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ACCELERATING INNOVATION ADOPTION CENTER

Scaling Cancer Biomarker Testing

A Strategic Roadmap for Collective Action

FULL STRATEGIC ROADMAP

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This full roadmap presents the complete strategic framework developed by leaders across the cancer care ecosystem at the December 2025 AIAC Scaling Biomarker Testing Workgroup Design Meeting. A companion Roadmap Brief provides a condensed version designed for stakeholder engagement and coalition recruitment.

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Executive Summary

We envision a transformed cancer care system in which **guideline-concordant biomarker testing is a routine, fully reimbursed component of a complete diagnosis**, supported by aligned incentives, streamlined infrastructure, and a high-trust alliance of patients, providers, payers, policymakers, researchers, and industry partners who share a common understanding of the value of precision medicine.

Reaching that future requires closing a gap that persists today. Biomarker testing can match patients with therapies most likely to benefit them, spare patients from ineffective treatments, and improve survival while reducing unnecessary costs. **Yet fewer than half of eligible cancer patients currently receive appropriate testing**[1, 2]**,** and when testing does occur, it is applied inconsistently across care settings, geographies, and populations[3-5]. The science has outpaced implementation, and patients are paying the cost in diminished outcomes.

Closing this gap is a **systems problem**—spanning policy and payment misalignment, fragmented data infrastructure, workflow and care delivery challenges, and gaps in patient and provider engagement—that no single organization can solve alone. This roadmap, developed by leaders across the cancer care ecosystem at the AIAC Design Meeting held December 13-14, 2025, sets out a shared framework for coordinated action: a collective impact approach, six key indicators for measuring progress, four interdependent workstreams, and five foundational activities underway between April and December 2026 to prepare the coalition for full launch.

A companion Roadmap Brief provides a condensed version of this framework for stakeholder engagement and coalition recruitment. Supporting context on the current state of biomarker testing and the barriers to widespread adoption is provided in Appendix D.

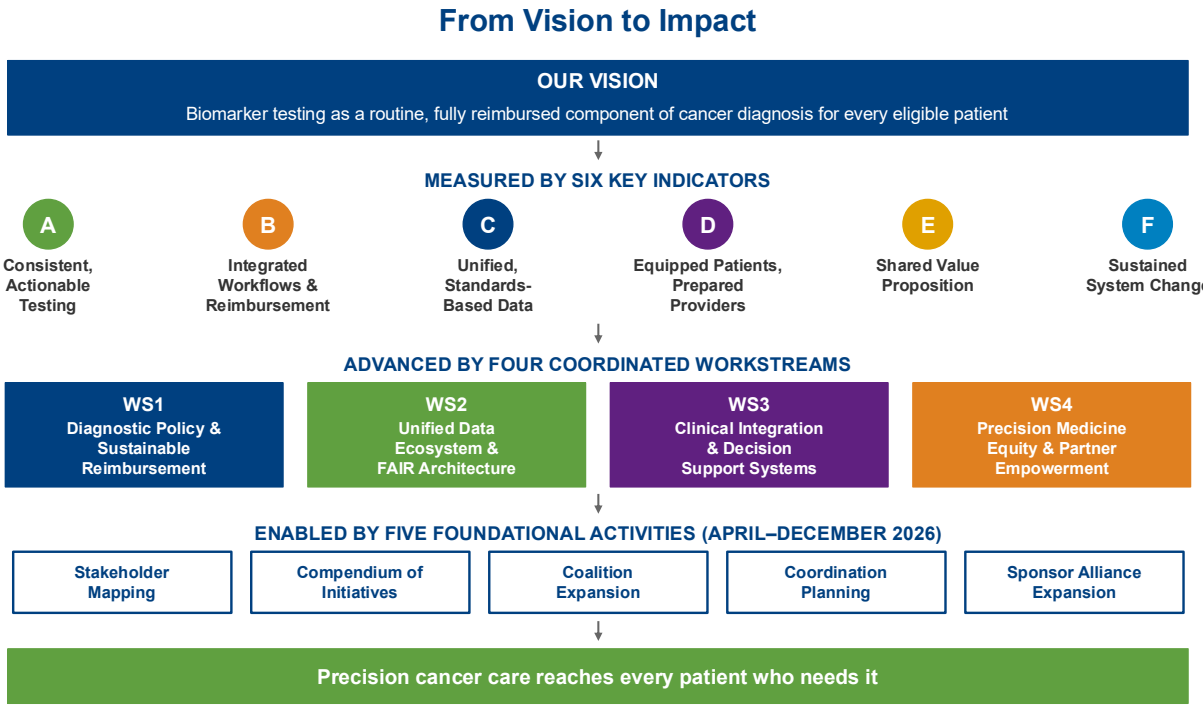

Figure 1. From Vision to Impact: How the Roadmap Fits Together

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Our Vision

We envision a fundamental transformation of the cancer care journey in the United States, where biomarker testing is a routine, expected, and fully reimbursed component of diagnosis and treatment. This future is powered by a high-trust alliance of patients, care providers, researchers, payers, policymakers, and industry partners who share a common understanding of the value proposition of precision medicine. By aligning incentives and streamlining infrastructure, we are creating a self-sustaining model for healthcare evolution—one where innovation is adopted at scale to ensure that every patient's treatment is as unique as their diagnosis.

Commitment to Equity

Universal precision oncology cannot be achieved without an intentional, intersectional focus on equity. Today's biomarker testing disparities are not the result of isolated patient characteristics; they are the result of a healthcare architecture that disproportionately fails systemically excluded and resource-constrained communities[6]. We are committed to dismantling these barriers by embedding equity as a core requirement within each of our four workstreams, and by ensuring that community leaders, patient advocates, and local healthcare champions are full partners in governance and decision-making. Solutions must be rooted in the lived expertise of the communities most impacted by current diagnostic gaps.

Why Collective Impact

The barriers to scaling biomarker testing are interconnected, and so must be the response. Policy change without workflow redesign cannot improve patient outcomes. Data standards without aligned reimbursement cannot drive adoption. Provider education without system-level support cannot sustain behavior change. Progress requires all of these working in concert, which is why no single organization can close the biomarker testing gap alone.

A collective impact approach brings together leaders from across the cancer care ecosystem—health systems, payers, pathology and laboratory professionals, patient advocates, industry, researchers, and policymakers—behind a shared vision, measured by common indicators, and coordinated through a backbone organization. It combines top-down policy change with middle-out peer-to-peer diffusion through clinical champions and bottom-up community engagement. This three-directional approach ensures that policy changes are informed by the real-world experiences of those directly impacted, while local innovations and diverse voices are amplified into national initiatives.

Champions are central to making this approach real. Influential individuals and groups within each segment of the healthcare ecosystem inspire, educate, and mobilize their peers when they are connected to relevant resources and evidence-based practices. The coalition's role is to identify those champions, support them, and build the networks that let their work compound across the field.

In December 2025, AcademyHealth convened 35 leaders representing clinical practice, pathology, patient advocacy, health system transformation, implementation science, industry, and policy to begin this work. The roadmap that follows is the product of that convening: a shared strategic framework for bringing cancer biomarker testing to national scale.

Key Indicators to Support Change

Central to any collective impact initiative is a set of shared measurement systems that align all partners toward the same goal. Indicators will guide workstream implementation, track progress, and

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inform refinements to strategy as conditions evolve. During the December 2025 convening, participants were asked: “It is 2030 and every eligible patient across your region receives guideline-concordant biomarker testing. What had to be true to get there?” Their answers coalesced around six interrelated indicators that together define what success looks like for the coalition.

Table 1 presents each indicator, its definition, and example concepts that can be tracked to measure progress. The metrics are illustrative: workstream members will refine specific measurement approaches as implementation proceeds. Together, these indicators move the field beyond fragmented efforts toward a coordinated, high-trust ecosystem with clear accountability and a shared value proposition. By tracking progress across these domains, the coalition will be positioned to continuously refine its approach, demonstrate return on investment, and ensure that biomarker testing is scaled nationally in a consistent, efficient, and equitable manner.

Table 1. Key Indicators to Support Change and Example Concepts to Measure

	Indicator & Definition	Example Concepts to Measure
A	**Consistent, Actionable Testing** Eligible patients are tested and results inform treatment decisions.	• Testing uptake by patient demographics and care setting • Time from receipt of diagnosis to receipt of biomarker test results • Targeted therapy prescription rates among eligible patients based on pathologic diagnosis and biomarker results • Patient-reported measures of shared decision-making quality • Provider competency in biomarker result interpretation and communication
B	**Integrated Workflows & Reimbursement** Testing is embedded in diagnostic and payment systems.	• Prior authorization approval rates • Automated versus manual test ordering frequencies • Time from order of biomarker test to availability of test results • Reimbursement denials by payor type • Number of systems that have fully integrated biomarker testing workflows in the EHR • Provider administrative burden related to testing processes
C	**Unified, Standards-Based Data** Testing data are findable, accessible, interoperable, and reusable.	• Data completeness rates • Rates of standardized terminology adoption and guideline-concordant testing documentation • Rates of cross-platform data exchange success • Data quality scores • Interoperability compliance • Stakeholder data accessibility satisfaction • Privacy-preserving data sharing rates
D	**Equipped Patients, Prepared Providers** Patients and providers have the knowledge, trust, and support to apply results.	• Patient health literacy related to biomarker testing • Provider knowledge and confidence in test ordering and result interpretation • Patient-reported trust regarding healthcare recommendations • Dissemination of educational resources and decision aids • Patient-reported measures of shared decision-making quality • Patient satisfaction with testing communication • Provider competency and performance
E	**Shared Value Proposition**	• Scores assessing comprehension of value proposition • Cross-organization investment criteria standardization

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	Indicator & Definition	Example Concepts to Measure
	Stakeholders align on clinical, economic, and societal ROI.	• Shared outcome measurement adoption • Levels of collaborative funding initiative participation • Policy alignment indicators focused on social return on investment (SROI) dimensions • Return on investment calculations that consistently incorporate clinical and patient-centric dimensions
F	**Sustained System Change** Incentives, policies, and decision support make concordant testing the default.	• Clinical decision support system utilization • Clinical decision support system effectiveness • Policy alignment across payor and provider organizations • Rates of guideline-concordant testing • Training program completion and retention • Automated workflow trigger success rates • Long-term adherence to biomarker testing protocols

Workstreams

Advancing biomarker testing at scale requires coordinated action across every part of the cancer care ecosystem. The four workstreams below translate the vision into interdependent lines of work. Each addresses a distinct barrier while reinforcing the others: policy, data, workflow, and engagement. Workstream members will lead planning, sequencing, goal-setting, and implementation for their respective workstreams in alignment with existing efforts, recognizing that much of this work has already begun and will require systemic effort across stakeholders.

Table 2 presents each workstream, its focus, and objectives. Information regarding how the six key indicators presented above connect to the four workstreams can be found in Appendix E.

Table 2. Coalition Workstreams at a Glance

WS1. Diagnostic Policy & Sustainable Reimbursement
Focus: Aligning coverage, payment, and quality expectations across diagnostic and treatment pathways to incentivize, rather than discourage, evidence-based biomarker testing. **Objectives:** • Establish guideline-concordant biomarker testing and reporting as a required component of a complete cancer diagnosis. • Ensure that clinical, cost, and equity benefits of appropriate testing are clearly reflected in policy and payment decisions.
WS2. Unified Data Ecosystem & FAIR Architecture
Focus: Creating a data infrastructure that makes biomarker testing information findable, accessible, interoperable, and actionable across the cancer care continuum. **Objectives:** • Enable consistent measurement of testing eligibility, status, and outcomes. • Standardize definitions and reporting. • Reduce reporting burden on health systems. • Improve data interoperability.

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- Facilitate provider and patient access to biomarker test results.

WS3. Clinical Integration & Decision Support Systems

Focus: Embedding biomarker testing seamlessly into routine cancer care by aligning clinical, laboratory, and pathology workflows across the care continuum.

Objectives:

- Streamline and integrate workflows across the cancer care continuum.
- Establish role clarity and reduce silos between pathology, oncology, surgery, and laboratory teams.
- Implement laboratory standing orders or reflex testing protocols with appropriate flexibilities.
- Inform the development of decision support tools to ensure guideline-concordant testing occurs for eligible patients.

WS4. Precision Medicine Equity & Partner Empowerment

Focus: Ensuring biomarker test results are available and meaningfully used at the first treatment discussion, and equipping patients and providers with the knowledge, tools, and support needed to interpret and act on results.

Objectives:

- Address system barriers so that biomarker results are available at the first treatment discussion.
- Equip patients and providers with knowledge, tools, and support to effectively use testing and interpret results.
- Center equity through community partnerships and culturally responsive education across the continuum of care.

WS1. Diagnostic Policy and Sustainable Reimbursement

This workstream establishes the policy and payment foundation for biomarker testing as a required component of a complete cancer diagnosis. It produces the standards and coverage frameworks that downstream workstreams (data infrastructure, clinical integration, and engagement) build upon. Recommended activities are organized into three sub-workstreams: standardization of guidelines and protocols, coverage and payment model alignment, and quality measure development and uptake. The activities within this workstream primarily advance indicators B (Integrated Workflows & Reimbursement), E (Shared Value Proposition), and F (Sustained Systems Change).

Standardization of Guidelines and Protocols

Reducing variation in biomarker testing requires clear, aligned standards for what constitutes appropriate testing and reporting. This sub-workstream harmonizes clinical guidelines, testing protocols, interpretation standards, and reporting across laboratories and care settings, creating a common clinical and administrative language that supports consistent ordering, interpretation, coverage, and use of biomarker results.

- Catalogue and compare existing clinical guidelines to identify inconsistencies and develop cross-guideline consensus statements where evidence supports standardization.
- Establish standardized consensus definitions of diagnostic completeness for biomarker testing by cancer type and stage, including the minimum biomarker set required for clinical decision-making and principles for determining when expanded testing beyond the minimum is clinically justified, and expectations for equitable application across populations and settings to reduce variation in access to testing.*
- Define minimum analytic and clinical validity standards, and evidence expectations, for demonstrating clinical utility of biomarker tests used in routine care.

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- Create a common taxonomy for biomarker test types, panel categories, and testing approaches and standardize required reporting elements to reduce ambiguity in ordering, reporting, and coverage decisions.
- Support existing efforts to address the 14-day rule and clarify ordering physician requirements to reduce administrative barriers to timely and appropriate testing.*
- Evaluate existing clinical guidelines and evidence bases for representativeness across patient populations and care settings and identify priority evidence gaps where current recommendations may insufficiently reflect historically underserved populations.
- Engage definition-setting bodies (including the World Health Organization, the CDC's National Center for Health Statistics, and the European Society for Medical Oncology) to support integration of biomarker-defined cancer types into diagnostic classifications and standards.*

Coverage and Payment Model Alignment

Sustainable scaling depends on coverage and payment policies that reinforce guideline-concordant testing. This sub-workstream aligns coverage with clinical guidelines across public and private payors so that biomarker testing and reporting are consistently supported as a mandatory element of comprehensive cancer diagnosis.

- Identify opportunities to link biomarker testing to existing quality measures, accreditation standards, and value-based payment models (e.g., CMS Oncology Care Model).*
- Assess payor coverage and decision-making practices to establish a clear baseline of how biomarker testing is currently covered, paid for, and operationalized across payors, including use of clinical guidelines for coverage determination, definitions of test categories and panel scope, approaches to evaluating clinical utility for coverage determination, and variation in coverage policies and utilization management practices that may contribute to differential access across populations and care settings.
- Create a consensus framework that formally embeds biomarker testing and reporting into diagnostic completeness, defining the minimum biomarkers and acceptable testing approaches required for a “complete diagnosis” by cancer type and disease stage and specifying expectations for test reporting.*
- Develop recommendations for reimbursement approaches that reduce financial and operational barriers to guideline-concordant biomarker testing in resource-constrained settings, including community oncology and safety-net environments.
- Develop and disseminate standardized coding and reimbursement tools for health systems that align clinical guideline-recommended biomarker testing with appropriate billing codes.
- Engage payors and accrediting bodies to link biomarker testing and reporting to quality measures, accreditation, or value-based models, drawing on lessons learned from registry- and metric-driven change in other specialties.
- Develop and deploy a communications and advocacy strategy to align coverage and payment policies with clinical guidelines so that reimbursement supports appropriate testing rather than incentivizing workarounds or more profitable but less precise treatment options.*

Quality Measure Development and Uptake

Sustained adoption depends on making biomarker testing visible and valued within policy and payment systems. This sub-workstream develops credible, policy-relevant biomarker quality measures and drives their uptake, building the infrastructure that makes appropriate testing measurable, accountable, and financially supported.

- Develop a measure prioritization matrix by identifying relevant biomarker quality measures and assessing which are most meaningful to payors and regulators and can be tied to coverage, payment, or quality reporting.
- Develop equity-focused biomarker quality measures that assess both overall testing performance and variation in testing completion across populations and practice environments
- Develop and deploy a communications and advocacy strategy that demonstrates how biomarker quality measures support evidence-based coverage decisions, appropriate utilization, and value-based care objectives, linked to clinical guidelines, WHO disease classifications, and payment levers.

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- Engage with measure developers to support development of technical specifications, evidence summaries, and feasibility and reliability testing.
- Convene payors to review proposed biomarker quality measures, align on definitions and thresholds, and reduce variability across plans.*

WS2. Unified Data Ecosystem and FAIR Architecture

This workstream builds the data infrastructure that makes biomarker testing information findable, accessible, interoperable, and reusable across the cancer care continuum. It enables real-time insight, quality improvement, and evidence-based decision-making while maintaining patient privacy. Recommended activities are organized into three sub-workstreams: interoperability standards, data liquidity, and advanced analytics infrastructure. The activities within this workstream primarily advance indicators B (Integrated Workflows & Reimbursement), C (Unified, Standards-Based data), and F (Sustained Systems Change).

Interoperability Standards

Consistent data capture and exchange is critical to tracking and improving biomarker testing at scale. This sub-workstream establishes shared data elements, terminology, and computable guideline logic that bridge EMRs, EHRs, laboratories, and registries, aligning with ongoing efforts to standardize oncology data (e.g., mCODE and CODEX).

- Define and standardize core data elements and terminology—including demographic, social, geographic, and care setting variables necessary to monitor equity in testing access, completion, and downstream care—by establishing consensus definitions for key concepts (e.g., eligible patient, reflex testing) and aligning definitions with clinical guidelines, payment policies, and quality measurement needs.*
- Scale, harmonize, and operationalize existing standardized synoptic reporting requirements for biomarker tests for all cancer types, specifying required data elements and formats that support clinical interpretation and downstream data use.
- Identify high-priority guideline recommendations that are suitable for data automation.
- Translate those recommendations into computable formats.
- Pilot interoperable data flows between EMRs and registries to test the feasibility of real-time data exchange and quantify reductions in reporting burden and improvements in data completeness.

Data Liquidity

Secure cross-institutional data sharing requires legal and technical frameworks that maintain privacy while enabling quality improvement and policy oversight beyond individual health systems. This sub-workstream develops the governance and sharing frameworks needed to make that possible.

- Develop standardized data governance and sharing frameworks that define permissible uses of biomarker data for quality improvement, research, and accountability, and clearly define roles, responsibilities, and data stewardship expectations.
- Evaluate policy and legislative pathways to support national-level data standards and reporting requirements if voluntary approaches are ineffective, considering feasibility, resource requirements, and mechanisms to avoid unfunded operational burden on laboratories and health systems with explicit attention to minimizing disproportionate burden on smaller laboratories, community practices, and under-resourced health systems.
- Establish data governance principles that enable appropriate use of shared data to identify disparities, monitor progress toward equitable testing access, and support accountability while maintaining privacy protections.

Advanced Analytics Infrastructure

This sub-workstream builds the technical and analytic foundation needed to curate biomarker data, generate real-world evidence, and support quality improvement across the coalition's work.

- Develop a standardized protocol for data storage, sharing, and management.

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- Develop standardized analytic approaches and reporting templates that routinely stratify biomarker testing measures by patient population and care setting characteristics to identify improvement opportunities.
- Enhance existing CoC-accredited tumor registries by adding standardized, granular biomarker fields and clarifying definitions of eligibility, testing type, and reporting, using the terminology established through the Interoperability Standards sub-workstream.
- Collaborate with EHR and lab vendors to map standard biomarker testing data elements to existing interoperability standards to enable automated data capture.
- Establish a quality improvement sandbox or toolkit that enables health systems to pilot and refine standardized approaches for biomarker data capture, implement validated analytics methodologies, and test reporting workflows in a controlled environment prior to larger deployment.*

WS3. Clinical Integration and Decision Support Systems

This workstream embeds biomarker testing seamlessly into routine cancer care by aligning clinical, laboratory, and pathology workflows. It translates standards and guidelines into executable workflows and automated clinical logic so that appropriate testing happens reliably and at the right time, with minimal burden on clinicians and staff. Recommended activities are organized into two sub-workstreams: workflow optimization and EHR-embedded support. The activities within this workstream primarily advance indicators A (Consistent, Actionable Testing), B (Integrated Workflows & Reimbursement), and F (Sustained Systems Change).

Workflow Optimization

Closing practice gaps in biopsy referral and biomarker test ordering requires redesigning how care teams coordinate and conduct testing. This sub-workstream standardizes clinical, laboratory, and pathology workflows and clarifies ownership of the diagnostic process so that biomarker testing is reliably initiated, coordinated, and completed as part of routine cancer care.

- Develop consensus definitions for key workflow concepts (e.g., reflex testing).
- Develop specifications and best practice frameworks for automated reflex testing protocols.
- Establish disease-specific service lines with clear ownership of the diagnostic process.
- Design, implement, and scale biomarker testing navigator roles staffed by dedicated laboratory professionals or clinical care coordinators to coordinate testing workflows with implementation models adaptable to different resource levels and designed to reduce barriers to completing testing.
- Design standardized team-based biomarker ordering pathways and test nomenclature conventions that simplify order selection, minimize unnecessary data entry, and increase clinician confidence that intended and guideline-concordant tests are being ordered.
- Explore and pilot certificate programs for training laboratory professional navigator roles.
- Define standard criteria and decision logic for triggering biomarker tests at key clinical milestones.
- Create model pathways and order-set templates that health systems can adapt to embed reflex testing into clinical workflows so that appropriate testing occurs automatically when eligibility criteria are met.
- Design and implement standardized patient communication workflows that define when, by whom, and how biomarker testing is explained and incorporate structured approaches to assessing patient understanding and supporting informed decision-making.
- Develop workflows that route cases requiring multidisciplinary review through tumor boards as part of standard care protocols rather than optional consultations.
- Develop implementation guidance that enables standardized biomarker workflows across diverse settings, including community oncology practices, rural systems, and resource-constrained environments.
- Develop and disseminate case studies documenting successful reflex testing workflow implementation across diverse settings (e.g., academic medical centers, community practices, rural settings) to demonstrate adaptable workflow models and reduce duplication of effort.*

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EHR-Embedded Support

Effective clinical decision support reduces provider burden and improves consistency of testing. This sub-workstream integrates EHR-embedded tools that prompt, guide, and streamline biomarker testing at the appropriate stage of the patient journey.

- Design decision support tools that prompt providers to order testing at guideline-defined points in the patient journey, leveraging capabilities to pre-populate appropriate testing orders and clearly distinguish required versus optional tests.
- Develop EHR SmartSets (Epic), PowerPlans (Cerner, Oracle), order sets, or templates that bundle required orders, documentation, and data fields to reduce redundancy in data entry.
- Design automated ordering pathways that trigger recommended biomarker tests based on clinical criteria.
- Design decision support tools and automated workflows that minimize variation in testing initiation attributable to provider, site, or patient factors and support consistent delivery of guideline-concordant care.
- Establish standardized reflex testing protocols that initiate follow-up tests based on initial results.
- Develop decision trees modeled after radiology's automated follow-up recommendation systems.

WS4.Precision Medicine Equity and Partner Empowerment

This workstream ensures that biomarker testing actually improves outcomes for all patients, not just those at well-resourced institutions. It equips patients and providers with the knowledge, tools, and support to interpret and act on test results, and it centers equity by building relationships with trusted community partners and advocacy organizations so that precision medicine reaches every population. Recommended activities are organized into three sub-workstreams: provider training, health literacy, and community outreach. The activities within this workstream primarily advance indicators A (Consistent, Actionable Testing) and D (Equipped Patients, Prepared Providers).

Provider Training

Scaling biomarker testing requires a workforce prepared to order, interpret, and communicate results effectively. This sub-workstream formalizes clinical competencies, develops scalable training models, and embeds biomarker education across the clinical training continuum from professional education through ongoing workforce development to support continuous learning, effective team-based care, and sustained clinical adoption.

- Define comprehensive competency frameworks for clinicians, pathologists, laboratory professionals, and care coordinators related to appropriate testing, interpreting and communicating test results, and team-based care delivery. These frameworks could then be incorporated into certifications.*
- Develop multi-format educational resources including standardized learning modules, lunch-and-learn curricula, and materials that can be embedded into existing training programs.
- Develop provider training resources that teach streamlined lab workflows to minimize time burden and maximize testing efficiency.
- Create integrated team-based care training curricula that combine CME content with collaborative workflows, role definitions, standardized responsibilities, handoff protocols, and communication procedures.
- Partner with medical education and specialty training programs to integrate biomarker testing competencies into undergraduate medical education, residency, fellowship, and continuing professional development pathways.
- Develop train-the-trainer models to support scalable training efforts across the continuum of care.

Health Literacy

Patient understanding is critical to meaningful use of biomarker testing. This sub-workstream develops shared, plain-language terminology and educational resources that frame biomarker

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testing as fundamental to cancer diagnosis and care, and improves patient understanding of complex results to support shared decision-making across diverse populations.

- Convene partners (including patient advocacy organizations, community groups, providers, and patients) to develop shared, plain-language terminology for biomarker testing and results.*
- Test language with diverse patient populations to ensure clarity, relevance, and cultural appropriateness.
- Create accessible and adaptable patient-facing educational materials, integrating them into new patient binders, patient portals, clinic waiting areas, and intake workflows.
- Develop and deploy communications and policy advocacy campaigns in partnership with patient advocacy organizations to reframe biomarker testing as foundational to diagnosis and treatment selection.*

Community Outreach

Reducing disparities in biomarker testing requires strong community outreach and partnership. This sub-workstream builds relationships with trusted community organizations and local champions to adapt education, reinforce consistent messaging, and extend guideline-concordant testing into diverse care settings.

- Identify clinicians, labs, and health systems achieving high rates of guideline-concordant testing to serve as champions and peer change agents.*
- Develop partnerships with trusted voices (including advocacy groups, community organizations, primary care providers, and peer supports) to deliver consistent messaging about biomarker testing and reinforce testing as standard care.*
- Develop partnerships with community organizations to adapt patient education tools and materials for local contexts (rural vs. urban, academic medical center vs. community hospital) and cultural relevance.*

Key Considerations for Workstream Execution

Successful implementation depends on factors beyond the content of each individual workstream. Two sets of considerations shape how the work will unfold in practice: sequencing dependencies among workstreams that will determine phasing, and strategic risks the coalition must actively manage.

Workstream Sequencing and Dependencies

The four workstreams are distinct in scope and ownership but interdependent and mutually reinforcing. Progress will require parallel advancement and continuous coordination, with developments in one workstream shaping the others as evidence emerges, policies evolve, and implementation lessons accumulate. Three sequencing dependencies are particularly important.

Data infrastructure as a cross-cutting foundation

Without a consistent, interoperable data environment, it is not possible to measure progress, identify gaps in testing, assess equity impacts, or generate the evidence needed to support policy, payment, and practice change. The Unified Data Ecosystem and FAIR Architecture workstream formalizes this infrastructure, but specific data requirements will be shaped continuously by policy standards, clinical workflows, and equity priorities emerging from the other workstreams, requiring iterative refinement over time.

Reimbursement alignment and clinical implementation as mutually reinforcing pathways

Health systems are unlikely to adopt new diagnostic pathways, reflex testing protocols, or care coordination models at scale unless payment policies support guideline-concordant testing. Progress in Diagnostic Policy and Sustainable Reimbursement therefore supports the feasibility of clinical integration efforts. However, progress in clinical integration is not gated on payment reform—health systems can pilot workflow redesign, EHR-enabled decision support, navigator models, and reflex testing approaches while broader reimbursement and coverage changes evolve and insights from

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these real-world implementation efforts from Clinical Integration can inform policy refinement and coverage criteria.

Education dependencies and knowledge integration

Provider and patient education depends on clear clinical standards, reliable data, and workflows that support biomarker testing in routine care. At the same time, as patients and providers navigate newly designed protocols, their experiences must flow back to refine guidelines, data infrastructure, and policy approaches. Sustainable impact requires embedding knowledge within clinical workflows, decision support tools, and institutional policies rather than relying on stand-alone training efforts.

Strategic Risk Management

Successful implementation also requires proactive attention to four strategic risks the coalition will actively monitor and manage.

Policy shifts

Policy is a primary enabler of downstream workstream activities. The coalition must monitor regulatory developments, payer policy shifts, and evolving clinical evidence to remain flexible and adaptive as the external landscape changes.

Feasibility and implementation strategy

Workstreams will prioritize incremental, achievable activities that generate near-term value and demonstrate tangible impact, building stakeholder confidence while working toward longer-term systems change. Implementation approaches will be designed with consideration for local practice change capacity and sustainability to support adoption and maintenance of change across diverse care setting.

Strategic alignment and stakeholder engagement

Framing biomarker testing initiatives around established priorities (including quality improvement, reduced administrative burden, and health equity) will strengthen relevance, stakeholder buy-in, and the likelihood of sustained adoption.

Maintaining adaptability

Solutions will be designed with sufficient flexibility to accommodate implementation across diverse cancer care settings and to allow for sequencing adjustments as the work evolves, while maintaining fidelity to the coalition's core objectives.

Foundational Activities

Five foundational activities, underway between April and December 2026, will prepare the coalition for workstream launch. Together they identify key stakeholders across the ecosystem, track relevant work already under way, develop aligned value propositions for different interest-holder groups, and establish the governance and funding structures needed for coordinated, sustained coalition activity. These activities can be completed concurrently and function as standalone outputs, but they are interconnected. Each informs and builds on the others. Together they bridge the gap between the shared vision established in this roadmap and the operational reality needed to execute it.

Table 3. Pre-Workstream Foundational Activities

Stakeholder Mapping
Stakeholder mapping will help identify the relevant stakeholders who should participate in this initiative. This is a key first step which involves (1) identifying key players in the cancer biomarker testing space, (2) assessing their current roles and levels of influence and interest in the landscape,

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and (3) determining their potential contributions to the activities of the Workgroup. The following activities will inform development of a comprehensive stakeholder map:

- Building on learnings from the Design Meeting, conduct background research to confirm the relevant perspectives that should be captured and determine which organizations best represent these viewpoints and are positioned to contribute to the initiative.
- Engage Planning Committee members and Design Meeting participants in conversations to validate background research and surface gaps, priorities, and recommendations.
- Conduct outreach with organizations to understand their role in the cancer biomarker testing landscape as well as their respective level of interest and influence in scaling the practice.
- Develop a Stakeholder Map for the Workgroup, to include candidate coalition roles (champions, amplifiers, etc.) and relevant workstreams.
- Conduct routine maintenance through ongoing monitoring and regular conversations with Workgroup and coalition members (the stakeholder map will be a living resource).

Identify Current Initiatives and Develop a Compendium

Identifying recent and ongoing initiatives advancing guideline-concordant cancer biomarker testing will help the coalition find opportunities for alignment and synergy while avoiding duplicated efforts. Information surfaced during this scan will be housed in a web-based compendium. Proposed activities include:

- Complete a rapid scan of websites and literature to complement the Design Convening pre-work, identifying ongoing and recently completed initiatives relevant to the scale and spread of cancer biomarker testing as a routine practice, focusing on potential opportunities for alignment and synergy. This scan should encompass policy and regulatory, clinical practice, data ecosystem, and patient and provider education and will-building work.
- Engage stakeholders in targeted conversations (concurrent with stakeholder mapping conversations) to surface more detailed insights about the related initiatives.
- Develop an accessible and user-friendly web-based compendium to organize and store information or specific resources surfaced in the scan and discussions.
- As possible, with permissions, make the compendium publicly available so that it can function as a shared resource for stakeholders working in this field.
- Create awareness of the AIAC initiative externally via a summary publication or news release.
- Conduct routine maintenance through ongoing website monitoring and regular conversations with Workgroup and coalition members (as with the stakeholder map, the compendium will be a living resource).

Coalition Expansion

Growing the number of engaged organizations will rely on our ability to develop audience-tailored value propositions for advancing guideline-concordant cancer biomarker testing. Value propositions will articulate the clinical, operational, strategic, financial, and societal benefits for each target audience. They will also communicate the significance of the issue, the urgency to take action, and the sphere and feasibility of audience-specific influence. Together with the stakeholder map, these resources will guide an outreach strategy to engage and recruit additional organizations to join the coalition. In recognition of the limited engagement of stakeholders representing government and regulatory perspectives during the Design Meeting, special attention will be given to regulator engagement. Proposed activities include:

- Use information surfaced from stakeholder conversations to develop initial value frameworks and compelling narratives.

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- Validate and field-test messaging with Planning Committee members, Design Convening participants, and other collaborators.
- Further test key messaging through focus groups to ensure messages resonate with those not previously engaged with the initiative.
- Develop stakeholder-specific pitches and resources that embed key messages for future dissemination and outreach efforts.
- Conduct outreach to additional stakeholder organizations, seek formal endorsement of the roadmap, and recruit participation in workstream efforts.

Coalition Coordination Planning

This set of activities will establish the collective impact backbone model to provide the structural support and strategic oversight necessary for the multi-workstream initiative. This involves (1) defining a clear governance hierarchy to guide decision-making, (2) implementing standardized systems for tracking milestones and personnel capacity within workstreams, and (3) creating formal mechanisms for cross-workstream coordination to ensure alignment and prevent duplication of effort. Proposed activities include:

- Formalize the governance structure by defining the roles, authorities, and meeting cadences for the Steering Committee, Workgroup Leads, and the Coordinating Center.
- Develop a standardized project management framework to track milestones, KPIs, and staff allocation across all workstreams, ensuring a unified view of progress and resource constraints.
- Design a cross-workstream coordination plan that identifies critical intersections where workstream outputs must inform or rely on others.
- Establish a centralized documentation and reporting hub to maintain transparency, house shared resources, and facilitate real-time updates for all coalition members.
- Define clear roles and responsibilities (RACI) for staff and volunteers within each workstream to ensure accountability and prevent burnout during the implementation phase.

Sponsor Alliance Expansion

To ensure long-term sustainability and impact, a dedicated collaborative of funders committed to the initiative's scope and scale is imperative. This work will involve identifying and engaging additional corporate and philanthropic partners to secure the significant investment necessary to activate the four primary workstreams and sustain the backbone coordination of the coalition. Proposed activities include:

- Develop a multi-year resource development plan that outlines the capital requirements for the launch and operation of each collective impact workstream.
- Identify and recruit additional industry and philanthropic partners whose strategic priorities align with the initiative's goals of equitable access and precision medicine scale.
- Conduct targeted outreach and executive briefings with prospective sponsors to articulate the unique ROI and systemic value proposition of joining a unified national effort.
- Formalize participation tiers and recognition frameworks for members of the Sponsor Alliance, ensuring clear expectations for financial contributions and strategic engagement.
- Secure formal funding commitments by Q4 2026 to provide the fiscal runway for the initiative's multi-year implementation phase.

Conclusion

*__Priority Activity:__ Denotes activities flagged by stakeholders as high priority due to potential for impact and/or high readiness of coalition to achieve.

Scientific discovery in precision oncology continues to outpace implementation. Every month that biomarker testing is not performed for an eligible patient is a month in which that patient may receive a less effective treatment, or miss a therapeutic option altogether. The evidence is clear, clinical guidelines are established, and the economic case is compelling. What is needed now is the coordinated will to translate evidence into practice.

This roadmap outlines a coordinated strategy to close the biomarker testing gap by aligning diagnostic policy and reimbursement, strengthening data infrastructure, integrating testing into clinical workflows, and centering patients, providers, and community organizations as partners in implementation. The four workstreams are interdependent. Advancing one without the others will not be sufficient to achieve sustainable, system-wide change.

Success will be defined not simply by increased testing rates, but by the achievement of a cancer care system in which biomarker testing is a routine, expected, and fully reimbursed component of diagnosis for every patient, regardless of where they are treated. Achieving this future will require near-term action, shared accountability, and sustained collaboration across the healthcare ecosystem. It will require every part of that ecosystem to show up for the patients who are counting on precision medicine to work for them.

This roadmap is not a report to be filed. It is a working framework for shared accountability and measurable progress. If your organization is ready to help close the biomarker testing gap, we invite you to join us.

To learn more, contribute to a workstream, or join the coalition, contact AcademyHealth at **innovation.consortium@academyhealth.org**.

About This Initiative

The Accelerating Innovation Adoption Center (AIAC) Scaling Biomarker Testing Initiative is convened by AcademyHealth with support from Pfizer, Eli Lilly, and Johnson & Johnson Innovative Medicine. The initiative emerged from a Design Convening held December 13-14, 2025, which brought together 35 leaders representing clinical practice, pathology, patient advocacy, health system transformation, implementation science, industry, and policy.

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Appendix A. Design Meeting Approach

The Accelerating Innovation Adoption Consortium: Scaling Biomarker Testing Workgroup Design Meeting was held December 13-14, 2025, convening invited participants from diverse settings across the healthcare delivery ecosystem to foster learning, level-setting, and collaboration. The two-day meeting had three primary aims: to define the current state of cancer biomarker testing in the United States, inclusive of reach, disparities, and enabling and restraining forces for widespread adoption; to outline a strategic roadmap to launch and guide the new AIAC Workgroup for bringing cancer biomarker testing to national scale; and to establish participant buy-in for joining the coalition and obtain commitment to specific action items.

Prior to the meeting, participants completed a brief pre-work survey. Survey responses informed meeting content and helped identify initial areas of alignment and divergence across perspectives. Two days of in-person programming featured a mix of plenary presentations, interactive discussions, small-group breakouts, and facilitated synthesis sessions. The agenda is summarized below.

Day 1: Saturday, December 13, 2025

Participant arrival and networking lunch, followed by welcome, opening remarks, housekeeping, and introductions. Plenary sessions grounded participants in the current state of cancer biomarker testing, the barriers to widespread adoption, and the opportunity presented by precision oncology. Small-group breakouts explored enabling and restraining forces across the ecosystem. The day closed with a synthesis session and a group dinner.

Day 2: Sunday, December 14, 2025

Participant arrival and networking breakfast, followed by a recap of Day 1 and a keynote grounding the day in what a successful future state looks like. Plenary and breakout sessions advanced the strategic roadmap, identifying workstreams, indicators, and sequencing dependencies. The meeting closed with commitments to action and next steps.

Appendix B. Planning Committee

Meeting participants included members of a Planning Committee who served as project advisors and helped shape the agenda, participant list, and meeting content.

Name	Title	Organization
Angela Thomas, DrPH, MPH, MBA	Vice President of Healthcare Delivery Research	MedStar Health
Elizabeth Ciemins, PhD, MPH, MA	Senior Vice President, Research and Analytics	American Medical Group Association (AMGA)
Jacqueline Waldrop, MS	Senior Medical Director, Above Brand Oncology	Pfizer
Lisa Dwyer Orr, MPH	Director, Population Health Research	Johnson & Johnson Innovative Medicine
Maureen Doyle-Scharff, PhD	Founder & CEO	Change for Good
Rebeccah Bodine, CHCP	Senior Director, Global Healthcare Improvement	Eli Lilly and Company

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Name	Title	Organization
Rebekah Angove, PhD	Executive Vice President, Research and Evaluation	Patient Advocate Foundation
Sarah Greene, MPH	Senior Advisor	National Academy of Medicine

Appendix C. Meeting Participants

Meeting size was intentionally kept modest to accommodate the full range of perspectives while allowing for meaningful dialogue. Participants represented clinical practice transformation, industry, life sciences technology and testing, patient advocacy, precision oncology, implementation science and other subject matter expertise, and program staff.

Perspective	Participant	Organization
Clinical Practice Transformation	Elizabeth Ciemins, PhD, MPH, MA Liz Ruvalcaba, MSPH	American Medical Group Association (AMGA)
	Jorge J. García, PharmD, MS, MHA, FACHE	Association of Cancer Care Centers (ACCC)
	Ashley Chbeir, RN Kiley McGlauchlen, MS, CCRP	Blessing Hospital
	Angela Thomas, DrPH, MPH, MBA Petros Okubagzi, MD	MedStar Health
	Sandeep Kashyap, MD	Vandalia Health
Industry	Andrew Brown, PhD Fayette Thackston Jacqueline (Jackie) Waldrop, MS	Pfizer
	Jay White, PhD, MPH Rebeccah Bodine, CHCP Sandra (Sandy) Prucka, MS	Eli Lilly and Company
	Lisa Dwyer Orr, MPH Qian (Amy) Shi, PhD, MPH	Johnson & Johnson
Life Sciences Tech / Testing	Robyn Temple Smolkin, PhD, MBA	Association for Molecular Pathology (AMP)
	Lynnette Savaloja Pineault, MBA, MASCP, SCT Suzanne Ziemnik, MEd	American Society for Clinical Pathology (ASCP)
	John Fox, MD, MPH	Illumina / Access to Comprehensive Genomic Profiling (ACGP)
Patients / Advocacy	Anne Gaglioti, MD, MS Robin Yabroff, PhD, MBA, FASCO	American Cancer Society (ACS)
	Maurine (Mo) Stuart	Patient Advocate Foundation (PAF)

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Perspective	Participant	Organization
	Rebekah Angove, PhD	
Precision Oncology	Nikki Martin, MA	LUNGevity
Subject Matter Expert	Catherine (Cait) DesRoches, DrPH, MSc	Harvard University
	Maureen Doyle-Scharff, PhD	Change for Good
	Sarah Greene, MPH	National Academy of Medicine
	Joseph (Joe) Kim, MD, MPH, MBA, FACHE	Q Synthesis
	M. Rashad Massoud, MD, MPH	IQVIA
Program Staff	Annie Bauer, MPH Aaron Caroll, MD, MS Elizabeth Cope, PhD, MPH Marley Catlett, MPH Sarah Hoyt, MPH	AcademyHealth

The following organizations were unable to participate in person due to scheduling conflicts but have been engaged in dialogue and have expressed interest in collaborating: AHIP (America's Health Insurance Plans), American Board of Internal Medicine Foundation, American Society for Clinical Oncology, Blue Cross Blue Shield, Fox Chase, Higher Ambition Leadership Alliance, National Cancer Institute, National Committee for Quality Assurance, and National Comprehensive Cancer Network.

Appendix D. Background and Barriers

This appendix provides supporting context for the roadmap: a brief overview of the current state of cancer biomarker testing in the United States and the interconnected barriers that prevent widespread, equitable adoption. These barriers emerged from the December 2025 Design Meeting and shaped the workstream structure presented in the main body.

The Current State

Cancer is among the leading causes of morbidity, mortality, and healthcare costs in the United States. An estimated 2 million new cancer cases and more than 626,000 cancer-related deaths are projected in 2026[7], and national expenditures for direct medical costs of cancer care are projected to reach approximately $246 billion by 2030[8]. While advances in prevention, screening, and treatment have improved survival, progress has been uneven across cancer types, disease stages, and populations.

Precision oncology, particularly through biomarker testing, offers a powerful opportunity to change this trajectory. By identifying the unique genetic, proteomic, and other biological features of individual tumors, biomarker testing enables clinicians to match patients with targeted therapies most likely to benefit them, spare patients from ineffective treatments, and improve survival while reducing unnecessary costs[9-11]. Biomarker testing is increasingly incorporated into clinical practice guidelines for breast, lung, gynecologic, prostate, colorectal, and other cancers.

Yet recent studies estimate that **fewer than half of eligible cancer patients currently undergo biomarker testing**[1, 2], even for cancers with significant evidence for its value, and testing uptake varies widely by patient socioeconomic status, geographic location, insurance coverage, and local clinical capacity[3-5, 12, 13]. These disparities are not incidental; they are structural.

Barriers to Large-Scale Uptake

Widespread adoption of cancer biomarker testing will require coordinated efforts to address interconnected barriers spanning policy, infrastructure, and care delivery. Barriers identified through the Design Meeting fall into four categories.

Policy and systems misalignment

Wide variation in testing practices stems from unclear and rapidly evolving guidelines, absent standardized eligibility criteria, and confusion over which tests should be ordered by whom and when. Providers may not be incentivized to provide guideline-concordant care due to absent or unlinked biomarker testing quality measures, payor policies that do not clearly define medical necessity, and challenges related to accreditation. Outdated policy mechanisms—notably the CMS Laboratory Date of Service “14-day rule,” which creates a billing incentive to delay biomarker test ordering—further deter testing, resulting in delayed or suboptimal therapy.

Data fragmentation and infrastructure gaps

Critical data points exist within laboratory information systems and electronic medical records, but these systems lack the bidirectional interoperability needed to exchange data meaningfully. Clinically critical laboratory data are trapped in pathology reports rather than delivered as structured, actionable data. Current tracking mechanisms like state and national cancer registries are retrospective by design and often lack granular biomarker fields, leaving patients who should have been tested but were not invisible in the data. Significant variability in EMR functionality across health systems leads to data decay and makes cross-institutional benchmarking nearly impossible.

Workflow and care delivery breakdowns

Confusion over who is responsible for ordering tissue testing, compounded by siloed specialties and regulatory ambiguity, can result in delayed or missed testing. Complex ordering processes, unclear handoffs, and inadequate EMR interfaces can prevent test results from reaching providers in time to

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inform treatment decisions. Inadequate samples, triage delays, and the lack of real-time visibility into test status further contribute to missed or delayed testing. Lack of embedded clinical decision support means biomarker testing competes with other time-sensitive demands on providers.

Engagement and capacity gaps in the patient-provider partnership

Patient perspectives, particularly across diverse demographics, are not systematically incorporated into the design of testing workflows or communication strategies. Patients experience uncertainty about the benefits and urgency of testing, limited awareness that testing is part of the diagnostic process, difficulty interpreting complex results, and stress associated with tissue delays. Variability in trust of healthcare systems and providers further complicates engagement. Providers face skill and training gaps, difficulty navigating rapidly evolving evidence, unclear testing roles within multidisciplinary teams, and limited feedback mechanisms that would otherwise support continuous improvement.

These barriers are interconnected. Progress on any one requires progress on the others. That interdependence is why the Workgroup adopted a collective impact approach, described in the main body of this roadmap.

Appendix E. Heatmap Matrix of Workstreams and Related Key Indicators

The matrix below illustrates how each sub-workstream contributes to advancing the six key indicators. It demonstrates the relative strength of alignment between workstream activities and the intended outcomes represented by each indicator.

The following legend may be used to interpret the matrix:

- Dark blue: The indicator is a primary area of influence for the sub-workstream and represents a core mechanism through which the sub-workstream is expected to drive progress.
- Light blue: The indicator is a secondary area of influence for the sub-workstream and is expected to be advanced indirectly or as a supporting outcome.
- White: The indicator has minimal or indirect alignment with the sub-workstream and is not expected to be a major pathway of impact.

	A. Consistent, Actionable Testing	B. Integrated Workflows & Reimbursement	C. Unified, Standards-Based Data	D. Equipped Patients, Prepared Providers	E. Shared Value Proposition	F. Sustained Systems Change
WS1. Diagnostic Policy & Sustainable Reimbursement						
1A. Standardization of Guidelines and Protocols						
1B. Coverage & Payment Model Alignment						
1C. Quality Measures						
WS2. Unified Data Ecosystem & FAIR Architecture						
2A. Interoperability Standards						
2B. Data Liquidity						
2C. Advanced Analytics Infrastructure						
WS3. Clinical Integration & Decision Support Systems						
3A. Workflow Optimization						
3B. EHR Decision Support						
WS4. Precision Medicine Equity & Partner Empowerment						
Provider Training						
Health Literacy						

Community Outreach						

References

1. Bhandari NR, Hess L, He D, Peterson P. Biomarker Testing, Treatment, and Outcomes in Patients with Advanced/Metastatic Non-Small Cell Lung Cancer Using a Real-World Database. Official Journal of the National Comprehensive Cancer Network. 2023;21(9). Epub September 2023. doi: 10.6004/jnccn.2023.7039.
2. Byfield SD, Bapat B, Becker L. Biomarker Testing Approaches, Treatment Selection, and Cost of Care Among Adults With Advanced Cancer. Genetics and Genomics. 2025;8(7). Epub July 11, 2025. doi: 10.1001/jamanetworkopen.2025.19963.
3. Sabbagh S, Herran M, Hijazi A. Biomarker Testing Disparities in Metastatic Colorectal Cancer. Oncology. 2024;7(7). doi: 10.1001/jamanetworkopen.2024.19142.
4. Norris RP, Dew R, Sharp L, Greystroke A, Rice S, Johnell K, et al. Are there socio-economic inequalities in utilization of predictive biomarker tests and biological and precision therapies for cancer? A systematic review and meta-analysis. BMC Med. 2020;18(1). doi: 10.1186/s12916-020-01753-0. PubMed Central PMCID: PMC7583194.
5. Network CA. Survey Findings Summary: Understanding Provider Utilization of Cancer Biomarker Testing Across Cancers. 2021 Available from: https://www.fightcancer.org/sites/default/files/national_documents/provider_utilization_of_biomarker_testing_polling_memo_dec_2021.pdf
6. Dennis M, Abrahami D, Vieira MC, Benjumea D, Boyd M, Shao A, et al. Real-World Analysis of Disparities in Biomarker Testing and Use of Recommended Targeted Therapies in Metastatic Non–Small Cell Lung Cancer in the United States. Precision Oncology. 2025;9. doi: 10.1200/PO-24-00449.
7. Siegel R, Kratzer T, Wagle NS, Sung H, Jemal A. Cancer statistics, 2026. CA Cancer J Clin. 2026;1(76). Epub Feb. doi: 10.3322/caac.70043. PubMed Central PMCID: PMC12798275.
8. Mariotto A, Enewold L, Zhao J, Zeruto C, Yabroff R. Medical Care Costs Associated with Cancer Survivorship in the United States. Cancer Epidemiology, Biomarkers & Prevention. 2020;29(7):1304-12. doi: 10.1158/1055-9965.EPI-19-1534.
9. Craig L, Phillips J, Moses H. Supportive Policy Environment for Biomarker Tests for Molecularly Targeted Therapies. Biomarker Tests for Molecularly Targeted Therapies: Key to Unlocking Precision Medicine2016. p. 93-4.
10. Moore D, Guinigundo A. Revolutionizing Cancer Treatment: Harnessing the Power of Biomarkers to Improve Patient Outcomes. Jorunal of Advanced Practicioner in Oncology. 2023;14:4-8. Epub April 1, 2023. doi: 10.6004/jadpro.2023.14.3.15. PubMed Central PMCID: PMC10190803.
11. Nakamura Y, Ozaki H, Ueno M, Komatsu Y, Yuki S, Esaki T, et al. Targeted therapy guided by circulating tumor DNA analysis in advanced gastrointestinal tumors. Nature Medicine. 2025;31:165-75. doi: 10.1038/s41591-024-03244-8.
12. John A, Yang B, Shah R. Clinical Impact of Adherence to NCCN Guidelines for Biomarker Testing and First-Line Treatment in Advanced Non-Small Cell Lung Cancer (aNSCLC) Using Real-World Electronic Health Record Data. Advanced in Therapy. 2023;38:1552-66. Epub February 4, 2021. doi: 10.1007/s12325-020-01617-2.
13. Vetsch J, Wakefield C, Techakesari P, Warby M, Ziegler D, O'Brien T, et al. Healthcare professionals' attitudes toward cancer precision medicine: A systematic review. Seminars in Oncology. 2019;46(3):291-303. doi: 10.1053/j.seminoncol.2019.05.001.

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