration.	Patient navigation programme linked to at least two stages of the care pathway	Existence of any patient support or accompaniment service	Actions 5.2, 2.1
B.6	Culturally appropriate, respectful, and access-sensitive care delivery Care delivery models are responsive to diverse community needs, including indigenous, ethnic minority, rural, and socioeconomically disadvantaged populations; feedback mechanisms allow patients and families to contribute to service improvement.	Cultural competency standards embedded in training curricula and feedback mechanisms in place	Any documented initiative addressing cultural or language barriers to care	Actions 5.3, 6.2

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Domain C: Early Detection & Timely Diagnosis

This domain is aligned with internationally recognised priorities for early detection and timely diagnosis, and assesses the capacity for early detection and prompt diagnostic confirmation. It includes quality assurance for screening programmes, standardised referral pathways, patient navigation, and digital health tools. It aligns primarily with Actions 1, 2, and 8 of the Roadmap.

#	Indicator	Reference Target	Proxy Indicator	Roadmap Action
C.1	Breast cancer screening or early diagnosis programme in place A defined screening programme (organised or opportunistic) or structured early diagnosis approach for symptomatic women, with clearly defined target populations, screening modalities, and referral expectations. Distinguishes between organised screening of asymptomatic populations and early diagnosis of symptomatic disease.	Programme with defined target population, modality, interval, and referral expectations	Availability of mammography or clinical breast examination services in public facilities, with documented referral pathways and defined screening protocols	Action 1.1
C.1 Note: When applying this indicator, organised screening, opportunistic screening, and early diagnosis should not be scored as equivalent. Explicit criteria must be established to differentiate between these approaches, as each operates under distinct programmatic, population, and methodological conditions.				
C.2	Quality assurance (QA) mechanisms for early detection programme Systematic monitoring of programme quality indicators (e.g., recall rate, cancer detection rate, interval cancer rate), peer auditing, and continuing education for interpreting clinicians. Includes structured follow-through protocols for women with abnormal findings. Minimum QA requirements should explicitly include: equipment quality control, reader qualification standards, BI-RADS reporting compliance, and key performance metrics such as recall audit, positive predictive value (PPV), interval cancer rates, and diagnostic resolution.	Documented QA system with regular performance review and clinician feedback	Any monitoring of a key screening programme performance metric	Action 1.1
C.3	Proportion of invasive breast cancers diagnosed at stage I or II Percentage of invasive breast cancers confirmed at early stage (I or II) at diagnosis, as a measure of early detection performance and pathway effectiveness.	≥60% (internationally recognised benchmark)	Proportion of breast cancers with recorded staging data in cancer registry or hospital records	Action 1
C.4	Median time from initial presentation to confirmed diagnosis Time from a woman's first presentation to the healthcare system with a breast concern to confirmed histological or cytological diagnosis, reflecting diagnostic timeliness.	60 days (internationally recognised benchmark)	Number of diagnostic steps or visits required from suspicion to diagnosis; or existence of a defined diagnostic pathway with time targets	Action 2.3
C.4b	Median time from abnormal screening result to diagnostic resolution Time from notification of an abnormal screening result to confirmed histological or cytological diagnosis (or definitive exclusion of malignancy), reflecting the timeliness of the screening follow-up pathway.	60 days (internationally recognised benchmark)	Existence of a defined recall and follow-up protocol with time targets for women with abnormal screening results	Action 2.3
C.5	Availability of essential diagnostic services and staging capacity Availability and geographic accessibility of core diagnostic services including mammography, ultrasound, core biopsy, histopathology, immunohistochemistry, and staging. Where full TNM staging is not feasible, pragmatic staging tools and standardised data collection approaches are promoted as an intermediate step.	Triple assessment (clinical, imaging, pathology) available locally or at accessible referral centres	Availability of pathology services and at least one staging methodology at main referral hospitals	Action 2.2
C.6	Standardised referral pathways and clinical guidelines for breast cancer diagnosis Clear, evidence-based referral triggers from primary care to specialist services, with standardised care pathways and regularly updated clinical guidelines to reduce variation in diagnostic practice.	Referral guidelines published and updated in last 5 years; standardised diagnostic pathway in place	Use of international guidelines (e.g., NCCN, ESMO, or equivalent) as reference at clinical level	Actions 2.1, 2.3
C.7	Trained workforce for breast cancer screening and diagnosis Sufficiently trained professionals available for early detection and diagnosis, including radiologists, pathologists, and screening nurses. Continuing professional education is available beyond tertiary centres, including for providers in community and rural settings.	Workforce meets assessed local needs; continuing education programme in place	Existence of any specialised training programme for breast cancer screening or diagnosis	Action 8.1
C.8	Digital health tools supporting early detection and diagnostic coordination Integration of validated, governed, and monitored digital health tools — including AI-assisted image interpretation, telemedicine, digital referral systems, or teleconsultation platforms — to extend screening and diagnostic capacity, particularly in under-resourced or geographically isolated settings. Implementation should ensure proper human oversight, clinical accountability, and ongoing performance monitoring.	At least one validated digital health tool with defined governance and oversight mechanisms integrated into the screening or diagnostic pathway	Any pilot, plan, or strategy for digital health in breast cancer detection or referral	Actions 1.1, 2.2, 8.2

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Domain D: Treatment & Comprehensive Care

This domain is aligned with internationally recognised standards for comprehensive breast cancer management, and assesses access to evidence-based, multidisciplinary treatment, including biomarker testing, patient safety, financial protection, and progressive access to therapeutic innovations. It aligns primarily with Actions 3, 4, and 8 of the Roadmap.

#	Indicator	Reference Target	Proxy Indicator	Roadmap Action
D.1	Proportion of breast cancer patients completing recommended treatment Percentage of breast cancer patients who complete recommended multimodality treatment without abandonment, reflecting access, continuity, and financial protection across the treatment pathway.	≥80% (internationally recognised benchmark)	Treatment abandonment rate at main referral or treatment centres	Action 3
D.2	Clinical guidelines for breast cancer management, updated and disseminated Evidence-based clinical practice guidelines for breast cancer management—adapted to local context, available therapies, and workforce—published and actively disseminated across all levels of care.	Economy-wide guidelines published and updated in last 5 years; disseminated beyond tertiary centres	Use of international guidelines (e.g., NCCN, ESMO, or equivalent) as clinical reference	Actions 2.3, 3.2
D.3	Access to biomarker testing and molecular subtyping Availability of biomarker testing (hormone receptor status, HER2, Ki-67) and molecular sub-typing to support subtype-informed treatment decisions. Recognises that optimal management of HR+/HER2–, HER2+, and TNBC subtypes requires subtype-specific pathways.	Biomarker testing routinely available at cancer treatment centres	Availability of basic immunohistochemistry (ER, PR, HER2) at referral hospitals	Action 3.2
D.3a	Adjuvant therapy initiation rate for high-risk HR+/HER2– early breast cancer Proportion of patients with high-risk HR+/HER2– early breast cancer who initiate recommended adjuvant therapy following completion of primary treatment, as a measure of access to evidence-based recurrence-prevention treatment.	≥80% of eligible high-risk patients initiating recommended adjuvant therapy	Existence of a transparent process for evaluating evidence-based adjuvant therapies and documented access pathways for their reimbursement or formulary inclusion	Action 4.2

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#	Indicator	Reference Target	Proxy Indicator	Roadmap Action
D.3b	Time from regulatory approval to reimbursement decision for adjuvant therapies for early breast cancer The interval between the date of regulatory approval of an evidence-based adjuvant therapy for early breast cancer and the date of a reimbursement or formulary decision, reflecting the speed at which health systems translate clinical advances into patient access.	Monitor and progressively reduce the time from regulatory approval to reimbursement decision for evidence-based adjuvant therapies for early breast cancer. Economies are encouraged to establish and track this as a formal policy KPI, using the following maturity stages as a directional framework: Stage 0 (Not Yet Initiated): No defined process or timeline exists for reimbursement review of oncology medicines following regulatory approval. Stage 1 (Foundation Building): A reimbursement review process exists but timelines are not formally defined or tracked. Time from approval to reimbursement decision typically exceeds 36 months. Stage 2 (Developing): Timelines are formally defined and tracked. Time from regulatory approval to reimbursement decision is within 18–36 months, consistent with the median across APEC economies. Stage 3 (Consolidating): Time from regulatory approval to reimbursement decision is within 12–18 months, consistent with best-performing OECD health systems. Timelines are published, monitored, and used for accountability and improvement. Stage 4 (Continuously improving): Pathway performance is reviewed and refined on an ongoing basis. Economies draw on their own monitoring data, emerging evidence, and peer learning across APEC to identify opportunities for improvement over time. Care pathways adapt to new clinical evidence and international good practice, at a pace and in a manner consistent with each economy's health system context, priorities, and capacity.	Existence of an HTA or equivalent process with defined timelines for oncology medicines	Actions 4.2, 7.2
D.4	Multidisciplinary team (MDT) approach to breast cancer case management Multidisciplinary tumour boards or case conferences involving surgery, medical oncology, radiation oncology, pathology, and supportive care are institutionalised at treatment centres, including through virtual or hybrid formats where needed.	MDT meetings institutionalised at main treatment centres	Presence of at least two specialties involved in coordinated treatment decision-making	Action 3.2
D.5	Access to essential breast cancer medicines and progressive access to therapeutic innovations Essential breast cancer medicines are included on the local essential medicines list (EML) and consistently available. Transparent, evidence-based processes (e.g., HTA) support progressive access to new therapies at a pace consistent with regulatory and financing capacity.	BC medicines on local EML; HTA or equivalent process for innovation access in place	Availability of at least surgery, chemotherapy, and hormonal therapy in the public sector	Action 3.3

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#	Indicator	Reference Target	Proxy Indicator	Roadmap Action
D.6	Financial protection mechanisms to reduce out-of-pocket costs for breast cancer patients Financial protection covering breast cancer diagnosis, treatment, and post-remission follow-up—through public insurance, social health insurance, subsidised programmes, or other models—aimed at progressively reducing financial constraints and treatment abandonment.	BC treatment and post-remission follow-up covered under public financing or insurance	Any subsidisation, exemption, or support scheme for cancer treatment costs	Actions 7.2, 3.3
D.7	Patient safety integrated into treatment pathway design Protocols for safe care transitions between providers, surveillance of adverse events, mechanisms for reporting and learning from treatment-related complications, and quality standards for treatment delivery are in place.	Documented patient safety protocols at treatment centres; adverse event reporting mechanism active	Any quality standard or adverse event monitoring mechanism in clinical oncology settings	Action 3.2
D.8	Time from confirmed diagnosis to treatment initiation within economy-set targets The economy has established and monitors targets for maximum acceptable time between confirmed diagnosis and treatment initiation, with mechanisms to identify and address common sources of treatment delay.	Economy-set time target established; monitoring data used for quality improvement	Existence of any protocol or guideline specifying referral-to-treatment timelines	Action 3.1

Maturity Stage Guidance for Indicator D.3a — Access to Evidence-Based Adjuvant Therapies for High-Risk Early Breast Cancer

Stage 0 (Not Yet Initiated): Adjuvant treatment options for high-risk early breast cancer are not yet part of economy-level clinical guidelines, financing arrangements, or policy frameworks. This represents a starting point — economies may consider awareness-building and scoping as a first step.

Stage 1 (Foundation Building): The economy has begun to review or assess adjuvant treatment options for high-risk early breast cancer, including through clinical guideline development, HTA scoping, or policy dialogue. Access may be available in limited settings or for specific patient groups.

Stage 2 (Developing): Evidence-based adjuvant therapies for high-risk early breast cancer are referenced in clinical guidelines and some reimbursement or access mechanisms are in place, though coverage may be partial. The economy is working to expand access and reduce obstacles to treatment initiation.

Stage 3 (Consolidating): Evidence-based adjuvant therapies for high-risk early breast cancer are covered under public financing or equivalent mechanisms, consistently available across treatment centres, and adjuvant therapy initiation rates among eligible patients are monitored and used to guide improvement.

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Domain E: Survivorship, Data Systems & Innovation

This domain assesses the enabling environment for long-term outcomes, including post-remission surveillance, survivorship care planning, recall systems, cancer registries, and digital health infrastructure. It aligns primarily with Actions 4, 9, and 10 of the Roadmap.

#	Indicator	Reference Target	Proxy Indicator	Roadmap Action
E.1	Post-remission surveillance protocols and follow-up responsibilities Structured protocols define responsibilities for long-term clinical follow-up after active treatment, including scheduled surveillance imaging — with emphasis on clinical follow-up and mammography as the primary modalities for survivorship surveillance — and specialist consultations. Routine laboratory testing should not be included unless explicitly indicated by clinical guidelines or individual patient circumstances. Clear shared care models between specialist, primary, and community providers are in place. Protocols should explicitly address monitoring of adherence to long-term adjuvant therapy — including endocrine therapy and other evidence-based recurrence-preventing treatments — as a core component of post-remission care for high-risk early breast cancer patients.	Post-remission surveillance protocols in place with defined timelines and provider responsibilities	Any clinical guidance referencing follow-up after breast cancer treatment completion	Actions 4.1, 4.2
E.2	Individualised survivorship care plans (SCPs) and rehabilitation services Each patient completing active treatment receives an individualised survivorship care plan covering follow-up schedule, surveillance for recurrence and late effects, and referral to supportive services. Rehabilitation (physical therapy, lymphoedema management) and psychosocial support are available.	SCPs routinely provided at treatment completion; rehabilitation and psychosocial services accessible	Existence of any patient education or follow-up summary document provided at treatment completion	Action 4.2
E.3	Recall systems and digital tools to reduce loss to follow-up Recall and reminder systems—including patient registries, digital health reminders, and mobile Health tools—are used to maintain contact with patients and ensure attendance at scheduled follow-up appointments, with particular attention to remote and underserved populations.	Active recall and reminder system linked to follow-up scheduling	Any patient tracking mechanism or reminder tool used in post-treatment care	Action 4.3
E.4	Palliative and psychosocial care accessible to breast cancer patients Palliative care services, including pain management and psychosocial support, are integrated into the economy-level health system and accessible to breast cancer patients. Mental health screening (for distress, anxiety, depression) is included in survivorship care.	Palliative care integrated into local health system; psychosocial screening in survivorship care	Availability of oral opioid analgesics or equivalent; existence of any cancer psychological support service	Action 4.2

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#	Indicator	Reference Target	Proxy Indicator	Roadmap Action
E.5	Population-based or hospital-based cancer registry with breast cancer data A cancer registry collecting breast cancer incidence, staging, treatment, and where possible survivorship data. Hospital-based registries with standardised digital data collection are recognised as a feasible intermediate step where population-based registries are not yet established.	Regional or local population-based registry with breast cancer staging and treatment data	Hospital-based cancer registry collecting breast cancer data with standardised definitions	Action 9.2
E.6	Pathway-aligned monitoring indicators in use for quality improvement A defined set of pathway-aligned indicators—including at minimum stage at diagnosis, diagnostic timeliness, and treatment completion—is collected and used for constructive policy dialogue and quality improvement. Post-remission follow-up rates are progressively included. Economies are encouraged to progressively include indicators on adjuvant therapy initiation and completion rates for high-risk early breast cancer, as these reflect the system's capacity to deliver recurrence-preventing care beyond active treatment. *Implementation of this indicator should be adapted to the capacity of each economy's health information system. While population-based cancer registries remain the gold standard, economies that do not yet have comprehensive registry systems are encouraged to use validated proxy indicators and to progressively strengthen their cancer surveillance and data collection systems over time.	least three core pathway indicators (stage at diagnosis, diagnostic timeliness, treatment completion) collected and used for programme improvement; post-remission indicators under development	Any published cancer statistics or programme monitoring report using at least one pathway indicator	Actions 9.1, 9.3
E.7	Digital health infrastructure supporting care coordination, data systems, and innovation Electronic health records, telemedicine connectivity, and interoperable data systems support care coordination and referral tracking. Digital health tools—including mobile Health platforms—are used to support follow-up, data collection, and access to care in remote settings.	Digital health integrated into at least two stages of the breast cancer pathway	Any digital health pilot, strategy, or plan referencing cancer or NCD data systems	Actions 4.3, 8.2, 9.2

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4. Implementation Guidance

4.1 Who Should Conduct the Assessment

The SRAT is designed to be completed by a multi-stakeholder team within each economy. Recommended participants include:

- Representatives from the Ministry of Health (cancer control, NCD, or primary care units).
- Community organisations and patient advocacy groups.
- Economy-wide cancer institutes or registries.
- Health financing or insurance bodies.
- Academic or clinical experts in oncology, surgery, and public health.
- Representatives from primary care, community health, and where relevant, digital health.

This multi-stakeholder approach, consistent with the Roadmap's emphasis on whole-of-society coordination, strengthens the validity and ownership of results. The engagement of community organisations and patient support groups in the assessment process is itself an indicator of good practice (see Indicator A.7).

4.2 Recommended Timeline

Economies are encouraged to conduct the assessment at three points during the Roadmap period. Consistent with the Roadmap's emphasis on early breast cancer and recurrence prevention as a cross-cutting priority, each assessment point below includes specific guidance on actions economies may wish to prioritise in this area alongside their broader pathway assessment:

Baseline assessment (2026): Establish a starting point using available data and expert consultation.

For early breast cancer specifically, economies are encouraged to map current access to adjuvant therapies for high-risk patients, identify gaps between existing reimbursement coverage and current international clinical guideline recommendations, including NCCN (2026) and ESMO Early Breast Cancer Clinical Practice Guidelines, and establish recurrence-free survival as a tracked policy KPI where data systems allow.

Mid-term review (2028): Evaluate progress, identify emerging gaps, and adjust priorities.

For early breast cancer specifically, economies are encouraged to review progress on adjuvant therapy access — including whether reimbursement has expanded toward broader high-risk populations — assess adjuvant therapy completion rate tracking, and evaluate the functioning of structured recall systems for recurrence surveillance.

Final assessment (2030): Document achievements and lessons learned to inform future roadmaps.

For early breast cancer specifically, economies are encouraged to document progress on recurrence-free survival rates, adjuvant therapy access and completion, and time from regulatory approval to reimbursement — and to consider contributing real-world evidence and implementation experience to APEC's peer learning platform.

Note: These are suggested timeframes. Economies may adapt the frequency and timing to their own planning cycles.

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4.3 Data Sources

Economies may draw from multiple data sources, including local cancer registries (where available), health system administrative data, available international datasets estimates and available regional data, programme reports and evaluations, key informant interviews with experts, and facility-level surveys or audits. Where local data are unavailable, the use of proxy indicators and qualitative expert assessments (the 0–3 scoring) ensures that all economies can participate meaningfully.

Hospital-based registries with standardised digital data collection—following approaches demonstrated in resource-constrained settings—are recognised as a feasible intermediate step where population-based registries are not yet established.

4.4 Reporting and Sharing

Consistent with APEC's principles, reporting is entirely voluntary. Economies may choose to share results with the APEC Health Working Group through:

- Voluntary economy reports during HWG meetings.
- Aggregated and anonymised summaries prepared by project leads.
- Bilateral or sub-regional peer-learning exchanges.
- Voluntary sharing of programme materials, pathway tools, and monitoring approaches through APEC knowledge-exchange platforms.
- Voluntary sharing of economy-level implementation case studies documenting how health systems have shifted focus from late-stage cancer care toward early detection and early treatment — including measurable improvements in stage distribution, adjuvant therapy access, and breast cancer outcomes — to support cross-economy learning on what policy approaches generate the greatest impact.

4.5 Sequencing and Flexibility

Implementation of the SRAT should be understood as an iterative process. Different economies may reasonably prioritise different domains based on their starting point, resources, and policy cycle. Economies where early detection and referral remain the critical bottleneck may focus first on Domains C and B; those with more advanced systems may find the greatest value in Domains D and E.

Consistent with the Roadmap's phased implementation approach, economies are not expected to achieve high scores across all domains. Progress over time—from one assessment round to the next—is the primary indicator of the SRAT's value.

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5. Summary Scorecard Template

The following template provides an at-a-glance summary of each economy's self-assessment results for internal planning and optional sharing. The maturity stage column may be completed by referencing the scoring framework in Section 2.2.

Domain	Score (0–3)	Maturity Stage	Priority Actions Identified
A. Governance & Planning			
B. Health Literacy, Awareness & Community Engagement			
C. Early Detection & Timely Diagnosis			
D. Treatment & Comprehensive Care			
E. Survivorship, Data Systems & Innovation			
OVERALL			

Economy Information

Economy:	
Assessment Date:	
Assessment Round:	Baseline (2026) / Mid-term (2028) / Final (2030)
Completed By:	
Key Strengths Identified:	
Priority Gaps Identified:	
Planned Next Steps:	

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6. References and Methodological Sources

This tool draws from the following frameworks and evidence sources:

- APEC Breast Cancer Roadmap 2026–2030. APEC Health Working Group.
- Economist Intelligence Unit. Index of Cancer Preparedness (2019–2020).
- GRAND South NCD Scorecard (2014–2016). 51 indicators across 23 countries. Published in Annals of Global Health.
- Core Elements of National Cancer Control Plans. Lancet Oncology, 2019. DOI: 10.1016/S1470-2045(19)30404-8.
- National Cancer Control Plans: A Global Analysis. Lancet Oncology, 2018. DOI: 10.1016/S1470-2045(18)30681-8.
- Boucheron P et al. Measuring Breast Cancer Pathway Key Performance Indicators in Sub-Saharan Africa. eClinicalMedicine, 2025.
- Coles CE et al. The Lancet Breast Cancer Commission. Lancet, 2024.
- Hanna TP et al. Mortality Due to Cancer Treatment Delay: Systematic Review and Meta-Analysis. BMJ, 2020.
- Commonwealth Fund Health System Performance Scorecards.

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7.2 Appendix II: APEC Economies' Experiences

The following case examples from China; Indonesia; Republic of Korea; Peru; Chinese Taipei; and Thailand are included to illustrate how APEC economies are approaching breast cancer pathway strengthening through different but complementary entry points.

These examples highlight practical lessons that may inform voluntary adaptation across health-system contexts, including: multi-modality screening adapted to population characteristics, rural outreach, and large-scale programme expansion in China, regional-scale screening with demonstrated mortality impact and performance monitoring in the Republic of Korea, policy commitment linked to pathway strengthening and sensitive implementation in Peru, and organised mammography screening with quality assurance and outreach in Chinese Taipei. Taken together, they illustrate that progress can be supported through different combinations of strategies, financing mechanisms, service delivery reform, data use, and targeted efforts to address geographic and socioeconomic obstacles.

China: Scaling Breast Cancer Screening Through Adapted Modalities and Rural Outreach

China illustrates how breast cancer screening can be progressively expanded across a large and geographically varied economy by adapting screening modalities to population characteristics, investing in rural outreach infrastructure, and generating locally relevant evidence to inform programme design. Its experience is relevant for the Roadmap because it highlights both the potential and the complexity of extending organised screening at a population scale in a setting where breast cancer epidemiology, health-system capacity, and service-delivery conditions vary substantially across regions.

China's organised breast cancer screening efforts began with the Cervical Cancer and Breast Cancer Screening Programme for Women—widely known as the “Two Cancer” programme—launched in 2009 to provide free screening for rural women aged 35–64 years, jointly promoted by the National Health Commission and the All-China Women's Federation.¹⁵⁴ The programme has since been expanded across provinces in China. In parallel, the Chinese Breast Cancer Screening Program (CNBCSP), coordinated by the National Clinical Research Centre for Cancer, implemented large-scale screening cohort studies covering more than 1.22 million women across urban and rural settings between 2008 and 2011, providing foundational data on detection rates, tumour characteristics, and population-specific risk factors.¹⁵⁵

A notable feature of China's approach has been the adoption of a multi-modality screening strategy adapted to its population. Recognising that mammography alone has lower sensitivity in younger women with dense breast tissue—a common characteristic among women in China—screening guidelines recommend clinical breast examination combined with breast ultrasound as primary tools, with mammography reserved for high-risk women or those with dense breasts.^{156,157} A multi-centre randomised trial (the MIST programme) comparing ultrasound, mammography, and clinical breast examination demonstrated that combining modalities increased detection rates compared with any single method.

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The Global Burden of Disease programme (GBD 2023) estimates show that China's age-standardised breast cancer mortality rate declined by approximately 36.6% between 1990 and 2023, despite a 28.8% increase in age-standardised incidence over the same period.¹⁵⁸ Institutional data indicate that approximately 73% of breast cancers are now diagnosed at early stage in reporting centres, and 5-year survival has reached 82%.¹⁵⁹ A 2024 systematic review and meta-analysis covering 10.7 million women found that the proportion of early-stage breast cancer among screen-detected cases reached 80.2% in population-based programmes.¹⁶⁰ More recently, prospective studies conducted within the “Two Cancer” programme have explored the use of AI-assisted ultrasound to support screening in community health centres with early results suggesting improved detection of early-stage cancers—an approach that may be relevant where specialist imaging capacity is limited.^{161,162}

At the same time, research from China documents significant implementation challenges that reflect the difficulty of achieving coverage across an economy of 1.4 billion people. A representative survey found that the breast cancer screening rate among women aged 35–64 years was 25.7% in 2015, with rates significantly lower in rural areas (15%) than in urban areas (24.6%), and in western provinces compared with eastern regions.¹⁶³ Studies within the programme have found that screening attendance in rural areas is strongly influenced by whether women receive active notification, the accessibility of screening facilities, and the involvement of community-level health workers and local leaders.¹⁶⁴ Research in Inner Mongolia using the RE-AIM framework identified gaps in follow-up referral systems and limited diagnostic capacity at the primary care level as constraints to translating screening reach into sustained programme effectiveness.¹⁶⁵ The Healthy China Initiative 2019–2030 has set a target of reaching 90% screening coverage by 2030, meaning continued investment in outreach, community-based service delivery, workforce training, and financing mechanisms that extend beyond initial detection to diagnostic confirmation, treatment, and follow-up.

Relevance to the Roadmap: the experience of China illustrates that screening modalities can and should be adapted to population epidemiology and health-system conditions rather than applied uniformly, and that multi-modality and technology-assisted approaches may offer practical solutions where mammography-only strategies are less suitable. It also underscores that scaling from pilot programmes to population-level coverage in a large setting requires sustained attention to access, rural service delivery, community engagement, and the integration of screening within broader care pathways. This experience is most relevant to Action 1 on early detection, Action 8 on service delivery and workforce capacity, and Action 9 on data and monitoring.

Indonesia: Strengthening Diagnosis and Referral Through a economy-wide cancer plan

Indonesia's experience illustrates the challenge of connecting early detection to timely, confirmed diagnosis across a large and geographically varied economy. Breast cancer is the most commonly diagnosed cancer among Indonesian women, yet a majority of patients still present at advanced stages (III or IV), contributing to a five-year survival rate of approximately 55%. Closing the gap between first presentation and confirmed diagnosis is therefore a central priority.

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Through its Cancer Plan 2024–2034, Indonesia has set a structured pathway standard: histopathological diagnosis should be completed within 60 days of an abnormal finding, followed by treatment initiation within a further 30 days. In practice, the interval from suspicion to diagnosis currently ranges from 30 days to six months, reflecting bottlenecks in referral coordination, patient navigation, and diagnostic capacity. The Plan pairs expanded primary-care screening (with over 11,000 primary health centres, of which around 5,000 are equipped with ultrasound) with investment in referral-service transformation across hospital tiers. Indonesia is also exploring AI-assisted ultrasound interpretation to address a shortage of trained sonographers, and is engaging community and faith-based networks to counter stigma-related challenges to timely care.

Relevance to the Roadmap: Indonesia demonstrates how Action 2 (timely diagnosis and referral) depends on the systemic enablers in Action 8 (service delivery and workforce capacity) — screening only improves outcomes when it connects reliably to diagnostic confirmation and treatment. This experience is most relevant to economies working to reduce late-stage presentation by strengthening the diagnostic and referral segment of the pathway.

Republic of Korea: Organised Screening at Economy Scale with Demonstrated Mortality Impact

The Republic of Korea provides an example of organised breast cancer screening at an economy-wide scale, with a clear policy framework, sustained participation growth, and substantial evidence base on outcomes and programme performance. Korea's Cancer Screening Program has invited women aged 40 years and older for biennial mammography since 2002, and the programme has become one of the most well-established organised breast cancer screening platforms in the Asia-Pacific region.

A notable feature of the programme is that it has shown measurable outcome impact, not only process expansion. An economy-wide cohort study with 14 years of follow-up found that organised screening was associated with a 22% net reduction in breast cancer mortality among women aged 40–69 years after adjustment for self-selection bias, with the greatest estimated benefit observed among women aged 45–59 years.¹⁶⁶ The study also highlighted the particular relevance of screening in the context of the Republic of Korea, where breast cancer incidence among women in their forties is relatively high compared with many other economies.

The Republic of Korea is also relevant as an example of programme scale and sustained uptake. Data from the Korean Cancer Screening Survey show that the breast cancer screening rate increased from 33.2% in 2004 to 72.7% in 2023, with the rate remaining above 60% for many years.^{167,168} This growth in uptake shows that organised screening can move from limited participation to broad population reach when supported by a stable programme structure and repeated invitations.

On the other hand, a 2025 analysis of more than 42 million mammography examinations performed between 2009 and 2020 found that key performance indicators were tracked longitudinally. Over that period, the recall rate fell from 17.2% to 11.2%, specificity increased from 82.9% to 89.1%, and the cancer detection rate rose from 1.45 to 3.10 per 1,000 examinations. Regional differences in several performance metrics also narrowed over time.¹⁶⁹

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At the same time, the Republic of Korea experience indicates that even well-established programmes continue to face challenges. Sensitivity and positive predictive value were identified as areas for continued programme attention relative to some international reference ranges, and the growing importance of breast density in programme performance was highlighted as a priority for future development. By 2020, the dense breast rate in the screened population had risen to 55.9%.¹⁷⁰ The experience also highlights access gaps as an ongoing area of attention: while organised screening has contributed to broader population participation and supported a reduction in some income-related differences in access, some degree of socioeconomic variation in uptake remains, indicating scope for continued programme development.

Relevance to the Roadmap: the main learning from the experience of the Republic of Korea is twofold: organised screening at a local scale can achieve broad uptake and measurable mortality benefit, and sustained gains depend on continued attention to programme quality, population characteristics such as breast density, and remaining access gaps. This experience is most relevant to Action 1 on early detection and Action 9 on data and monitoring.

Peru: Policy Commitment, Pathway Strengthening, and Accessibility-Sensitive Implementation

Peru illustrates how breast cancer policy can be advanced through a broader economy-wide cancer-control strategy, while at the same time providing a candid account — grounded in Peru's own commissioned research — of the implementation challenges and access dimensions that continue to shape programme development. Following the introduction of the Cancer Prevention and Control Results-based Budget Program in 2011, Peru approved Plan Esperanza in 2012 as a population-based economy-wide cancer control plan, accompanied by legislation ensuring economy-supported funding for people who would otherwise be unable to access or afford care and treatment. The plan was designed to strengthen prevention, early diagnosis, treatment, and palliative care across the economy, with a financing model structured around disease, geography, and demographic need.¹⁷¹

More recent efforts have translated this policy commitment into screening guidance for primary care. The National Health Institute of Peru recommends biennial clinical breast examination for asymptomatic women aged 40–69 years at low risk, with particular emphasis in settings where access to other screening technologies is limited, and conditionally supports biennial mammography for women aged 50–69 years.¹⁷² This shows an effort to align screening recommendations with resource realities while expanding structured early-detection policy.

At the same time, Peru's own research has documented significant implementation challenges that reflect the complexity of extending screening access across a geographically and socially varied economy.^{173,174,175} An economy-wide pilot study found that approximately 50% of breast cancer cases were diagnosed at stage III/IV, and that 47.1% of women surveyed had not yet undergone screening — a figure that rose to 73.5% among women in rural areas.¹⁷⁶ Fear of results, cost, lack of knowledge about mammography, and practical obstacles were common obstacles.¹⁷⁷ A district-level study found mammography screening rates were higher in districts with greater Human Development Index levels,¹⁷⁸ while a 2024 study found lower uptake among Quechua, Aymara, and Afro-Peruvian women, especially in rural, non-capital, and lower education settings.¹⁷⁹

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Relevance to the Roadmap: the experience of Peru illustrates that policy commitment and formal guidance, while essential foundations, deliver their full potential when accompanied by sustained investment in outreach, patient navigation, culturally and geographically adapted service delivery, and deliberate attention to affordability and local context. Peru's willingness to commission and publish research on implementation gaps — including on ethnic and geographic gaps in service availability — is itself a contribution to the regional evidence base that other economies may find instructive. This experience is most relevant to Action 7 on sustainable health financing and Action 10 on multi-stakeholder coordination and policy learning, with additional lessons for Action 1 on early detection.

Chinese Taipei: Organised Mammography Screening with Quality Assurance and Outreach

The experience of Chinese Taipei illustrates how an organised breast cancer screening programme can be strengthened over time through phased policy expansion, routine performance monitoring, and outreach-based service delivery.¹⁸⁰ Its organised mammography screening programme has offered free biennial mammography since 2004, initially for women aged 50–69 and later expanded to women aged 45–69, and women aged 40 to 44 with a family history, with mobile mammography units introduced in 2010 to improve access beyond hospital-based services.^{181,182} In 2025, the Health Promotion Administration announced a further expansion of eligibility to women aged 40–74, reflecting both demographic change and concern about younger breast cancer cases. This phased approach is particularly relevant for APEC because it shows that organised screening can evolve incrementally while maintaining policy clarity and a population-based orientation.

A notable feature of the Chinese Taipei programme is the degree to which screening has been managed as a performance-driven programme rather than simply offered as a reimbursed service. A large programme evaluation covering 8 million examinations between 2004 and 2020 found that the screened population increased from 3.9% in 2004 to 40% in 2019, while the mean recall rate fell from 9.9% in the earlier period to 8.15% in the later period and the 10-year survival rate increased from 89.7% to 97.3%.¹⁸³ Earlier evaluation also found recall rates within internationally recognised benchmark ranges and linked improvement to peer auditing and continuing education, indicating that quality assurance and professional feedback were built into programme management.¹⁸⁴ For the Roadmap, this suggests that effective screening policy depends not only on eligibility and coverage, but also on sustained attention to programme quality, interpretation standards, and continuous learning.

Chinese Taipei is also relevant as a case of access-oriented programme design.¹⁸⁵ A 2024 study found that use of outreach screening through mobile mammography units increased substantially after implementation of the Cancer Screening Quality Improvement Program, and that uptake was higher among older women, less educated women, and women living in suburban or rural areas — compared to younger, more educated women and those in urban settings within the same screened population following implementation of the Cancer Screening Quality Improvement Program. More recent official data reinforce the programme's value as a tool for earlier detection: according to the Health Promotion Administration, in 2023, among breast cancer cases detected through screening, 68% were diagnosed at stage 0 or stage I. In contrast, among cases not detected through screening, only 34.9% were diagnosed at stage 0 or stage I.¹⁸⁶

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Relevance to the Roadmap: the principal lesson from Chinese Taipei is that organised screening appears most effective when it combines clear population eligibility, robust quality assurance, active performance monitoring, and deliberate outreach to populations less likely to access facility-based services.^{187,188}

Thailand: Guaranteeing Timely Treatment Through Universal Coverage and Pathway Targets

Thailand's experience illustrates how universal coverage, combined with time-bound pathway targets, can address one of the most persistent bottlenecks in breast cancer care: ensuring that women who are diagnosed actually complete timely treatment. Under its "Cancer Anywhere" policy, all residents are entitled to cancer treatment at any capable facility, with costs covered across the population — removing the financial and administrative challenges that often interrupt the treatment journey.

To translate coverage into timely care, Thailand established monitored performance targets across the treatment pathway: surgery within four weeks of a treatment decision, and chemotherapy or radiotherapy within six weeks. Economy-wide clinical breast examination (in place since 1997) and mobile mammography units extend detection into underserved areas, while the treatment guarantees ensure continuity once disease is identified. Thailand attributes a declining breast cancer mortality-to-incidence ratio (approximately 0.22) to sustained government investment across screening and treatment.

Relevance to the Roadmap: Thailand demonstrates how Action 3 (treatment access and pathway completion) and Action 7 (sustainable financing) reinforce one another — universal coverage provides the financial foundation, while pathway targets provide the accountability mechanism that keeps patients moving through to treatment completion. This experience is most relevant to economies seeking to reduce treatment delays and abandonment after diagnosis.

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7.3 Appendix III: Glossary of Key Terms

This glossary provides definitions for key terms used throughout the APEC Breast Cancer Roadmap 2026–2030. Definitions are grounded in peer-reviewed literature and official frameworks consistent with the evidence base of the Roadmap. All definitions are presented in alphabetical order.

Adjuvant Treatment (Adjuvant Therapy)

Treatment given to a patient after primary surgery to reduce the risk of cancer returning. In breast cancer, adjuvant therapies may include endocrine (hormonal) therapy, chemotherapy, targeted therapies such as CDK4/6 inhibitors, or radiotherapy, depending on the subtype and risk profile of the tumour. For high-risk early breast cancer — particularly hormone receptor-positive, HER2-negative (HR+/HER2–) disease — evidence-based adjuvant therapies have demonstrated meaningful reductions in the risk of recurrence, making them a key policy lever for improving long-term outcomes and reducing the long-term costs of cancer care for health systems.

Source: National Cancer Institute. NCI Dictionary of Cancer Terms. “Adjuvant therapy.” Available at: cancer.gov

Biomarker Testing

Laboratory analysis of tumour tissue to identify biological characteristics — such as hormone receptor status (oestrogen receptor [ER], progesterone receptor [PR]), HER2 expression, and proliferation markers — that distinguish breast cancer subtypes and guide treatment selection. Because breast cancer is not a single disease, accurate biomarker profiling is a prerequisite for matching patients to appropriate therapies, including endocrine therapy, HER2-targeted agents, and chemotherapy regimens.

Source: Harbeck, N., et al. “Breast Cancer.” *Nature Reviews Disease Primers* 5 (2019): 66.

Cancer Care Continuum

The full sequence of services, interventions, and support required across a patient’s experience with cancer — from health promotion and risk reduction, through early detection, diagnosis, active treatment, rehabilitation, and survivorship, to palliative and end-of-life care where needed. The continuum is defined not only by clinical episodes but by the transitions between them; sustained outcomes depend on the quality of coordination across all stages, not only within any single one.

Source: Hewitt, M., Greenfield, S., & Stovall, E. (Eds.). *From Cancer Patient to Cancer Survivor: Lost in Transition*. Washington, DC: National Academies Press, 2006.

Early Detection

The identification of breast cancer in individuals who present with symptoms or clinical signs — such as a palpable lump, skin changes, or nipple discharge — before the disease has progressed to an advanced stage. Early detection is distinct from organised population screening: it depends on health literacy, timely care-seeking, clinical recognition, and rapid diagnostic follow-up. In settings where organised screening is not yet feasible, strengthening early detection capacity is frequently the priority entry point for reducing late-stage presentation.

Source: Duggan, C., et al. “The Breast Health Global Initiative 2018 Global Summit on Improving Breast Healthcare through Resource-Stratified Phased Implementation: Methods and Overview.” *Cancer* 126, suppl. 10 (2020): 2339–2352.

7. Appendix

Financial Protection

Policy and financing mechanisms designed to prevent individuals and households from facing catastrophic or impoverishing out-of-pocket expenditure as a result of health care costs. In the breast cancer context, financial protection encompasses coverage of diagnostic services, treatment, medicines, follow-up, and post-remission surveillance under public or social insurance schemes, subsidy programmes, or equivalent instruments. Adequate financial protection is a determinant of treatment initiation, continuity, and completion.

Source: Verhoeven, D., et al. "High-Value Breast Cancer Care within Resource Limitations." *The Oncologist* 29, no. 7 (2024): e899–e909.

Fragmentation

A structural condition in which the components of a health system — providers, facilities, financing streams, information systems, and levels of care — operate without adequate coordination, communication, or shared accountability. In breast cancer, fragmentation typically manifests at the interfaces between services: between community and primary care, between screening and diagnostic confirmation, between diagnosis and treatment initiation, and between active therapy and long-term follow-up. Fragmentation is a root cause of delays, loss to follow-up, and uneven outcomes even in settings with adequate individual service capacity.

Source: Kesson, E.M., et al. "Effects of Multidisciplinary Team Working on Breast Cancer Survival." *BMJ* 344 (2012): e2718.

Health Technology Assessment (HTA)

A multidisciplinary process that uses systematic and explicit methods to evaluate the properties, effects, and value of health technologies — including medicines, devices, diagnostics, and clinical procedures — to inform decisions about their adoption, pricing, and reimbursement. HTA considers clinical effectiveness, safety, cost-effectiveness, and broader societal implications. In the context of this Roadmap, HTA or equivalent mechanisms are identified as tools for supporting transparent, evidence-based governance of breast cancer treatment formularies and progressive access to therapeutic innovations.

Source: O'Rourke, B., Oortwijn, W., & Schuller, T. "The New Definition of Health Technology Assessment: A Milestone in International Collaboration." *International Journal of Technology Assessment in Health Care* 36 (2020): 187–190. (INAHTA/HTAi joint definition)

Loss to Follow-up

The failure of a patient to attend a scheduled appointment, complete a diagnostic work-up, or maintain contact with the health system after an initial clinical encounter, without a documented clinical reason for discontinuation. In breast cancer, loss to follow-up can occur at any point in the pathway — after an abnormal screening result, during the diagnostic process, between diagnosis and treatment initiation, or during long-term survivorship surveillance — and is associated with delayed treatment, disease progression, and avoidable mortality.

Source: Nnaji, C.A., et al. "Timeliness of Diagnosis of Breast and Cervical Cancers and Associated Factors in Low-Income and Middle-Income Countries: A Scoping Review." *BMJ Open* 12, no. 2 (2022): e057685.

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Multidisciplinary Team (MDT)

A coordinated group of health professionals from different specialties — typically including surgical oncology, medical oncology, radiation oncology, pathology, radiology, nursing, and where available, psychosocial support and rehabilitation specialists — who collectively review cases and agree on treatment plans. MDT-based care reduces variation in clinical decision-making, improves adherence to evidence-based protocols, and is associated with improved survival outcomes in breast cancer. In resource-constrained settings, MDT meetings may be conducted in virtual or hybrid formats.

Source: Kesson, E.M., et al. "Effects of Multidisciplinary Team Working on Breast Cancer Survival." *BMJ* 344 (2012): e2718.

Organised Screening

A systematic, population-level programme that proactively invites asymptomatic women within a defined target age group to undergo regular breast imaging — typically mammography — at specified intervals, within a structured framework that includes quality assurance, result notification, recall for abnormal findings, and referral to diagnostic services. Organised screening is distinct from opportunistic or ad hoc imaging. Its effectiveness depends on sufficient population coverage, programme quality, and linkage to timely diagnostic follow-up.

Source: Duggan, C., et al. "The Breast Health Global Initiative 2018 Global Summit on Improving Breast Healthcare through Resource-Stratified Phased Implementation: Methods and Overview." *Cancer* 126, suppl. 10 (2020): 2339–2352.

Pathway

The sequential set of clinical steps, referrals, decisions, and transitions that a patient moves through from initial presentation or detection of a breast concern to confirmed diagnosis, active treatment, and post-treatment follow-up. A well-functioning pathway is characterised by timeliness, coordination, and continuity — women can move from one stage to the next without avoidable delays or gaps in information and accountability. Pathway performance is shaped by both clinical capacity and the system structures that connect individual services.

Source: Afaya, A., et al. "Health System Barriers Influencing Timely Breast Cancer Diagnosis and Treatment among Women in Low and Middle-Income Asian Countries: A Mixed-Methods Systematic Review." *BMC Health Services Research* 22 (2022): 1601.

Patient Navigation

An evidence-based, individualised intervention in which a trained navigator — who may be a clinician, community health worker, or peer — assists patients in overcoming practical, financial, informational, and psychosocial challenges to accessing and completing care. In breast cancer, navigation has been shown to improve timeliness of diagnosis and treatment initiation, reduce loss to follow-up, and support continuity across pathway stages, particularly for women facing geographic, cultural, linguistic, or socioeconomic obstacles.

Source: Chan, R.J., et al. "Patient Navigation across the Cancer Care Continuum: An Overview of Systematic Reviews and Emerging Literature." *CA: A Cancer Journal for Clinicians* 73, no. 6 (2023): 565–589.

7. Appendix

Stage at Diagnosis

A clinical classification of the extent of breast cancer at the time of confirmed diagnosis, typically expressed using the TNM system (Tumour, Node, Metastasis) as stages I through IV. Stage at diagnosis is the primary determinant of treatment complexity, prognosis, and survival: women diagnosed at stages I or II have substantially higher five-year survival rates than those diagnosed at stages III or IV. The proportion of breast cancers diagnosed at early stage (stages I–II) is an internationally recognised indicator of the effectiveness of early detection programmes and health system performance.

Source: Benitez Fuentes, J.D., et al. "Global Stage Distribution of Breast Cancer at Diagnosis: A Systematic Review and Meta-Analysis." *JAMA Oncology* 10, no. 1 (2024): 71–78.

Survivorship

The phase of cancer care that begins at diagnosis and extends through the remainder of a person's life, encompassing the physical, psychological, social, and informational needs that arise during and after active treatment. Survivorship care includes surveillance for recurrence and late effects of treatment, management of long-term side effects, psychosocial support, rehabilitation, and coordination between specialist and primary care. It is now recognised as a distinct and essential component of comprehensive cancer care, requiring structured protocols and clear delineation of provider responsibilities.

Source: Hewitt, M., Greenfield, S., & Stovall, E. (Eds.). *From Cancer Patient to Cancer Survivor: Lost in Transition*. Washington, DC: National Academies Press, 2006; Hart, N.H., et al. "Survivorship Care for People Affected by Advanced or Metastatic Cancer." *Supportive Care in Cancer* 32 (2024): 313.

System Readiness

The capacity of a health system — across governance, financing, workforce, infrastructure, data systems, and community engagement — to implement, sustain, and monitor a defined set of health interventions. In the context of this Roadmap, system readiness is assessed using the System Readiness Assessment Tool (SRAT), which evaluates five domains aligned with the breast cancer care continuum and the ten Roadmap Actions. System readiness is not a fixed threshold but a starting point for phased, economy-led improvement.

Source: APEC Breast Cancer Roadmap 2026–2030. System Readiness Assessment Tool (SRAT). APEC Health Working Group, 2026.

Treatment Abandonment

The failure of a patient to start or complete a recommended course of curative cancer treatment in the absence of a clinical contraindication. Treatment abandonment is distinct from treatment refusal or clinical discontinuation; it typically reflects systemic obstacles — including financial hardship, geographic distance, lack of information, fear of side effects, and insufficient social support — rather than informed patient choice. It is a leading cause of avoidable treatment failure and is used as a key performance indicator in breast cancer monitoring frameworks, with a reference target of no more than 20% of patients failing to complete recommended treatment.

Source: Friedrich, P., et al. "Determinants of Treatment Abandonment in Childhood Cancer: Results from a Global Survey." *PLOS ONE* 11, no. 10 (2016): e0163090; Hanna, T.P., et al. "Mortality Due to Cancer Treatment Delay: Systematic Review and Meta-Analysis." *BMJ* 371 (2020): m4087.

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**Asia-Pacific
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APEC Project: HWG 08 2026S

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