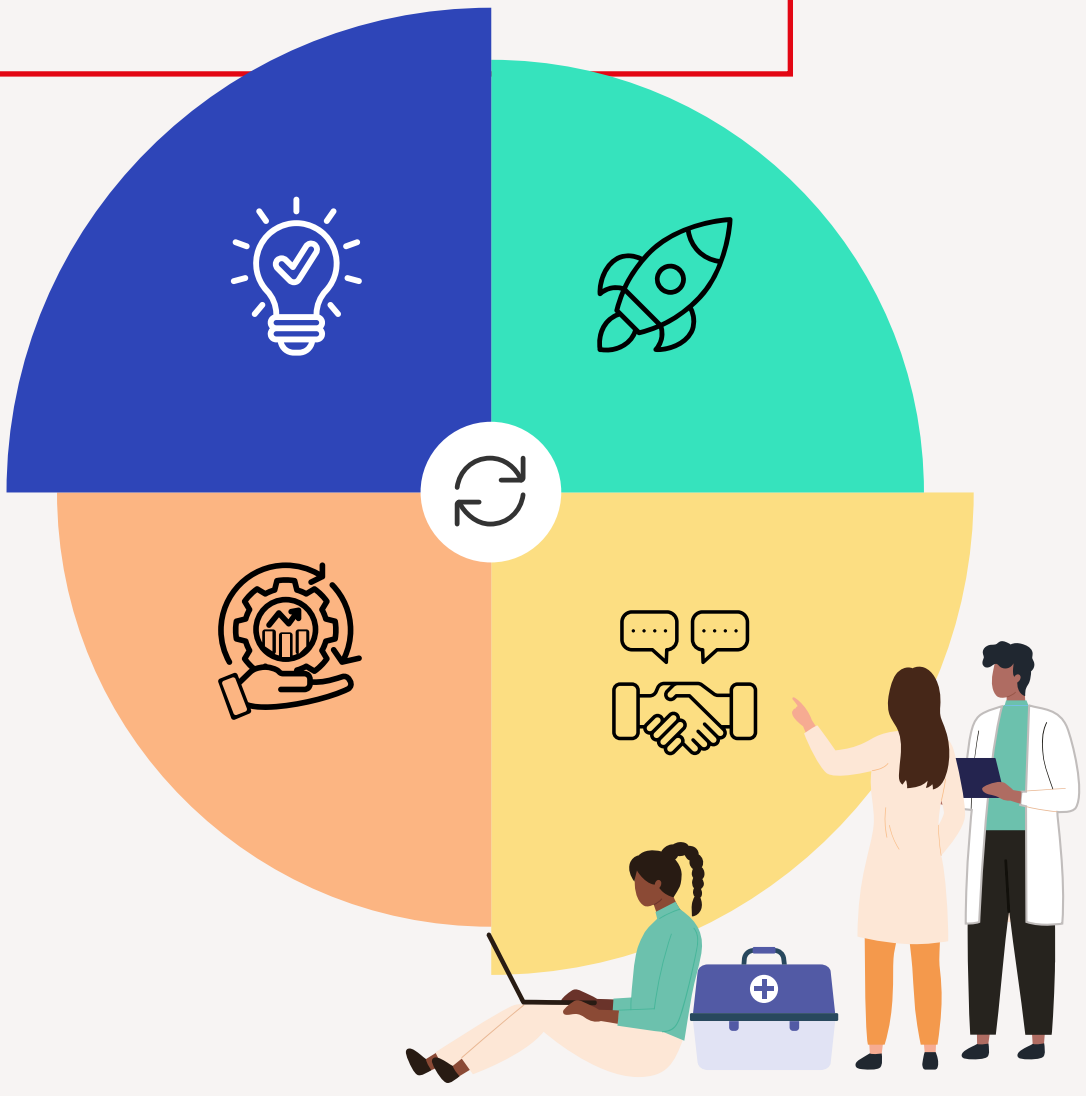
ECONOMIST IMPACT

From promise to impact:

A roadmap for equitable AI in healthcare



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About this report

From promise to impact: A roadmap for equitable AI in healthcare is a report produced by Economist Impact and supported by EMD Serono. Drawing on a robust methodology, including desk research and two advisory boards with multidisciplinary experts, the report builds on recent Economist Impact research that explored how artificial intelligence (AI) can both mitigate and exacerbate entrenched health disparities in the United States. It presents a forward-looking "Roadmap for Equitable AI in Healthcare", underscoring the urgency of the issue, defining priority areas for intervention and policy alignment, identifying key stakeholders, and outlining practical near- and long-term steps to addressing structural inequities through AI.

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- **Ricardo Baptista Leite**, CEO, HealthAI – The Global Agency for Responsible AI in Health
- **Leo Anthony Celi**, Senior Research Scientist, Massachusetts Institute of Technology; Clinical Research Director, MIT Laboratory for Computational Physiology
- **Lia Dibello**, CEO, President, and Director of Research, Workplace Technology Research Inc
- **Jerrold Jackson**, Director, Partner Enablement, Mayo Clinic Platform
- **Smit Patel**, Director of Digital Health and AI, Digital Medicine Society; Advisory Council, Harvard Business Review
- **Lisa Prasad**, Vice President and Chief Innovation Officer, Henry Ford Health
- **Neil Sahota**, CEO, ACSILabs
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Economist Impact bears sole responsibility for the content of this report. The findings and views expressed do not necessarily reflect the views of the sponsor. This research was led and supervised by Kati Chilikova, and conducted by Alcir Santos Neto. The report was written by Paul Tucker, edited by Kati Chilikova and Alcir Santos Neto, and sub-edited by Maria Ronald.

Executive summary

Widespread health disparities create major barriers to equitable healthcare in the United States (US), with differences in access and outcomes driven by race, ethnicity, gender, age, income, and geography.[1,2] After centuries of entrenched inequities, the arrival of artificial intelligence (AI) offers the potential to transform efforts to advance health equity. Yet, it also brings its own challenges, each of which could—if not managed effectively—exacerbate rather than reduce health disparities.[3,4]

In 2024, Economist Impact, supported by EMD Serono, launched a multi-phase research initiative to examine how AI could aid efforts to tackle such entrenched inequities in the US. Phase 1 of this program set out to assess the challenges and opportunities presented by AI, culminating in an executive brief, *Navigating the promise and potential pitfalls: AI and health equity*, published earlier this year.[5] This brief highlighted AI's potential to transform healthcare delivery by improving diagnostic accuracy and streamlining both clinical and administrative workflows, while also warning that biased data and flawed algorithms could inadvertently worsen disparities, if not managed carefully. Ultimately, it underscored that the way AI is integrated into healthcare will determine whether it serves as a powerful tool for equity or reinforces existing inequities and creates new, unforeseen challenges.

Phase 2 of the research aims to translate Phase 1 findings into action. Building on insights from leading experts across healthcare, technology, advocacy, research, and academia, gathered through two half-day advisory board meetings, it formalizes next steps in a "Roadmap for Equitable AI in Healthcare". At the core of this Roadmap is a definition of what "good" AI implementation looks like, as agreed by the advisory board members—"AI must be sustainable, empowering, and transparent. It must respect autonomy. It must build confidence, ensure access, and add real value to care."

The Roadmap details how AI can be wielded as a tool to advance health equity and optimize impact for individuals, health systems, and society. Relying on the AI life cycle as its foundation, Economist Impact developed the "PATH (Progressing AI Towards Health Equity) Framework" to assess health equity, identify drivers and barriers, address existing biases, and recommend practical strategies to drive policy priorities and progress across four pillars:

PILLAR 1

Inception

- Fund R&D for equity-focused AI through inclusive, community-centered co-design;
- Establish national standards for inclusive data collection and transparency, with new documentation paradigms that track how data is collected, used, and validated; and
- Test AI systems with the most marginalized and high-needs patients first.

PILLAR 2

Deployment

- Mandate localized, equity-centered validation processes before clinical use;
- Create shared liability frameworks with clear harm thresholds and recourse mechanisms to protect clinicians and patients; and
- Establish a regulatory body for independent model review.

PILLAR 3

Engagement

- Implement enforceable AI governance mechanisms with clear and transparent escalation paths tied to the harm thresholds defined in Deployment; and
- Fund and formalize community engagement in oversight and governance.

PILLAR 4

Outcomes

- Align reimbursement and procurement policies with measurable equity outcomes; and
- Standardize AI access and literacy support programs in underserved communities.

Overall, the Roadmap underpinned by the PATH Framework relies on adherence to four guiding principles:

1. Proactive equity
Design equity into systems from the start.

2. Enforceable governance
Governance must come with legal authority, community representation, and clear harm thresholds.

3. Aligned incentives
Equity must be tied directly to financial and operational returns, not treated as optional.

4. True accountability
Voluntary guidelines are not sufficient. Standards must be developed and enforced to prioritize public trust and safety.

AI is already transforming healthcare. And the call to action is clear: all stakeholders—policymakers, payers, healthcare organizations, healthcare providers, industry, patients, caregivers, advocacy groups, and communities—must work together to ensure that AI is harnessed responsibly to address and mitigate the deep disparities in the US health system. Co-ownership is vital—and therefore necessitates timely, coordinated action.

The current state of US healthcare: Entrenched inequities and the role of AI

The US healthcare system is beset by significant disparities.[1] A study of health systems of ten high-income countries across North America and Europe ranked the US ninth for equity, and reported that the country has the highest income-related differences in access to healthcare and race/ethnicity-related instances of unfair treatment.[6] These inequities are reflected in national data: one in three US adults have delayed seeking healthcare because of cost, and one in five adults have opted not to fill a prescription because of the same reason.[7]

The digitization of healthcare, including the rise of AI solutions, offers the potential to empower people, both healthcare professionals and patients, creating opportunities for achieving greater equity. However, without careful design and oversight, AI also has the potential to deepen existing disparities and amplify their impact.

At the heart of this inequity are the social determinants of health (SDoH)—defined by the World Health Organization (WHO) as "the conditions in which people are born, grow, live, work and age, as well as people's access to power, money, and resources" that profoundly impact their health status.[8] These structural factors are key contributors to the disparities within the US health system—for instance, while counties with the best healthcare access and infrastructure report the highest life expectancy, race, ethnicity, age, and geography, all closely linked to the SDoH, independently impact health outcomes within these counties.[1,9,10] Structural racism underpins many of today's health inequities.[11] For instance, Black and Hispanic adults, as well as women, parents, people with lower education and income, and those without insurance bear a disproportionate burden of healthcare debt.[12] Inequities also extend beyond cost; there are significant racial/ethnic disparities in health outcomes across cardiovascular disease, cancer, autism, mental health disorders, and sleep, among others.[13] Achieving equity hinges on the absence of disparities in health status and health outcomes, both of which are greatly influenced by SDoH—and the US still has a long way to go.

The entrenched inequities within the US healthcare system demand broad, systemic transformation that prioritizes equity in outcomes and access. AI should be used as a force for good that supports long-term, sustainable change, rather than a band-aid for deeper structural issues.

The role of AI—and the challenges it creates

The digitization of healthcare, including the rise of AI solutions, offers the potential to empower people, both healthcare professionals and patients, creating opportunities for achieving greater equity. However, without careful design and oversight, AI also has the potential to deepen existing disparities and amplify their impact.[3,4] One area where AI use could be significantly impactful is preventive and predictive healthcare. The technology is already being used to streamline and improve screening and diagnostic accuracy for several conditions, including various cancers.[14,15,16] Furthermore, AI is also optimizing routine administrative tasks, including scheduling, note-taking, billing, and patient data management, thereby reducing the administrative burden on healthcare providers.[17] Meanwhile, generative AI models such as Chat GPT are emerging as tools to improve health literacy and expand access to care, although caution must be exercised to ensure such tools are used to responsibly augment clinician-led care rather than replace it.[18,19]

One challenge in the use of AI in healthcare is ensuring that platforms and tools accurately represent the patients they are designed to serve. For example, currently, there is significant under-representation of racial and ethnic minorities in datasets, which alongside algorithmic human reporting biases, and the lack of transparency in the functioning of so-called "black-box" algorithms, could significantly impact the quality of care, and in turn, health outcomes.[20,21,22,23,24,25] Furthermore, the nature of AI requires large commercial organizations to have access to vast amounts of patient data, which raises important regulatory, privacy, and security concerns. The reliance on cloud computing and data storage further heightens the risk of exposure of patient data to cyberattacks.[26] Compounding these challenges, the regulatory and policy environment for AI remains underdeveloped, leaving policymakers and regulators struggling to keep up with rapid technological developments.[5] Beyond these data security issues, AI use in healthcare also raises questions about patient-centered care—fueling worries that in-person care will become harder to access, shared decision-making will be compromised, and the patient voice diminished amid the vast information gathered by AI algorithms.[27,5]

Advisory board members consulted for this report emphasized that AI has the potential to reimagine healthcare systems as proactive, efficient, and data-informed rather than reactive and disease-focused. However, they stress, that AI adoption should be carefully assessed to ensure that it reduces, rather than worsens, disparities in outcomes and access. Several experts urged a shift in mindset from short-term performance metrics to long-term, community-level impact on health equity.

This perspective on AI adoption underscores a broader truth—the entrenched inequities within the US healthcare system demand broad, systemic transformation that prioritizes equity in outcomes and access. AI should be used as a force for good that supports long-term, sustainable change, rather than a band-aid for deeper structural issues.

Defining "good" in AI-assisted healthcare

If AI is to be a force for good when it comes to equitable healthcare in the US, we must answer a key question: what does "good" mean? This report introduces a "Roadmap for Equitable AI in Healthcare". It provides a lifecycle-oriented framework for implementing AI as a positive catalyst for an equitable health system transformation.

At the core of this Roadmap is a shared definition, developed and agreed upon by the experts convened for this research: "AI must be sustainable, empowering, and transparent. It must respect autonomy. It must build confidence, ensure access, and add real value to care."

The practical implications of this definition follow three core tenets.

- First, advisory board members were clear that AI should enhance, not replace, human connection—relational care, and not technological reach, is the foundation of equity. "We're trying to replace workflows and relationships with technology…but trust is critical and cannot be replaced," says Leo Anthony Celi, Senior Research Scientist and Clinical Research Director, Massachusetts Institute of Technology.
- Second, equity must be treated both as a design principle and a business imperative. It must guide the design, validation, and deployment of AI systems from the start– helping to identify and mitigate bias– while equity-related return on investment (ROI) must become a central metric for investment, procurement, and evaluation across public and private sectors. "Equity has to be non-negotiable. It can't be treated as an optional add-on…it needs to be an integral part of the fabric of the ROI and the business case," says Smit Patel, Director and Head of AI, Digital Medicine Society; Advisory Council, Harvard Business Review. Embedding equity also means engaging those served by the health system as co-owners at every stage.
- Third, AI must be framed as a systems-change tool, not a quick fix. AI cannot deliver equity if the broader health system remains fragmented and inequitable. Without shifts in incentives, care delivery models and infrastructure, even well-designed tools may fail to create real impact. "AI cannot recode the world," says Celi. "The world needs to be recoded. And the new saying now is 'not garbage in, garbage out'. It's 'we live in garbage, and we have to clean it up'."

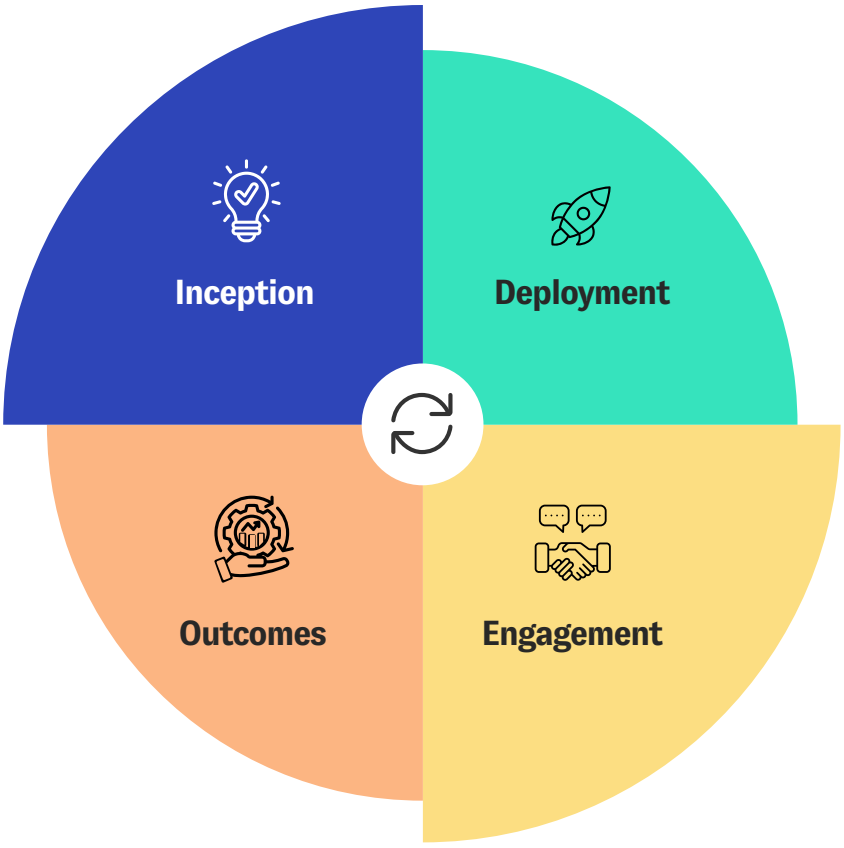
OUR NORTH STAR

AI must be sustainable, empowering, and transparent. It must respect autonomy. It must build confidence, ensure access, and add real value to care."

Advisory board members

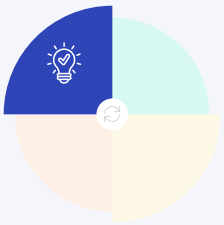
A roadmap for equitable AI in healthcare

Figure 1: The PATH Framework
Progressing AI Toward Health Equity



Following the lifecycle approach outlined in the PATH Framework (see Figure 1), our Roadmap begins with ***Inception***, examining how AI might be applied in healthcare through problem framing, data collection, model selection, and training. It then turns to ***Deployment***, addressing the integration of AI into health systems, including validation, liability, and workflow alignment. The third pillar, ***Engagement***, focuses on AI's practical role as a tool for equity, with attention to governance, feedback loops, and systems-level integration. Finally, the ***Outcomes*** pillar assesses what AI-driven equity looks like, with a focus on adoption, ROI, and impact. For each pillar, the report presents emerging opportunities, unmet demand, systemic barriers, and practical policy priorities.

The nature of the challenge—indeed, the nature of embedding equity within healthcare in general—necessarily means that the Roadmap is not a linear process. The adoption of AI as an equity-enforcing, systems-change tool will be a complex and iterative process, requiring the ongoing collaboration of multiple stakeholders and continuous refinement through feedback and adaptation.[28,29] As such, certain pillars feed into and reinforce each other, ensuring that equity is embedded in a sustainable, robust, and cohesive way.



PILLAR 1

Inception

The Inception pillar lays the foundation for the effective use of AI to advance equitable healthcare. It highlights four essential elements: framing problems clearly so that AI is applied to the right challenges; collecting data that is comprehensive, accurate, and representative of diverse patients and communities; selecting AI models that are appropriate for the issues being addressed; and training models with diverse, representative datasets to reduce bias. Taken together, these steps ensure that AI is built on solid ground, with equity designed into systems from the beginning rather than retrofitted later. With this foundation in place, the following section examines the most significant opportunities for AI to drive health equity.

Emerging opportunities

Patient-doctor relationship: AI as a tool to strengthen, not replace, human connection

Good AI should not replace human connection; rather, experts consulted emphasized that AI should empower clinicians to advocate for patients and increase people's ability to access the care they need. A critical part of this is positioning AI as a tool to support decentralized, community-based care. Multiple advisory board members stressed the value of deploying AI in trusted spaces such as community centers, schools, and churches, not to replace clinical care but to extend relational care into the community. Done well, this approach could strengthen patient–doctor relationships and empower local youth and partners as co-developers of AI solutions.

Put simply, AI should augment the agency of frontline caregivers, rather than displace these trust-based relationships, and it should serve as a support for relationship- and community-driven healthcare, rather than be a replacement for it. "Start with people, not tools," advisory board member Celi told us.

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Student usage—youth engagement and schools as AI stewards for long-term equity

AI has great utility and potential as a tool that supports exploratory learning—a function that can, and must, be enhanced through co-ownership and co-development.[30] Specifically, advisory board members emphasized the importance of empowering local youth and educational institutions as co-developers of AI. When schools and students help shape and safely experiment with AI–supported by strong governance, digital literacy training, and equitable access to technology–they not only build the skills needed for future employment but also help reduce the digital and opportunity divides that contribute to long-term health inequities.[31]

Ensuring that all young people, regardless of background, can participate in AI design and use enables more inclusive learning ecosystems and strengthens the social foundations of health equity.

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Unmet demands and system barriers

Training—the need to integrate AI, empathy, and equity into medical education

The rapid rise of AI presents both major challenges and significant opportunities for medical education.[32,33] Neglecting or ignoring AI in training risks worsening health disparities—whereas, with the right infrastructure in place, education can ensure that the technology is harnessed for good. Medical schools should integrate AI literacy into the curricula, with a focus on its intersection with empathy and equity. "Teachers forbid students to use AI, but instead we should be teaching them how to use AI so they learn more than they could in the classroom," says Celi.

Data quality—biased and fragmented EHR data

AI systems are only as reliable as the data on which they are built and operate. Current electronic health records (EHRs) are often biased and fragmented, raising the concern that AI could exacerbate, rather than mitigate, existing disparities, gaps, and errors in data processes.[20,21] For example, AI tools often lack localized validation and are trained on unrepresentative populations (often White, urban, and insured).[34] Data gaps include language exclusion, cultural mismatch, and invisible confounding factors.[35] Board members stressed that AI tools require health systems to institute new paradigms for documentation to ensure transparency and accountability in their application. "All data is biased, all people are biased," says Neil Sahota, CEO, ACSILabs. "We need to design knowing that."

Technology maturation—the reliance on legacy systems

Similarly, an over-reliance on outdated legacy systems hinders the implementation of AI and its potential to advance health equity. Legacy healthcare systems are often not designed to support equity or adapt to new technologies, such as AI. Therefore, models built on such systems may lack interoperability and be unrepresentative of the populations they are designed to serve.

Underserved patients—the lack of consideration of complex patient cases and scenarios

Healthcare processes designed to meet population-level needs may unintentionally exclude underserved patients. Board members discussed the hypothetical case of a 74-year-old Black woman living alone in a remote rural community, managing diabetes, hypertension, and arthritis. Such a patient—a complex case based on the combination of age, race/ethnicity, geography, living arrangements, and health status—would be likely to face limited access to healthcare, unreliable transportation, and intermittent availability of medical supplies and services.

Digital exclusion and culturally unresponsive care could further compound the challenges experienced by such patients.

Policy priorities

Fund R&D for equity-focused AI with diverse community co-design

Equity must be embedded from the beginning of the R&D process, not retrofitted post-deployment. Community partners should be engaged from the outset as active co-owners in development. "It is not the hospital that creates the tools," says Lisa Prasad, Vice President and Chief Innovation Officer, Henry Ford Health. "We end up buying them. Industry has to do that, and they need to be engaged in these conversations from the start." In addition, developers need stronger tools and incentives to center health disparities in model training.

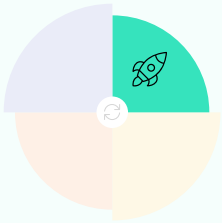
> **"It is not the hospital that creates the tools. We end up buying them. Industry has to do that, and they need to be engaged in these conversations from the start."**
>
> **Lisa Prasad**, Vice President and Chief Innovation Officer, Henry Ford Health

Establish national standards for inclusive data collection and transparency

For AI to advance equity, community-grounded data governance and representative datasets are essential. Board members stressed that AI tools require documentation systems that clearly track how data is collected, used, and validated.

Require "edge case-first" model validation processes

AI tools are often trained on narrow datasets. Edge cases refer to patients or scenarios that fall outside the majority of training data, often those with rare conditions, atypical responses, or complex social determinants of health. These "edges" frequently exist because data collection systems underrepresent marginalized or underserved groups.[36] Current processes, therefore, fail to reflect the realities of underserved patients and must be reoriented toward "edge cases" as the norm. Models must be validated for local populations; "edge cases", should become the center of focus.



PILLAR 2

Deployment

The Deployment pillar focuses on three key areas. Validation is the process of testing whether an AI algorithm performs its intended function in a manner that is equitable and suitable for the setting in which it is deployed. Liability relates to who is liable for the actions and guidance provided by the system, and which/how legal frameworks apply? Where does the legal responsibility lie? How is this responsibility shared and actions regulated? What are the avenues for recourse available to patients? Workflow integration refers to the process of integrating an AI tool into existing systems. Is it designed and tailored to serve a specific purpose within a system? Has the trust and know-how of different stakeholders been gained to ensure optimal, equity-driving deployment?

Emerging opportunities

Clinician support—workflow-aligned AI improves clinician efficiency

AI-assisted tools that reduce administrative tasks and improve clinician efficiency are already in use, and show a positive impact in healthcare settings.[17] Text-to-speech "ambient-listening" platforms, which help clinicians to transcribe their notes and conversations with patients, are one such example, helping to reduce repetitive, time-consuming tasks and free up clinician time for patient care.[37]

> **"It's the fear factor, the issue of the potential harm, the risks. We're still thinking twice before using an AI tool for certain parts of our clinical process."**
>
> **Ricardo Baptista Leite**, CEO, HealthAI – The Global Agency for Responsible AI in Health

Diagnostic AI—diagnostic uses in radiology show high impact with guardrails

The diagnostic power of AI-assisted platforms has already shown great promise—and practical utility. In radiology, AI's ability to support diagnostics and automate repetitive tasks has proven a powerful match for the volume of imaging data required. When safeguards and workflow alignment are in place, machine-assisted diagnostics deliver strong results.[14,38] Consequently, about 77% of US Food and Drug Administration (FDA)-authorized AI-enabled devices focus on radiology.[39]

Unmet demands and system barriers

Clinician acceptance—clinician trust and legal clarity remain weak

While AI has demonstrated clear potential to improve the provision of healthcare, further efforts are needed to ensure that clinicians view its adoption as both safe and beneficial. "It's the fear factor, the issue of the potential harm, the risks," says Ricardo Baptista Leite, CEO, HealthAI – The Global Agency for Responsible AI in Health. "We're still thinking twice before using an AI tool for certain parts of our clinical process." This is not technophobia: clinician reluctance stems from concerns over both care quality and the ambiguity of legal safeguards and accountability.

Practical challenges—AI tools lack practical support for adoption

In addition to trust-based and legal challenges, board members identified several practical barriers to AI adoption. These include clinician knowledge gaps in AI literacy, ethics, and decision-making, as well as limited explainability of how AI models reach conclusions—often due to the "black-box" nature of many AI algorithms.[40,28] Another barrier is workflow integration. Board members pointed to the risk of misalignment between vendor models and clinical settings; this risk is compounded by the lack of clarity from developers, industry, and healthcare organizations on how tools are intended to integrate with, or enhance, existing processes.[41]

Validation—no standardized, local validation benchmarks

Gaps in validation also hinder AI deployment. Specifically, there is a lack of validation benchmarks that are both standardized and locally applicable, which may hinder equity by neglecting context specific factors and critical "edge cases". "A model trained in one system doesn't automatically translate to another," explains Patel. "For example, Detroit's patient population looks very different from Alabama's, so you can't assume the model will perform the same."

Fragmented liability—legal burden falls on providers, not vendors

Advisory board members noted that provider organizations often absorb liability for AI tools, while tech companies remain legally insulated, forcing hospitals to bear the risk, further chilling clinician enthusiasm for adoption. "AI has blurred the traditional lines of liability and regulation hasn't caught up," says Patel. "Right now, clinicians often carry the risk for decisions influenced by systems they didn't design…having clear governance and humans in the loop is how we move from confusion to proper justifiable accountability."

Policy priorities

Mandate localized, equity-centered validation processes

Ensuring health equity through AI requires a shift from reactive care to proactive system design. Localized, equity-centered validation is a key part of this effort—underscoring the need for local validation sites to test models in diverse environments. Board members emphasized the importance of engaging communities in both AI design and validation, while simultaneously building their capacity to use AI effectively and sustainably. "AI validation must reflect the people it serves," says Patel.

> **"AI has blurred the traditional lines of liability and regulation hasn't caught up. Right now, clinicians often carry the risk for decisions influenced by systems they didn't design"**
>
> **Smit Patel**, Director of Digital Health and AI, Digital Medicine Society; Advisory Council, Harvard Business Review

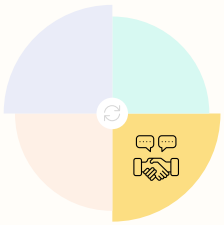
Create shared liability frameworks to protect clinicians

Clinicians and healthcare organizations currently lack the legal insulation that AI providers enjoy, raising uncertainty and hindering deployment. Board members stressed the need to update legal frameworks to establish harm thresholds and pathways for legal recourse within model deployment. AI tools must be integrated into existing clinical workflows while adhering to safety protocols and offering legal clarity and protections.[42]

> **"Geography, demographics, and workflows all shape performance. Validation is not about compliance like a checklist, it's actually about the context."**
>
> **Smit Patel**, Director of Digital Health and AI, Digital Medicine Society; Advisory Council, Harvard Business Review

Establish a regulatory body for independent model review

Current regulatory environments are not keeping pace with the rapid development and implementation of AI. Advisory board members emphasized that challenges to equitable scaling, such as inconsistent validation and legal and regulatory ambiguity, necessitate coordinated investment in infrastructure. An independent regulatory body, empowered with decision-making authority and technical expertise, should be established to provide clarity to all stakeholders on AI deployment and liability. "Geography, demographics, and workflows all shape performance," says Patel. "Validation is not about compliance like a checklist, it's actually about the context."



PILLAR 3

Engagement

The Engagement pillar focuses on three key areas. Integration relates to how AI models sit within operational processes, reimbursement models, and regulatory structures. Linked to the latter, governance focuses on the readiness of current governance structures and the necessary modifications to oversee AI use in a manner that serves equity and health outcomes. Employed correctly, feedback loops ensure that frontline stakeholders, including clinicians, patients, caregivers, and communities, are appropriately engaged in ensuring the equitable health impacts of AI systems.

Emerging opportunities

Operational efficiency—streamlined administrative processes

The potential for AI to take on repetitive tasks and reduce administrative workloads is as relevant to this pillar as it is to the Deployment pillar. For example, AI can streamline prior authorization processes and fulfill other administrative functions, including scheduling and billing.[43,44] As seen in the *Deployment* pillar, this creates significant potential to free up clinician time for direct patient care. This not only positively impacts the quality of care, but could also help reduce clinician stress and burnout, improving morale, mental well-being, and staff retention.[45]

Without alignment between innovation, equity outcomes, and community needs, efficiency gains from AI risk reinforcing, rather than reducing, existing disparities.

Yet, the realization of these opportunities highly depends on how AI systems are governed and incentivized. Without alignment between innovation, equity outcomes, and community needs, efficiency gains from AI risk reinforcing, rather than reducing, existing disparities. To move from isolated successes to systemic impact, policy priorities must ensure that incentives are equity-linked and that governance frameworks embed community voices at every stage.

Policy priorities

Link public and private reimbursement to equity outcomes

Governments must align incentives for procurement, reimbursement, and AI policy frameworks to reward equity-driven health outcomes, making it profitable for technology companies to prioritize inclusive design. Equity-linked ROI should become a central metric for investment, procurement, and evaluation of AI systems deployed across the public and private sectors. Governments that align infrastructure incentives around preventive care and digital security are already showing early success. For example, Portugal's health system has seen improvements in care quality and sustained equity through an outcomes-based model in which incentives are linked to clinical, organizational, and access indicators, an approach that could similarly inform how governance and incentive structures are designed for AI in health systems.[46,47]

Fund and formalize community engagement in governance

Governance must be grounded in funded, formalized partnership models that align the incentives of healthcare providers, regulators, vendors, and local community leaders. To ensure equity, impact, and trust, it is essential to involve the communities impacted by AI as co-owners with meaningful influence over decision-making. Board members highlighted key factors to consider around community engagement:

- Inclusion efforts often fall short when historically marginalized voices are present but lack influence over agenda-setting or design decisions.
- Genuine empowerment requires community participants to be fairly compensated and recognized as active agents, not token representatives, in the process.
- Failures in efforts to achieve health equity often stem from emphasizing surface-level inclusion activities, while leaving underlying systems of accountability and decision-making unchanged.

Ultimately, these partnerships must be accountable to outcomes, not just participation.

Currently, says Celi, "We give [communities] a seat at the table, but we order for them because [we think] we know what they want."

Beyond developing formal governance structures, accountability requires mechanisms for course correction and adaptation. Board members stressed the need to rethink feedback loops as living systems for course correction and learning that are accountable to the communities they serve. Community advisory boards were endorsed as essential anchors of legitimacy and adaptation. Experts advocated for such boards to be integrated into a model governance framework to ensure that equity-related outcomes are measured, monitored, and iteratively addressed. Importantly, feedback loops must prioritize those who are often excluded, such as dropouts, non-users, and underserved communities, to identify blind spots in deployment. To track progress, equity-related performance should be subjected to ongoing monitoring using community-informed dashboards.

Together, these opportunities, priorities, and accountability mechanisms underscore the need for a structured pathway that links design, adoption, governance, and measurable outcomes.

> **"We give [communities] a seat at the table, but we order for them because [we think] we know what they want."**
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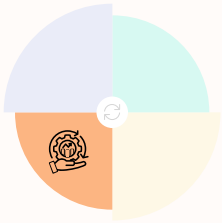
> **Leo Anthony Celi**, Senior Research Scientist, Massachusetts Institute of Technology; Clinical Research Director, MIT Laboratory for Computational Physiology



PILLAR 4

Outcomes

The Outcomes pillar is shaped by progress across three dimensions. Adoption reflects the willingness and ability of stakeholders—from developers to the patients they serve—to integrate AI tools into healthcare. Equity impact is an important dimension that shapes how systems are evaluated and experienced. ROI is another consideration as adoption is influenced by whether equity-oriented approaches generate value for payers, providers, and the industry.

Emerging opportunities

Sequential action

In earlier sections, "Emergent opportunities" served as a forward-looking subsection that identified specific areas where targeted interventions could drive meaningful and measurable progress. That analysis outlined where potential impact exists across the pillars and how coordinated action could translate into tangible results. This Outcomes pillar builds on that foundation, positioning these results as the culmination of the preceding pillars and reflecting what each was ultimately designed to achieve.

Unmet demands and system barriers

Incentive realignment—AI adoption is not sustainable without equity-tied ROI

Incentive structures must be realigned to reorient equity as a core priority, and not an afterthought, across both the public and private sector. Until such alignment occurs, equity is likely to remain as a "nice to have" rather than a driving force behind AI development. While existing equity-linked, outcomes-based models offer hope, there is a need to create ROI frameworks that reward demonstrable impact on equity-based outcomes. Ensuring ethical access to AI in healthcare requires reconciling business incentives with the moral imperative to "do no harm".

Persistent disparities in patient access and digital literacy

Both within and beyond healthcare, the digital age has increased access to information and communication, while simultaneously creating new access and literacy divides.[48] Although billions of people worldwide now have access to digital tools that did not exist just two decades ago, two-thirds use the internet and have basic information and communications technology skills.[49] The digital divide, between countries as well as generations, highlight why equitable design must be a foundational requirement, not an afterthought.

Digital health literacy and access are becoming increasingly critical. Research shows that digitally literate individuals have better self-management, are able to actively participate in their own medical decisions, and experience improved mental and psychological well-being, and quality of life.[50] Access to technology and digital literacy have been identified as so-called "digital determinants of health" (DDoH), alongside community infrastructure, like broadband internet.[51] DDoH directly influence health outcomes and intersect with other SDoH.[52]

Standards are needed to ensure that all patients can benefit; without them, digital tools risk reinforcing existing disparities. AI has the potential to simplify complex health information, aid self-care, and improve outcomes; unless digital education and access are equitable, however, disparities will widen.

Policy priorities

Create enforceable governance structures and accountability mechanisms

To be effective and reliable, AI in healthcare requires consistent rules of engagement in terms of how it is designed, who is involved, and how all stakeholders are engaged. Enforceable governance structures are essential to ensure that equity is embedded across all aspects of AI use in healthcare, including the validation of AI models. Without such structures, validation cannot be effectively developed in a way that is fit-for-purpose. This stage of governance extends beyond deployment, focusing on monitoring and accountability after a tool is launched. "Governance can't stop once a tool is launched," says Lia Dibello, CEO, President, and Director of Research, Workplace Technology Research Inc. "It has to ensure equitable outcomes are being achieved and sustained."

Board members were clear that governance without enforcement is merely performative. "Governance without real authority is meaningless. If committees don't have enforcement power, they're just talking shop," says Dibello. Healthcare decision-makers must align their systems with governance requirements and expectations, ensuring continuous monitoring, enforceable standards, and inclusive oversight. Effective governance demands both legal authority and community representation, since trust in AI-enabled healthcare depends as much on cultural legitimacy as on technical oversight. In policymaking, governance is only meaningful when it is backed by enforcement mechanisms that can be applied in practice. Clear accountability pathways, with consequences for non-compliance, are essential. Without actionable enforcement, decision-makers risk implementing frameworks that look comprehensive on paper, but fail to protect patients, providers, and communities in real-world settings.

> **"Governance can't stop once a tool is launched. It has to ensure equitable outcomes are being achieved and sustained."**
>
> **Lia Dibello**, CEO, President, and Director of Research, Workplace Technology Research Inc.

Ensure access to inclusive data

Data is also key. Fragmented, biased, and inaccessible data continue to hinder the development of equity-centered AI. Without serious investment from healthcare decision-makers and industry in inclusive data collection, processing, and transparency, AI will continue to reproduce the inequities already present in the US healthcare system.

Build minimum viable collaboration and regulatory sandboxes

Finally, advisory board members introduced the concept of "minimum viable collaboration", a model that outlines the smallest number of most essential roles and commitments each stakeholder must bring to the table. These include shared validation mechanisms, digital infrastructure, and trust frameworks that can scale. Co-ownership is essential—industry, regulators, and civil society must share power within governance frameworks. Building on this, support for collaborative development is essential, especially for validation. This can be facilitated through the creation of regulatory sandboxes that allow for safe experimentation with built-in equity safeguards.

Looking forward

Equity must be treated as a measurable outcome of health system performance, not a by-product.

Health equity will depend on decentralized care ecosystems, representative data systems, and a new generation of AI-literate, community-empowered stakeholders. Clinicians, patients and caregivers, industry partners, community members, and advocacy groups do not need to master the technical workings of AI—but they must understand its limits, risks, and opportunities, and how these systems can both support and fail them. This digital literacy is essential for navigating dangers responsibly, seizing opportunities for improved health, and building shared accountability across all actors.

"Shoehorning AI into broken systems… is nothing but rearranging the furniture of the Titanic."

Leo Anthony Celi, Senior Research Scientist, Massachusetts Institute of Technology; Clinical Research Director, MIT Laboratory for Computational Physiology

Driving equitable health outcomes requires more than deploying AI responsibly within health systems. It depends on aligning the foundations of adoption with enforceable governance and extending these efforts into cultural, educational, and systemic change. Equity must be treated as a measurable outcome of health system performance, not a by-product. That means embedding equity into ROI models, designing AI tools for the margins rather than the average, and ensuring DDoH are addressed alongside other SDoH.

Ultimately, the pathway to health equity is iterative and collective. Technical safeguards and governance structures will only succeed if they are reinforced by long-term investment in trust, inclusion, and literacy. Achieving this requires co-ownership across sectors and communities, as well as a shift in perspective: AI is not a quick fix, but a catalyst for health system transformation. As Celi warns, "Shoehorning AI into broken systems… is nothing but rearranging the furniture of the Titanic." By grounding innovation in equity and accountability, health systems can ensure that AI becomes a driver of better outcomes for all.

Conclusion

Only through cross-sectoral alignment—where policymakers, payers, healthcare organizations, clinicians, industry, patients, caregivers, advocacy groups, and communities co-own the process—can these principles take root.

The integration of AI into healthcare is not in the distant future—it has been underway for over a decade. AI promises a sea change across many areas of healthcare, from administrative tasks and patient guidance to screening, diagnostics, and treatment. However, it also presents urgent challenges in various areas, not least health equity. In an environment of already deeply entrenched health disparities affecting healthcare access, population health, and system sustainability, the equity challenges that could be introduced by widespread AI adoption must be foreseen and tackled systematically. AI's time has come—as has the imperative to ensure that it fulfills its potential as a catalyst for health equity, rather than exacerbating existing disparities.

To meet this challenge, a deliberate and structured approach is essential. The PATH Framework provides a Roadmap to ensure AI becomes a driver of equity, rather than a source of inequity. It highlights priorities across four pillars—Inception, Deployment, Engagement, and Outcomes—which together form a theory of change for building equitable health systems.

Yet frameworks alone are not enough. Their success depends on adherence to the guiding principles set out at the start: proactive design of fairness into systems from the outset; enforceable governance to ensure rules, representation, and safeguards carry real authority; aligned incentives to make equity important to financial and operational returns; and true accountability to move beyond voluntary guidelines toward enforceable standards that protect public trust.

Only through cross-sectoral alignment—where policymakers, payers, healthcare organizations, clinicians, industry, patients, caregivers, advocacy groups, and communities co-own the process—can these principles take root. The other factor is urgency—AI has arrived, and so has the moment to build it into health systems as a force for good.

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