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Proceeding report from Madrid conference on the responsible scale of AI in healthcare

Scaling fast while doing no harm

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Abstract

Artificial intelligence is already transforming healthcare, by helping clinicians reduce administrative burden, improving diagnostic safety, and supporting population health. Yet despite growing investment and enthusiasm, most health systems are still struggling to translate AI's promise into measurable improvements. Bringing together 142 experts from 34 countries and 35 partner organisations, the Spanish Ministry of Health and OECD co-hosted a conference on the responsible scale of AI in healthcare. The conference sought to move the conversation beyond whether AI should be adopted and focus instead on how it can be scaled safely and effectively. The central message was clear: successful AI adoption relies on facilitating trust, strengthening foundations, and developing sustainable economic models for the digital age. This proceedings report summarises the outcomes from the conference. At its heart is the Expert-Led Madrid Action Plan (EL-MAP), a practical framework comprising ten priority actions to guide governments, industry, healthcare leaders, and civil society in accelerating the effective scale of AI in health. For policymakers, innovators, health leaders, and anyone interested in the future of healthcare, this report offers an important and timely vision for how international collaboration can ensure AI delivers better health, better care, and better value for all.

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Executive summary

Artificial intelligence (AI) in health is rapidly advancing: an estimated 230 million people use AI tools weekly for health-related queries and 35% of the public report using AI before they meet a health provider. AI applications are increasing in scope, spanning clinical decision support, diagnostics, public health system management, as well as administrative and operational functions such as medical scribes, and other areas.

Given the rapid deployment of AI and its demonstrated advantages for specific tasks, the question is no longer “should we adopt AI in health?”, but “how do we adopt AI effectively and safely?”. This marks an inflection point where the mindset around AI is moving from experimentation to scale.

However, health systems are struggling to scale AI in health efficiently and effectively. More than 90% of executives report no measurable impact on productivity. There are numerous emerging principles, guidance, and frameworks for how to achieve value; however, these are often fragmented and built independently. This creates collective noise for policymakers with inconsistent language, priorities, and framing.

Inspired by the drive to accelerate the effective scaling of AI in health systems for better human and economic benefits, the OECD and the Spanish Ministry of Health co-organised a conference on the “Responsible Scale of AI in health”. The conference was held on 28-29 May 2026 in Madrid, Spain, and brought together 142 experts, from 26 OECD Members, 8 accession candidate and Key Partner countries, and 35 international partners.

Through the conference, several themes became apparent; (1) scale happens at the speed of trust, (2) foundations of digital and data infrastructure, policy, oversight, technology lifecycle management would benefit from greater coherence, and (3) economic and financial costs and benefits for the use of AI in health need to be better understood.

Experts were asked to identify actions where collaborative guidance would be most beneficial for health systems to advance the effective scale of AI in health for human and economic benefit. They were further asked how to create a “signal above the noise” – that is, incentives and enablers – for policymakers and industry. The intended outcomes from the actions would be to reduce unnecessary redundancy by fostering strong foundations including assessment of the impact of AI initiatives in real-world settings, providing economic and financial models that support scale of valuable initiatives, and supporting innovators to design, develop, and deploy them with more certainty. Further actions would help to foster trust and use of AI among health providers and the public. Experts were asked for existing initiatives and actions to build on what is working, so that it can be amplified, or identify gaps that could be addressed collectively.

These themes formed the basis for the Expert-Led Madrid action plan (EL-MAP). In this proceedings report, countries and experts identified existing initiatives that will support the implementation of EL-MAP.

Experts identified ten actions for EL-MAP. The actions are aligned with the themes from the Conference.

Establish and sustain trust

1. Co-design use cases for AI-powered, person-centric learning health systems (Co-design of use cases)
2. Co-develop competencies and capacities to work with AI (Capacity building)
3. Co-facilitate multi-party co-operation and partnerships (Collaboration and partnerships)

Strengthen foundations

4. Identify leading practices to oversee and lead the integration of AI in health (Leadership)
5. Develop baseline policies that support the effective scale of AI in health (Policy)
6. Develop baseline policies, processes, and approvals for the full AI in health lifecycle (Life Cycle)
7. Strengthen data and digital infrastructure with protection and to support scale (Infrastructure)
8. Enable effective adaptability to emerging capabilities (Adaptability)

Develop economic and financial models

9. Develop model for economic returns from AI in health (Economics)
10. Develop considerations for financial management related to AI in health (Financing)

In addition, EL-MAP would have an action to measure the readiness, usage, and impact of AI in health innovations. This would help focus action on effective scaling of AI in health innovations that work.

The Madrid Conference validated the need and opportunity for international co-ordination to move activity on AI in health from frameworks to action. EL-MAP would generate expert guidance on a set of leading practices and provide horizon scanning to prepare health systems for the future, including genetics, genomics and others as they arise. This could support shared collaborative networks, and meaningful engagements to foster trust in the development, deployment, and use of AI for better health outcomes and better health systems for all.

2 AI in health: From potential to practice

Health is widely recognised as one of the most promising sectors for the application of artificial intelligence (AI), with potential to improve patient outcomes, clinical decision making, system efficiency, and health innovation while protecting public and population health. At the same time, healthcare has been slow to absorb and unlock the value of technological innovation at scale. As AI adoption accelerates – and generative AI is scaling three times faster than recent technology innovations (Exponential View, 2026[1]) – it remains uncertain how health systems will enable the transition from isolated pilots to a coherent ecosystem capable of delivering sustained system-wide benefits.

In its efforts to support the development of enabling foundations for AI in health, the OECD has analysed the early diffusion of AI across health systems. The evidence points to a sector at an early but pivotal inflection point, where the potential gains are significant, but system readiness remains uneven:

- OECD projections estimate that AI alone could result in a 6% productivity gain in healthcare over a ten-year period in OECD countries (Filippucci, Gal and Schief, 2024[2]).
- Up to 97% of health data remains unusable for clinical decision making, limiting the potential for data-driven care (Anderson and Sutherland, 2024[3]).
- Health providers are not worried about AI replacing their jobs (70%) but are worried about AI being deployed without their input (72%) (Almyranti et al., 2024[4]).
- Less than one-third of OECD countries have taken action to strengthen foundations or human capacity to use AI in health (OECD, 2026[5]).
- Seven OECD countries have published specific strategies at the intersection of AI and health, recognising the importance of health-specific actions for the adoption of AI (OECD, 2026[5])
- AI adoption remains concentrated in operational and task-specific applications, with all surveyed OECD countries using AI for administrative automation and 95% for imaging diagnostics. By contrast, only 55% report using AI for predictive analytics, risk stratification, or personalised treatment planning, where the potential to influence clinical outcomes may be greater (OECD, forthcoming[6]). Evidence from the European Union similarly suggests that AI uptake remains uneven and often localised, constrained by fragmented and non-interoperable health data, uneven digital maturity and limited real-time data access (OECD, 2026[7]).

These findings suggest that AI adoption in health is advancing, but along a fragmented and uneven trajectory that remains weakly connected to the foundations required for scale. This signals an opportunity to work together across countries and sectors to accelerate action in a way that facilitates the scale of AI.

There is urgency to act: OpenAI estimates suggest that 230 million people are already using AI for health-related queries (OpenAI, 2025[8]), and 35% of the public report using AI for health purposes before consulting a doctor (Edelman Trust Institute, 2026[9]). Yet evidence of value remains limited with 90% of firms adopting AI report no change in productivity (Yotzov et al., 2026[10]). Collective action is necessary to move health systems beyond promising pilots towards effective scale, ensuring that AI delivers measurable

value for individuals and populations and remains grounded in human needs (The Holy See, 2026[11]; Anderson and Sutherland, 2024[3]).

What AI in health can do: Early evidence of benefits

Beyond AI's growing adoption in task-specific and lower-value functions, emerging evidence shows measurable economic and human value at defined points along the care pathway. While still uneven, early deployments demonstrate impact across administration, diagnostics, system operations, population health, and research. These non-exhaustive examples illustrate both the breadth of current applications and the concentration of evidence in specific domains of healthcare delivery (see Table 1).

Table 1. Demonstrable value from reported AI in health use cases

Domain	Illustrative Use Case	Description of value
Administrative and workflow automation	Ambient Voice Technology (AI Scribes)	AI-powered documentation tools reduce administrative burden, increase clinician-facing time and improve workflow efficiency. Early evidence suggests reductions in documentation time and clinician burnout, while emerging evidence of return on investment indicate improved productivity and coding completeness (Holmgren et al., 2026[12]; Rotenstein et al., 2023[13]; Shah et al., 2024[14]; Olson et al., 2025[15])
Clinical Decision Support (diagnostics)	Medical imaging analysis (radiology, pathology, ophthalmology)	AI models trained on large imaging datasets can detect anomalies such as tumours, fractures and retinal disease with accuracy comparable to or exceeding specialist review, while processing images in seconds rather than days. Value is strongest in prioritisation and second-reader roles rather than full automation (Liu et al., 2019[16]; Hassan et al., 2024[17]).
Health system operations and capacity management	Use of health resources (bed management, demand forecasting, patient flow optimisation)	AI-driven demand forecasting and bed management tools allow hospitals to anticipate patient flows, reduce bottlenecks, and allocate staff and resources more efficiently. In some health systems, predictive scheduling has reduced average length of stay and cut avoidable readmissions by identifying patients at risk of deterioration before discharge (Alnsour et al., 2023[18]; Rampengan, Permana and Wuisan, 2025[19]).
Population health and prevention	Risk prediction and screening prioritisation	AI models integrating clinical, demographic, and behavioural data can identify population segments at elevated risk of disease before symptoms emerge. Value is highest in stratified screening and preventive care targeting, though external validity varies across systems (Rajkomar, Dean and Kohane, 2019[20]; Topol, 2019[21]; Antegenes, 2024[22]; Eisemann et al., 2025[23]).
Biomedical R&D and drug discovery	Target identification, clinical trial design	AI is compressing the drug discovery timeline from an average of 10 to 12 years to a fraction of that in specific stages. Prediction of protein structures, previously a bottleneck requiring years of laboratory work, is the most cited example. More broadly, AI tools are accelerating target identification, molecule screening, and clinical trial design, with direct implications for rare disease research where commercial incentives have historically been insufficient to sustain long development cycles (European Medicines Agency, 2026[24]; Jumper et al., 2021[25]).

These use cases demonstrate AI's potential in providing value at both individual and population levels, but the benefits remain localised, unevenly distributed, and weakly connected to system-wide transformation. As a result, productivity gains from digitalisation in health continue to lag behind other sectors (Filippucci, Gal and Schief, 2024[2]). The core challenge is therefore not the absence of viable solutions, but the limited ability of health systems to scale them consistently across settings and populations.

The OECD AI in health Expert Group, formed in May 2024, has emphasised that the central constraint is not technological potential but system-wide diffusion at scale, including across borders. Building on this finding, the next section examines the structural barriers that limit scaling and sets out the foundations required for co-operative action for the effective scaling of AI in health.

Why are AI advances not yet translating into better health outcomes at scale?

Despite the increasing evidence of AI's potential in improving health outcomes, the **benefits of AI for patients, healthcare providers, and health systems remain limited in scale and unevenly distributed**. This is not primarily a technology problem. It reflects a more fundamental mismatch between the logic driving AI investment in health and the conditions required to generate sustained improvements in care. Addressing this mismatch requires moving beyond a simple "top-down" versus "bottom-up" view of AI governance and understanding scale as a process of multilevel orchestration across policy, institutions, developers, providers and users (Cresswell et al., 2026[26]).

Investment in AI in health has largely followed a technology-driven growth model, premised on the assumption that advancing technical innovation will generate commensurate economic and rapid productivity gains. This approach draws on experience from sectors such as ICT, telecommunications, finance and professional services, where AI exposure is relatively high and productivity levels and growth have historically been stronger. However, these experiences may not readily translate to health, where the conditions for adoption are less standardised, the pathways from deployment to impact are longer and less linear, and the organisational and human foundations needed to absorb and effectively use technology are more complex (Filippucci et al., 2024[27]).

Applied to healthcare, that model reveals a fundamental limitation: it conflates technology diffusion with system transformation, which challenges how use of technology supports productivity gains in health (World Economic Forum, 2026[28]). In health, value is unlikely to arise from inserting novel AI tools into unchanged care pathways. Productivity and outcome gains depend on whether health systems are able to redesign workflows, adapt organisational and policy settings, and build the change leadership needed to absorb innovation. This cannot be left to AI developers alone: it requires change-ready health systems that work with developers to identify what is technically possible and translate it into new models of care that improve outcomes, experience and sustainability.

The productivity paradox in healthcare: Why more AI is not always better

The assumption underlying most AI productivity arguments is borrowed from manufacturing or financial services logic: if a tool allows the same input to generate more output, value is created. In healthcare, this translation breaks down not because the efficiency gains are absent, but because efficiency and outcome are not the same thing, and health systems have spent decades optimising for the former while struggling to measure the latter.

Among the most studied applications, Ambient Voice Technology (AI scribes) generate the most return-of-investment evidence in the literature and across countries (see Table 1). Such a tool allows clinicians to document faster and see more patients per day with expected productivity gains. However, it produces *more encounters*, but not necessarily *better care*. The relationship between volume and outcome in health is not linear: beyond a certain threshold, the literature on physician workload and diagnostic error suggests it turns negative (Rotenstein et al., 2023[13]; Slawomirski et al., 2025[29]). Throughput is improved but not necessarily health status.

This is consequential because clinician time is already highly constrained. While health encounter has been estimated to least five minutes or less on average (Irving et al., 2017[30]), AI-enabled time savings will therefore not automatically translate into better care. In many systems, clinicians are evaluated on patient experience while operating under volume-based targets. Whether AI creates more time for patients or is absorbed into additional activity will depend on the incentives, metrics and accountability arrangements that shape how productivity gains are used.

Evidence from early adopters suggests that while AI scribes may reduce clinician burnout and after-hours documentation time (Tierney et al., 2025[31]), their system-wide financial impact remains uncertain and is

increasingly associated with higher overall costs rather than savings (Peterson Health Technology Institute, 2025[32]). By reducing documentation time per encounter, AI scribes may therefore enable higher patient throughput and more detailed coding, expanding the volume and complexity of reimbursable activity. Practically, this reduction in documentation time may come from reduction in time for documentation that occurs outside of regular working hours. What appears as productivity improvement at the level of clinical workflow can thus translate into upward pressure on total system expenditure by increasing reimbursable activity while reducing after-hours documentation time.

What makes healthcare genuinely different from most sectors is not simply that outcomes are hard to measure, but what demand in healthcare actually represents. In most markets, higher demand reflects a proxy for value creation. A health system generating more consultations, more prescriptions, and more procedures may be responding to genuine need, but that need is itself partly a product of what the system failed to do upstream. More activity is not evidence of more value, but it may be evidence of accumulated failure. The right productivity measure for health is therefore not output or volume of care per clinician hour but progress towards improving health's Quintuple Aim: better patient outcome and experience, improved provider well-being, sustainable system expenditure, and benefits accessible to all. AI has yet to demonstrate, at scale, that it moves that needle (Tierney, Lee and Liu, 2026[33]; Weeks, Lavista Ferres and Weinstein, 2024[34]). This gap reflects, in part, the time required for effects to emerge. The components of the Quintuple Aim change over different horizons: provider well-being and patient experience may shift within months, whereas patient outcomes and system expenditure may take years to change. Evaluations of AI will need to consider these time horizons, while also respecting demands for return on investment.

Beneath all of this sits a **measurement problem**. Health systems are considerably better at measuring what AI improves such as speed, accuracy, and volume processed rather than what it changes: patient agency, quality of life, avoidable deterioration, long-term disease trajectory. A diagnostic algorithm that detects a condition earlier will show up in detection rates. Whether that detection translates into better survival or reduced system burden years later is far harder to capture, and most health information systems are not built to do it. AI adoption gets evaluated on the metrics it improves most visibly and rapidly, which are not always the ones that matter most. Until outcome measurement catches up with AI capability – including through indicators of access, care co-ordination, patient outcomes, and broader system performance – the productivity paradox will persist, not because AI is failing to deliver, but because the systems for determining whether it is delivering remain incomplete.

These risks do not suggest that AI is incapable of delivering better outcomes at scale. Instead, they demonstrate that the conditions for success are more demanding than the standard productivity narrative implies. The central challenge for healthcare is not whether AI can make clinicians faster, but whether health systems can convert those efficiency gains into measurable improvements in health.

In that context, a central question emerges: what practical actions and enabling conditions are needed to scale health AI in ways that improve health outcomes, well-being, and experience, while fostering innovation and managing health system expenditures. This question anchored discussions at the Madrid AI in health Conference, co-organised by the Spanish Ministry of Health and the Organisation for Economic Co-Operation and Development (see Section 3).

Beyond technology: Why AI struggles to scale in health

Integrating AI into healthcare is increasingly less a question of technological capability than of institutional readiness. AI capabilities and investment are advancing rapidly, and adoption is expanding beyond clinical and administration functions. Yet healthcare has demonstrated that technological deployment alone does not generate system transformation, and the pathways through which AI creates value may differ across health system models and institutional contexts.

A similar pattern has been observed in the diffusion of informatics in the 1980s, where productivity gains were delayed for decades after widespread adoption, materialising only when complementary investments in skills, organisational redesign, and process innovation allowed firms to absorb and operationalise the technology (Brynjolfsson, Rock and Syverson, 2021[35]; Capello, Lenzi and Perucca, 2022[36]). Previous waves of digitalisation produced substantial investment in electronic health records, digital prescribing, and health information systems, but often failed to deliver proportional improvements in productivity, interoperability, or patient outcomes because organisational, governance, and incentive structures evolved more slowly than the technologies themselves. AI risks following the same trajectory: rapid deployment into systems that remain structurally unprepared to capture its full value.

Prior to the Madrid Conference, expert consultations identified systemic constraints and barriers to scaling AI in health:

- **Stretched health workforce sceptical of AI use:** Workforce scepticism reflects structural strain rather than technological resistance alone. The OECD projects a shortage of 8 million health workers by 2040, with nursing accounting for nearly 74% of the gap (OECD, forthcoming[6]). In this context, AI may be introduced into systems already burdened by staffing shortages and previous digital transformations that increased administrative workload and did not meet the needs of clinicians and patients on the ground. Resistance therefore reflects accumulated operational fatigue and concerns that new tools will add complexity, rather than opposition to innovation itself (Almyranti et al., 2024[4]). Concerns around liability compound this scepticism. Clinicians may be held liable both when they follow an AI recommendation that results in harm and when they decline a recommendation that would have prevented it; neither the quality of the tool nor the soundness of the clinician's reasoning provides certain protection (Mello and Guha, 2024[37]). Where tools generate frequent alerts of low predictive value, clinicians bear both the workload imposed by those alerts and the risk associated with the rare correct alert that is overridden.
- **Fragmented accountability without a clear sense of direction:** Fragmented accountability creates a co-ordination problem that few health systems have successfully resolved. AI implementation frequently requires action across ministries, regulators, payers, providers, technology vendors, and professional bodies, yet responsibility for achieving system-wide outcomes is rarely assigned to a single institution. What emerges is a governance vacuum in which many actors influence success, but none are accountable for it.
- **Trust deficits in AI-driven systems**. Trust deficits across patients, clinicians, and institutions represent a cross-cutting barrier to AI adoption in health, closely linked to gaps in accountability. At the patient level, concerns about data use, reliance on algorithms, and loss of human judgment reduce willingness to share data, potentially limiting the availability and diversity of data needed to develop, validate, and deploy AI systems effectively. At the institutional level, many AI tools are validated in controlled settings that do not reflect real-world clinical conditions, leaving unresolved questions around liability, performance, and governance under existing regulatory frameworks. Trust is self-reinforcing: well-governed deployments accelerate adoption, while failures such as poor quality outputs, errors, or data breaches can rapidly erode confidence and are difficult to rebuild. Trust therefore functions as institutional capital: it accumulates slowly but can be depleted quickly. Since AI systems depend on continuous data access, clinician engagement, and public legitimacy, trust is not a soft constraint but a core condition for system performance.
- **Inconsistent regulatory and policy landscape not adaptable to change:** Regulatory frameworks are increasingly struggling to match the speed and iterative nature of AI development (Singh, Zhou and Auclair, 2025[38]). While AI models can be updated within weeks, regulatory adaptation often occurs over years (OECD, 2026[5]). The result is a growing mismatch between technological and institutional cycles, creating uncertainty for developers, providers, and patients alike. In many jurisdictions, overlapping frameworks across digital health, data protection, medical devices, procurement, and liability further compound complexity (Aldhalimi, 2026[39]). Some of

these frameworks have a homogenous treatment of AI solutions that do not acknowledge the diversity of risk profiles. The result is not necessarily stronger safety, but fragmented governance that increases compliance burden while slowing diffusion of beneficial innovations.

- **Data fragmentation that prioritises in-house value.** Early digital health investment produced facility-centric data models with limited interoperability, stretching scarce resources across incompatible systems (OECD, 2026[40]). As a result, health data remains fragmented across incompatible systems, preventing AI models from being trained, validated, and deployed across settings. In practice, systems can generate data but struggle to convert it into scalable learning: models developed in one context rarely generalise to others, and each deployment effectively restarts the development cycle. The result is a data infrastructure that supports local optimisation but constrains system-wide learning and limits the cumulative returns on AI investment.
- **Technological dependence and limited strategic capabilities.** Scaling AI in health also depends on access to trusted and resilient digital capabilities, including secure infrastructure, computational resources, foundational models, procurement mechanisms and technical expertise. Where these capabilities are concentrated outside the health system, countries may face new dependencies that affect sovereignty, resilience and sustainable scale. Health systems will therefore need to balance international collaboration with the development of trusted national or regional capabilities that can support effective AI adoption over time.
- **Misalignment between innovation incentives and health system priorities.** Much of the estimated USD 18 billion investment in health AI is driven by technical feasibility and commercial opportunity rather than by population health needs (World Economic Forum, 2026[28]). As a result, development is concentrated in areas that generate measurable short-term returns such as diagnostic imaging, administrative automation, and revenue cycle management, while domains with potentially greater health impact, including prevention, mental health, primary care co-ordination, and multimorbidity management, remain comparatively underserved. In the absence of clearly articulated demand from health systems, developers often define the problems to be solved rather than seeking the needs of health systems. The result is not a shortage of innovation, but a mismatch between where innovation is concentrated and where disease burden and system need are greatest. This risks directing scarce investment toward solutions that scale commercially while delivering limited system-wide health gains.
- **Misaligned incentives favouring standalone tools over shared foundations.** Procurement processes prioritise short-term cost savings, while reimbursement mechanisms continue to reward activity rather than outcomes. As a result, efficiency gains generated by AI are rarely reinvested in the data infrastructure, workflow redesign, workforce capabilities, and governance arrangements needed to support scale. Health systems therefore tend to adopt standalone tools such as AI scribes or diagnostic algorithms at the facility or departmental level, without building the interoperable foundations that benefit integration and reuse. The result is a proliferation of pilots and local successes, but limited system-wide transformation.

Continuing to focus policy efforts solely on addressing each of these barriers independently may impose a higher burden on health systems and populations. **Instead, these challenges suggest that health systems are at an inflection point, where the use of AI is being normalised and focus is shifting from promising pilots to creating the conditions that accelerate effective scale.**

Collective action to design mutually reinforcing activities

The OECD Expert Group on AI in health identified the effective scale of AI in health as a key goal, and **collective action as a condition to reach that goal**. The AI in health policy checklist provides a living compass for identifying blind spots in the adoption of AI at national and international levels (OECD, 2026[5])

and sits within a growing landscape of frameworks produced by international organisations, governments, think tanks, not-for-profit organisations, and consulting firms (WHO, 2021[41]; WHO, 2026[42]; European Union, 2024[43]; ISO, 2023[44]). That fragmented landscape signals the need to align practices across organisations: the governance challenge is recognised, the tools are multiplying, and yet the gap between AI's demonstrated potential and its system-wide impact continues to widen.

What is now needed is to move beyond guidance and provide **a clear signal to countries to enable the scaling of health AI, anchored in collective action**. The extensive literature on AI in health has established what works in controlled settings and identified systemic barriers to scale. What it has not yet produced is compatibility and shared learning on human capabilities and technical capacities across countries, institutions, and sectors to drive action toward common trust, data foundations, governance standards, and accountability frameworks that would allow AI to deliver value within and across borders.

Other sectors offer instructive precedents for governing complex, high-stakes systems at scale. The global banking system demonstrates how fragmented oversight and misaligned incentives can generate systemic risk in highly interconnected environments, while air traffic control shows how safety and efficiency can be maintained through interoperable standards, co-ordinated governance, and real-time information sharing across jurisdictions. Both sectors illustrate that scalable innovation depends not only on technology, but on shared rules, aligned incentives, and collective mechanisms for managing risk.

Healthcare shares characteristics of both systems but operates under unique constraints. Like banking, it is vulnerable to fragmentation and systemic risk; like air traffic control, health relies on co-ordination, interoperability, and shared situational awareness to function safely at scale. At the same time, health AI must balance three objectives simultaneously: accelerating innovation, protecting patient safety, and ensuring access to benefits for all. Realising AI's potential will therefore depend on governance, infrastructure, and incentives that align these objectives rather than treating them as competing priorities.

In efforts to increase harmonisation across international frameworks and actively pursue co-operation in designing activities that are mutually reinforcing, the OECD and the Spanish Ministry of Health co-hosted an expert-led AI in health Conference in Madrid on 28-29 May (OECD, 2026[45]), bringing together experts from across countries and partner organisations. The conference was designed to define a shared agenda for action; one that draws on lessons from other sectors in navigating the tension between speed, safety, and scale, and translates the existing body of knowledge into the collective steps that only co-ordinated action can deliver.

The next section summarises the Madrid Conference outcomes which led to the creation of the Expert-Led Madrid Action Plan (EL-MAP).

3 Madrid Conference proceedings

Madrid Conference for the responsible scale of AI in health

In partnership with the Ministry of Health of Spain, the OECD convened an international conference on scaling AI in health in Madrid on 28-29 May 2026. The conference was attended by 142 experts, from 26 OECD Members, 8 accession and partner countries, and 35 international partners (see 4Annex A). Participants were nominated through various channels with the aim of ensuring multi-disciplinary and geographic representation. Collectively, experts brought expertise from academia, industry, public sector, civil society, and patients' and clinicians' representatives.

Programme and working sessions

Coinciding with broader international efforts to preserve a human-centred approach to AI's development, the conference was organised around three sessions that explored fundamental areas **to earn trust, enable what works** and **prevent harm**. To incentivise knowledge sharing and group discussions, the second and third sessions were organised as breakout groups, during which the experts discussed challenges and leading practices. This resulted in expert advice on the urgent actions required to effectively scale AI in health.

Opening session: Setting the stage

The conference opened with remarks from Spain's Secretary of State for Health (Javier Padilla Bernáldez) and the OECD's Deputy Secretary General (František Ružička) as well as pre-recorded addresses from the Health Ministers from South Korea (Jeong Eun-kyeong) and Australia (Mark Butler). Across the remarks, the objective was set, summarising the challenges as described in Section 1 (see Beyond technology: Why AI struggles to scale in health.

Collectively, the speakers outlined the desired outcomes of the Conference:

- Build a shared understanding of gaps in scaling AI in health;
- Define a collective vision of AI-enabled health systems;
- Surface what experts are doing and where transferable practices exist;
- Agree on foundations for a concrete action agenda.

Collectively, the group was tasked with formulating an expert-led Action Plan. This would provide a clear signal for action to reduce fragmented guidance on the effective scale of AI in health.

First working session: Earning Trust

The first session focussed on **Earning Trust** in AI systems sharing perspectives from the public (including youth), patients, providers, health systems and industry on the future of health systems. The session featured a keynote address from Jennifer Dixon (CEO, The Health Foundation) and the release of a paper

series on AI governance for young people from the Digital Transformation for Health Lab (Digital Transformations for Health Lab, 2026[46]).

There were several key takeaways from the first session by participants. First, **the effective scale of AI will happen at the speed of trust** (Binesmael et al., 2026[47]). That is, there is a need for increased involvement of patients and providers in the design and deployment of solutions, including the need for formal "change management" programmes. The French Citizen Assembly for the Digitalisation of Health (*Assises Citoyennes du Numérique en Santé)* and the Canada *Declaration of Personal Health Data Rights* were cited as examples on which to support trust-building (Ministère de la santé, 2025[48]; Patients' Annual Summit, 2026[49]). It was also noted that foundational medical ethical and human rights principles – principles that help to foster trust – already exist. There is no need to reinvent ethical principles – rather the challenge is applying them in practice.

Second is that **the public are already direct users of AI solutions**. 35% of the public across 16 countries report using AI for health purposes before consulting a doctor (Edelman Trust Institute, 2026[9]). Action is necessary to support public use of these systems by improving public awareness, access, and understanding of these platforms. The outcome is for the patient to be able to safely use AI solutions as part of their overall health journey. Programs like Finland's *Elements of AI* (a free on-line course to learn about AI) was given as an example of how to address this area (Elements of AI, 2024[50]).

A surprising finding from the discussion is that **youth populations are less keen on AI-based solutions**, given their higher exposure to news and their concerns about job displacement (Thornton et al., 2024[51]). Despite that, few strategies acknowledge youth populations as requiring special consideration. The message from the experts was that if we want to secure the future, there is need to focus more on the implications of AI for youth populations.

In addition, **leveraging AI for public health purposes was identified as a blind spot** throughout the discussions. While AI has the potential to support disease surveillance, health promotion, and population-level interventions, most applications remain focussed on healthcare delivery, such as diagnostics and clinical decision support. It was also highlighted that algorithmic amplification, where AI solutions amplify the most observed – not necessarily the most accurate – information, through the maximisation of young people's engagement, poses a real public health issue (Mori, 2025[52]). Platforms can inadvertently promote misleading health content to the detriment of young people's health (Digital Transformations for Health Lab, 2026[46]).

There was also a **call to help design the workforce of the future to support an orderly transition**. It was acknowledged that, in the future, the traditional roles of doctors and nurses will transition and be better integrated with AI. New specialist and hybrid positions will also be created, and that there will be a need to invest more in supporting functions (e.g. developers, data architects) so that the front-line uses of AI can deliver optimal benefits. Remuneration models would also need to adapt, requiring collaboration across stakeholders to develop approaches and advance this work.

Finally, **the necessary role of the private sector** was acknowledged as a key partner in implementation of AI in health. Industry can contribute expertise, investment and implementation capacity, while governments, providers and the public help define health system needs, safeguards and public assets, including protected health data. These collectively provide the enabling conditions for innovation.

Second working session: Enabling What Works

The second session focussed on **Enabling What Works,** reflecting that there is significant expertise in health in integrating novel technologies. The session featured a keynote address from Brian Anderson (CEO, Coalition for Health AI) and four parallel breakouts to discuss actions to (a) establish trusted data and digital collaboratives; (b) align needs, opportunities, and evaluation; (c) accelerate integration and

scale; and (d) enable competitiveness and adaptability. There were several critical insights from the discussions.

First was that the **future of AI will be built on a strong foundation of interoperable and accessible data**. Experts reflected that health is at a point where the harm resulting from the non-use of health data may outweigh the potential harm from its use. Further, divergence in approaches to health data governance and digital infrastructure negatively impact the ability to collaborate, innovate, and scale. **Experts called for clarity on valid secondary uses of health data and tools to simplify how and when data are made available for those purposes** while maintaining strong trust, consent, privacy, and cyber security protections. This echoes OECD work highlighting the need for greater convergence of (health data) governance frameworks across jurisdictions and harmonisation of national procedures for the secondary use of health data for public-interest purposes (OECD, 2025[53]), as well as the OECD Recommendation on Health Data Governance, which calls for processes that support privacy-protective data access and use (OECD, 2016[54]). Participants also noted Canada's emerging framework on data-related harms (Government of Canada, 2026[55]), and the European Health Data Space Regulation as examples of efforts to clarify and enable secondary uses of health data (European Commission, 2025[56]).

Second is to assure that **the right incentives are in place to support a shift from technology-centric innovation to needs-based innovation** with an emphasis on enabling data re-use. It was acknowledged that while pilots may be useful, those without a clear path of how they would scale efficiently and effectively are wasteful activities. Several countries (France, Lithuania, Norway, Spain) noted examples of how they are using incentives differently to achieve this aim. This should be **supported by an economic analysis of the potential economic and human benefit from AI in health** – and what it would take to get there.

Among other insights, the group also noted the **use of regulatory sandboxes to help accelerate innovation**. These tools allow for innovation in a controlled space to understand the interaction between novel technologies and legislation, to assure the safety and effectiveness of solutions. Such sandboxes are already in place in the United Kingdom, the United States, and several other countries. This was noted as a capability that could benefit from scale.

Third working session: Preventing Harm

The third session focussed on **preventing harm,** reflecting the human aspect of health where innovation can both cause and prevent better health outcomes. The session explored actions that could optimise human and economic outcomes while protecting patients, providers, and systems from harm. The session featured a keynote address from Ricardo Baptista-Leite (CEO, HealthAI – the Global Agency for Responsible AI in Health) and four parallel breakouts to discuss actions to (a) embed privacy and security by design; (b) preserve human oversight; (c) support pre- and post-deployment safeguards; and (d) facilitate continuous learning. There were several critical insights from the discussions.

First, there is a need for leadership among health systems to listen to and incorporate various perspectives across industry, developers, policymakers, and the public. While many countries are developing approaches to AI governance in health, there is considerable variation in the institutional arrangements, oversight mechanisms and processes used to guide the development and deployment of AI, as well as in how their effectiveness is assessed at local, regional and national levels. There is an opportunity to collaborate and share insights in how the governance of AI is operated and measured.

Further, progress was noted on **pre-market authorisation and post-deployment monitoring of AI solutions**, learning from approaches used for medical devices or pharmaceuticals to detect and address safety issues quickly and effectively. The group noted significant progress being made by HealthAI with their initial set of Pioneer countries in their Global Regulatory Network (HealthAI - the Global Agency for Responsible AI in Health, 2026[57]), where participating countries commit to strengthening governance

capacity for AI in health solutions and co-developing a Global Public Directory of registered AI solutions in health as well as an Early Warning System for adverse events associated with deployment.

The panel also noted the need to **strengthen cyber-security protections**. Cyber-attacks are increasingly becoming more sophisticated and can be characterised as a technological "arms race" where AI is both being used to enhance attacks and to strengthen defensive capabilities to protect against attacks. The potential emergence and wider adoption of quantum computing could create both opportunity and risks for health systems. Preparing human networks to share insights and mutually strengthen cyber-resilience was noted as an urgent area of action.

Closing panel and remarks

The penultimate session featured a panel of high-level speakers from a spectrum of geographical regions (Europe, Latin America and Africa). The panel reflected on:

- How this effort would help accelerate the effective scale of AI through better co-ordination across regional and international networks;
- How this timely Expert-Led Madrid Action Plan could act as an enabler in translating general aspirations into a more technical and governance-oriented conversation to effectively scale AI in health;
- How the Expert-Led Madrid Action Plan would help provide a clear signal for collaboration while allowing regions and countries to tune it to local needs; and
- How a collaborative approach would be helpful for scalability and trans-national collaboration.

In the final session, the OECD's Chair of the Health Committee (Chris Mullin) and Spain's Minister of Health (Mónica García Gómez) thanked participants and organisers while expressing optimism about next steps in collective efforts.

Key themes and identified actions by the experts

In summary, across the sessions and discussions, experts were able to link the key challenges raised by participants with the desired outcomes and the actions required to achieve those outcomes. Themes can be summarised in three parts:

- Establish and sustain trust
- Strengthen foundations
- Develop economic and financial models

Establish and sustain trust

Experts noted that scale only happens at the speed of trust. All health system actors need to be considered as well as their interactions, particularly as health systems undergo major transformation that needs to be anchored in a human-first approach. There were three main areas that would benefit from a collective approach.

First is **co-design** of use cases that would reflect not only where AI could be integrated into health systems, but also which needs it should address and what desirable solutions should look like. This would require health systems, practitioners, patients, policymakers, payers and developers to collectively define the problems to be solved, the outcomes to be improved, and the care pathways or public health functions where AI could add greatest value. This approach would learn from the mistakes of the initial waves of the digitalisation of health that delivered digitised solutions such as scanning paper records or moving services to the cloud, rather than digitalising health by re-designing workflows and care models with health

practitioners and patients. Those mistakes fragmented health data, added administrative burden to practitioners, and failed to realise the promise of digitalisation. Co-designed use cases could provide a clearer focus for collaborative action to scale up solutions with the greatest human and economic value.

Second, experts noted a need for **capacity building** and upskilling among users (including the public, patients and healthcare professionals) to understand how their role would contribute to the effective scaling of AI in health. While this is often described as co-building AI literacy, it also requires strengthening data and digital literacy to optimise effectiveness. Experts noted that this would go beyond patient-facing uses of AI (including building capacity among the public) to roles involved with the procurement, management, and oversight of AI systems across primary and secondary uses of AI. Experts noted that building capacity is not enough – there is an opportunity to work with the AI development community to simplify the use of AI for health in ways that foster clarity, use, safety and trust.

Third, experts reflected on the opportunity for better **collaboration across sectors and stakeholders** to bring forth the human and economic value of AI in health. The public sector is often the steward of health system data and digital infrastructure necessary for effective AI in health solutions. The private sector often has the resources and risk structures to develop those AI in health solutions. Civil society (including providers and the public) can help provide guidance for organisations or collaborations to foster trust in their design and execution.

Strengthen foundations

"For AI to be useful, it must be supported by an enabling environment" (United Nations, 2026[58]). In shifting from experimentation to scale, innovators integrate their solutions into the health ecosystem. This is similar to the approach in urban planning, where governments provide common foundations – such as electricity and water – that allow individual builders to leverage those foundations. This lowers cost for builders accelerates their ability to scale. There are also benefits for the community from upgrades to the foundational infrastructure (such as wastewater improvements). The effective scale of AI would benefit from a similar approach. There is opportunity to identify and strengthen the modern common foundations of health so innovators can take advantage of those when moving from experimentation to scale.

There are several common foundations for AI in health. A co-ordinated **policy** environment provides clarity in several areas – access to training data, methods for technology evaluation, and requirements for consent and data governance among others. Leveraging common **(data and digital) infrastructure** helps solutions to be interoperable, leveraging technology (e.g. cloud) services, and supports data to be used for care, planning, public health, or innovation with appropriate protections. Following a common approach for **AI life cycle management** – learning from the software development life cycle – will support clarity for developers from design through development, evaluation, deployment, post-market monitoring, and subsequent improvement.

Another foundational aspect for AI in health is **leadership** – the role that helps to assure clarity around accountability, addressing barriers and risks to adoption, providing incentives to align with foundations among other areas, and encouraging collaboration toward common objectives. Leadership can help transform the adoption of AI in health from a series of isolated innovations competing for limited resources to a co-ordinated set of activities that are collectively designed to achieve the desired human and economic outcomes.

Finally, AI in health will benefit from supporting **adaptability for emerging technologies and opportunities.** Experts reflected that change is the new normal. Solutions should be designed to adapt to new capabilities (e.g. precision medicine) and threats (e.g. cyber-attacks). This could impact infrastructure design, policy structures, and leadership incentives.

Develop economic and financial models

The short-, medium-, and long-term human and economic benefits from AI should be understood, along with the incentives that would help to effectively and efficiently deliver sustained value.

Experts reflected that developing an **economic model** for AI in health will help support business cases for investment. This would benefit from improved measurement of the impact of AI in health solutions including through Health Technology Assessments and cost-effectiveness studies, considering the time frame for deployment, when benefits would accrue, and to whom.

This economic model would be accompanied by a model for **financing** AI in health. This could include incentives for the adoption and sustained use of AI in health, impacts on remuneration linked to the use of AI, and methods to cost- and value-share in the building of solutions that consider value, risk, and expenditure. It could also consider how the underlying business architecture of health systems may need to adapt so that reimbursement, procurement, workflow design and accountability arrangements incentivise the adoption of validated AI tools that generate measurable human and economic value.

An economic model would incorporate the economic benefits of re-using common foundations (as described above). Experts reflected that investing in common foundations (data and digital infrastructure, policy, lifecycle management, leadership, and adaptable capabilities) would create economies of scale by spreading substantial upfront investment costs across multiple AI applications. However, the economic model should distinguish between capital investment required to establish common foundations and the recurring costs required to operate, maintain, govern, and adapt them over time.

Shared infrastructure models, such as digital public infrastructure and telecom tower-sharing arrangements, demonstrate how upfront investments can be pooled while ongoing operating costs can be sustainably distributed among users. Applying a similar approach to AI in health could reduce duplication, lower the marginal cost of deploying additional AI use cases, and create more sustainable pathways for scaling AI across health systems.

This could be particularly valuable for low- and middle-income countries, where high upfront investment costs and limited operational resources often constrain adoption, and for the development organisations that support them. Stronger common foundations would also facilitate the re-use of data in the public interest, creating further opportunities to increase both the economic and societal returns on AI investment.

Toward an expert-led action plan

Over the Conference, in addition to identifying opportunities for collaboration, experts also provided examples of existing initiatives that are already addressing these themes. This demonstrates that there is real opportunity to accelerate action to build trust, strengthen foundations, and provide an economic basis for AI in health by working together. Many of the identified themes are already being addressed by emerging policies, governance frameworks, implementation tools, and collaborative initiatives worldwide. These existing activities provide valuable examples that can be adapted, expanded, and co-ordinated across experts and organisations to accelerate the effective scaling of AI in health. This would give guidance of emerging leading practices, while not being prescriptive.

These reflections informed the drafting of the expert-led Madrid Action Plan (EL-MAP) in the next section.

4 Achieving collective action through the Expert-Led Madrid Action Plan

Why co-operative action matters now

From work prior to and at the Madrid Conference, there was significant consensus among experts that the Action Plan needed urgency to address the thematic challenges with concrete actions. Those concrete actions should facilitate the achievement of a common vision and be guided by common principles. Experts in attendance at the Conference expressed consensus on the vision, principles, and action plan.

The urgency among experts was described as follows:

> *AI is already transforming health. It helps to detect diseases earlier, improve treatments, ease workloads, streamline operations, protect public health, and stimulate innovation. It also brings new risks, challenges, errors, legal and privacy concerns, and unclear responsibilities. Acting together will support transformation that unlocks human benefits while earning trust.*

A key theme for the Action Plan was the need to establish a clear signal for policymakers, industry, and civil society on the actions needed to enable the effective scale of AI in health. To date, the urgency to act has led to the development of multiple uncoordinated frameworks, leaving industry challenged to interpret them effectively and policymakers tasked with reviewing multiple approaches to determine which are best suited to their context. This slows the scale of innovation locally and impairs the ability to scale innovation across borders.

With that in mind, experts determined that it was important to identify a clear and coherent signal for action for industry and policymakers. This signal would translate into a collection of leading practices for the effective scaling of AI while considering the trade-offs associated with different approaches. The signal would also build on what already exists and works and only provide additional guidance where there are gaps in knowledge. **The signal produced would not be prescriptive** for either policymakers or industry; however, it could inform country-led actions that also support international collaboration and simplify the ability to scale across borders.

Having established urgency and an approach to the strategy, experts agreed on a common direction for the desired signal. This would act as a guiding vision for the effective scale of trustworthy AI in health.

Expert agreement on a shared vision for AI-power in health

Effective and safe scaling of AI in health will transform health systems, resulting in:

- **People-centred health:** People will be empowered to use their data and AI safely to achieve better health outcomes, supported by integrated healthcare teams using the most up-to-date knowledge.
- **Health for everyone:** Health systems will effectively scale trustworthy AI to advance people-centred access to the full range of quality health services, ensuring all people receive the care they need, when and where they need it, without financial hardship.
- **Dynamic action:** Health professionals, researchers, health system management, patients and innovators will work together to match human needs with opportunity through trusted use of information and AI to protect and promote public health, improve the effectiveness of care and prevention pathways, and accelerate the translation of scientific discovery into action.

This vision will be achieved through **collective action** across organisations, governments, civil society, and industry working co-operatively with **mutual trust and respect for sovereignty**.

This vision reflects that action will be designed to support better care for individuals and communities, while enabling analytical applications of AI for health system operations, public health management, and research and innovation.

Experts also agreed that action should follow agreed guiding principles. The OECD AI Principles, adopted in 2019 and updated in 2024 (2026[59]), include five **value-based principles**:

- Inclusive growth, sustainable development, and well-being
- Human rights and democratic values, including fairness and privacy
- Transparency and explainability
- Robustness, security, and safety
- Accountability

In addition, the OECD AI Principles included **recommendations for policymakers**:

- Investing in AI research and development
- Fostering an integrated AI-enabling ecosystem
- Shaping an enabling interoperable governance and policy environment for AI
- Building human capacity and preparing for labour market transformation
- International co-operation for trustworthy AI

Subsequent to the publication of the OECD AI principles, several organisations developed their own principles introducing sector-specific nuances. Experts at the Conference reflected on these principles.

Actions will be Guided by Common Principles in Health

In 2024, HealthAI – the Global Agency for Responsible AI in Health synthesised the G20 (OECD AI, 2019[60]), WHO (WHO, 2021[61]), OECD AI (OECD, 2026[59]) and World Bank (World Bank, 2025[62]) principles (among others) to identify a common set of nine principles. These are functionally equivalent to the OECD principles, applied to the design and deployment of health AI (HealthAI - the Global Agency for Responsible AI in Health, 2025[63]). These are synthesised here:

- Promote human and societal well-being
- Respect fundamental rights and human dignity
- Preserve human agency and enhance lifecycle oversight
- Establish transparent and understandable governance and processes
- Foster clear accountability and proportionate responsibility mechanisms
- Optimise and improve health outcomes while minimising harm
- Ensure fair and secure access for robust and safe outcomes
- Consider long-term human and financial impacts
- Promote participatory governance across diverse stakeholders

Experts, building on the OECD AI principles (2026[59]) for *International co-operation, Sustainable development* and an *AI-enabling ecosystem*, agreed that additional principles were important to include, given recent experience with AI in health and the importance to develop pathways for safe and effective scale.

- Respect national sovereignty and value international collaboration
- Leverage what works and scale fiscally sustainable solutions
- Invest in data foundations that are accurate and reusable, for AI that is both safe and scalable

Expert-Led Madrid Action Plan (EL-MAP)

The above are foundations for the Action Plan, to support its collaborative development and ongoing evolution. Below are the actions in EL-MAP, which address the challenges identified through the course of the Conference. Each action is described with several components:

- **Rationale:** Description of challenge to be addressed by the action and why the action will help.
- **Possible outcome:** Possible deliverable based on the rationale.
- **Sample existing initiatives:** Examples of relevant initiatives shared by participants.

The actions below are organised by three key themes identified by experts (summarised in Section 3) to guide collective action:

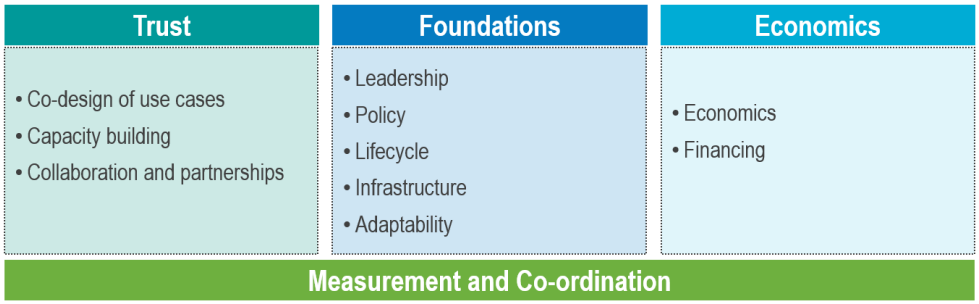
- **Establish and sustain trust** by understanding where AI could be used, how health systems will be re-oriented around AI, and what competencies and capacities are required among the public sector, private sector, and civil society.
- **Strengthen foundations** by simplifying the path from AI experimentation to system-wide scale. Pilots can be delivered in isolation; however, achieving the benefits of AI in health at scale depends on integrating AI solutions into the digital health ecosystem. The digital health ecosystem is described by foundations of policy, data and digital infrastructure, understanding of AI life cycle

management, adaptability for future change, and practices for oversight of integration of AI in health.

- **Develop economic and financial models** by estimating the economics of AI in health, drawing from broader cross-border and cross-industry experience, as well as describe leading practices to incentivise the effective adoption, scale, and use of AI in health solutions.

Underlying these actions is an additional key supporting action for **measurement and co-ordination** of the readiness, use, and impact from the adoption of AI in health.

Figure 1. Identified key priority themes for collective action



Actions to establish and sustain trust

ACTION 1: Co-design use cases for AI-powered, person-centric learning health systems (Co-design of use cases)

Rationale: To date, AI in health has largely focussed on technology-driven innovation. That is, the innovation is developed first and then health systems see how to integrate the innovation into their systems. This action would shift the focus toward needs-based innovation, where AI use cases are articulated and aligned with linguistic, demographic and disease-burden needs, as well as priorities for improving population and patient outcomes, provider experience, or other core measures of health system effectiveness.

Possible outcome: Document "typical" use cases where AI may be employed to deliver better care, research and innovation in health. Includes for example use cases for patient care (including direct patient use of AI) and use cases for personal decision support, clinical decision support, administration, health system management, population health protection, and innovation. Considers roles across the use case including accountability, consent, and communication. Once use cases are defined, action could be taken to focus on the core use cases that generate the greatest benefit to individuals and populations with the lowest risk, and appropriate readiness to develop, adopt, and scale. Could include the development of "catalogues" or "maps" that simplify discoverability of AI initiatives for leverage and re-use.

Sample existing initiative(s):

- Although not health-specific, the United Kingdom's AI Growth Lab provides a model for testing AI use cases through collaboration between users, regulators and developers before large-scale deployment (Gov UK, 2025[64]).
- The first large-scale mapping of AI initiatives across publicly funded healthcare in Sweden, Norway, Denmark, Finland, and Iceland. The framework categorises over 800 AI initiatives into eight use cases and three stages: concept, pilot, and routine operation (AI Sweden, 2026[65]).
- WHO/Europe mapped the use of AI in healthcare across 50 WHO European Region Member States, including common AI applications and use cases (WHO Regional Office for Europe, 2025[66]).
- SmartCHANGE is a Horizon Europe project developing trustworthy and explainable AI tools to predict long-term cardiovascular and metabolic risks in children and adolescents. It illustrates a person-centred AI use case that combines participatory design, privacy-preserving methods, explainability and real-world validation (European Commission, 2023[67]).
- France conducted a comprehensive mapping exercise of AI use across public administrations, reviewing existing AI initiatives, governance arrangements, use cases, barriers and productivity impacts through surveys, interviews and benchmarking with foreign administrations and the private sector. The exercise included a dedicated assessment of the health and social sector, examining how regional health agencies, social security institutions and healthcare providers are using AI to support administrative, operational and service-delivery functions (Cunéo et al., 2026[68])
- Brazil's Ministry of Health has launched a national mapping exercise of AI initiatives across the health sector. By classifying initiatives according to health domain, technical approach, readiness level, risk, data use, oversight and financing, it provides a replicable method to establish a baseline of AI readiness and use, helping inform where AI can be aligned with health system needs and scaled effectively.

ACTION 2: Co-develop competencies and capacity to work with AI (Capacity building)

Rationale: Users of AI may be overwhelmed by the need to become more literate in many areas. The objective should be to increase literacy to a level that is sufficient for the specific AI use case and adapted to the professional role and user needs. It follows that AI developers should design their applications to meet people at their level of literacy.

Possible outcome: Document baseline "literacy" requirements for AI, data, digital, health for each of (1) the public and patients, (2) providers, (3) policymakers, (4) payers, (5) regulators, and (6) institutional leaders. This "literacy" baseline would be tuned to their role and emerging new roles to enable the effective scale and use of AI in health for prioritised use cases (see Action 1). Consider methods for delivering "literacy" programmes, ongoing reviews and updates of baseline to ensure optimal outcomes and minimal harm. Could work with industry to design solutions to reduce literacy burden on users, such as encouraging usability testing with intended users prior to deployment

Sample existing initiative(s):

- The University of Mons' AI in Belgium developed a Digital Medicine programme that embeds AI training within medical education to strengthen health professionals' ability to evaluate and responsibly apply AI tools in clinical practice (Pizzolla et al., 2023[69]).
- Data Saves Lives (DSL) is a multi-stakeholder initiative and led by the European Patients' Forum (EPF). Its aim is to raise patient and public awareness of the importance of health data, improve understanding of how health data is used, and foster effective use and good practices across Europe to ensure that AI systems are trained on high-quality health data (Data Saves Lives, 2025[70]).
- The European Patients' Forum AI Survey Report 2026 provides evidence on patients' AI literacy needs, trust requirements and communication preferences, helping inform patient-focussed education and capacity-building efforts for the effective use of AI in healthcare (The European Patients' Forum, 2026[71]).
- The IEEE Standards Association's Healthcare Professionals (HCP) AI Factsheet initiative aims to improve transparency and trust in AI in health AI by providing healthcare professionals with clear, standardised and clinically meaningful information that enables them to assess the intended use, capabilities, limitations and risks of AI tools (IEEE Standards Association, 2026[72]).
- Korea is strengthening AI literacy and workforce capacity across healthcare, government, industry and the wider public. Initiatives include practical AI training for public officials, interdisciplinary medical-AI education for specialised professionals, and a planned National AI Health Assistant to help patients better understand prescriptions, clinical records and medical terminology (HealthcareITNews, 2026[73]).
- Complementing the Slovenian AI Factory (SLAIF), the Slovenian Competence Center for Artificial Intelligence (KCUI) supports safe and effective AI adoption by providing a national entry point for AI knowledge, training, regulatory and technical advice, and practical use cases (KCUI, 2026[74]).
- Belgium's public health institute, Sciensano, has established an internal AI Board to strengthen organisational capacity for AI adoption. The Board promotes AI literacy through training and supports the development of AI skills across the organisation (Sciensano, 2026[75]).

ACTION 3: Co-facilitate multi-party co-operation and partnerships (Collaboration and partnerships)

Rationale: Scaling AI in health is a significant task requiring many actors to collaborate toward a common goal. Establishing blueprints for structures that facilitate co-operation will help remove roadblocks to scale and prevent wasteful (and potentially harmful) duplicative activities.

Possible outcome: Documents baseline leading practices for co-operation and partnership across and between public sector, private sector, and civil society to advance evidence-based innovation. Such partnership could share responsibility, risks, and value created while improving patient outcomes. Includes practices for non-competitive environments and/or collective impact to encourage co-operation among legal entities and optimise common outcomes while minimising harm. Also includes leading practices for participatory engagement models with the public and health workforce across the full AI life cycle.

Sample existing initiative(s):

- The European Charter of Patients' Rights provides a shared framework for patients, healthcare providers and policymakers around core principles of patient autonomy, transparency and participation, helping build the trust and common understanding needed for patient-centred innovation, including AI-enabled healthcare (European Commission, 2002[76]).
- The proposed EU Charter of Digital Patients' Rights illustrates how a shared rights-based framework can provide common principles for patients, healthcare providers, policymakers and technology developers, supporting trust and effective adoption of AI-enabled healthcare (van Kolfschooten, 2024[77]).
- Canada's Declaration of Personal Health Data Rights provides a shared framework for patients, healthcare providers, governments, researchers and technology developers to align around principles for access, control, transparency and effective use of health data, supporting trust-based collaboration in data-driven health innovation (Patients' Annual Summit, 2026[49]).
- Under the AI Basic Healthcare Strategy, Korea is advancing collaborative pilot projects, including public healthcare AI platforms and an integrated emergency AI platform, to support joint implementation across ministries, public institutions and healthcare providers (Korea.net, 2026[78]).

Actions to strengthen foundations

ACTION 4: Identify leading practices to oversee and lead the integration of AI in health systems (Leadership)

Rationale: Most AI in health activities have been bottom-up, starting with pilots and running into difficulty with scaling. Less than 30% of OECD countries have implemented a form of formalised AI in health leadership. This action would identify leading practices (including from other sectors) where leadership has been established for the effective scale of AI solutions. This could include oversight of the evaluation of AI in health initiatives that consider safety, impact, and scalability to help focus efforts on scaling what works and adds human and economic value. It could also consider practices to enable proportionate assurance, oversight, and governance requirements appropriate for the risk profile of the AI solution.

Possible outcome: Documents leading practices for decision structures to support the effective scale of AI while doing no harm. Decision structures would clarify accountability for decision making and issue resolution including identification and resolution of common barriers to the effective scale of AI in health.

Sample existing initiative(s):

- The Oviedo Convention provides a legally binding human rights framework for the application of biology and medicine, establishing principles to safeguard human dignity, autonomy, informed consent, privacy, equity, and the protection of vulnerable individuals in healthcare. While not AI-specific, its principles provide an important foundation for the effective integration of AI in health by guiding approaches to human oversight, accountability, transparency and the protection of patients' rights in AI-enabled care (Council of Europe, 1999[79]).
- Duke's AI governance model demonstrates how health systems can build the institutional capacity needed to scale AI safely by embedding structured evaluation, accountability and monitoring throughout the AI lifecycle. This approach can support leaders in identifying valuable use cases, managing risks and building trust as AI becomes integrated into clinical care (Duke University, 2025[80]).
- The OECD's *Scaling Artificial Intelligence in Health* report provides a strategic framework for moving from experimentation to effective scale, identifying key enabling conditions at the system level, including governance, data access, workforce capacity, evaluation and trust (OECD, 2026[5]).
- Korea's National AI Strategy Committee supports cross-government co-ordination on AI policy, while the AI Basic Healthcare Subcommittee brings together relevant ministries and public institutions to guide healthcare AI scale-up (Republic of Korea, 2026[81]).
- Brazil has consolidated national leadership for digital health and AI within the Secretariat of Information and Digital Health (SEIDIGI) of the Ministry of Health, which holds a formal mandate over health data governance, interoperability, telehealth, data integration and the Ministry's AI policy (Ministério da Saúde Brazil, 2025[82]).
- Although not specific to health, the Australian National AI Centre (NAIC) illustrates how a national leadership mechanism can support AI adoption through best-practice guidance and direct engagement with businesses, not-for-profits, social enterprises and First Nations organisations (Australian Government, 2026[83]).

ACTION 5: Develop baseline policies that support the effective scale of AI in health (Policy)

Rationale: Innovators report challenges scaling AI in health across health facilities, regions, and countries due to inconsistent and poorly understood policies. This action will help the scale of AI in health solutions by providing greater clarity for innovators (and policymakers) for key policies. Further, this would help policies to be more compatible when scaling solutions within and across borders. This would also improve adoption by front line workforces with greater clarity for their individual accountability.

Possible outcome: Documents baseline guidance for the effective and safe scale of health AI across key policy areas for prioritised use cases (see Action 1). This could include areas such as (a) common language for policymaking, (b) risk classification of AI solutions, (c) medical device regulation, (d) health technology assessments, (e) testing and independent evaluation of AI solutions, (f) procurement, (g) model cards, and (h) legal frameworks – including the treatment of liability – among others. Guidance should recognise that not all AI is the same and be tuned based on context, as well as should be built on what already exists and is working.

- **Sample existing initiative(s):**
- CHAI's Applied Model Card illustrates how baseline governance requirements can support effective AI scale by ensuring that health AI applications are accompanied by structured information on their purpose, risks, performance and appropriate use. Such common documentation standards can facilitate procurement, oversight and comparison of AI solutions while strengthening trust among providers, patients and regulators (CHAI, 2026[84]).
- Ukraine's AI and Blockchain Sandbox, as part of the first large-scale application of the HUDERIA methodology, illustrates how regulatory sandboxes can support the effective scaling of AI by enabling innovators and public authorities to assess risks, test governance approaches and develop practical tools before wider deployment (Council of Europe, 2026[85]).
- Although formal guidelines for conducting prospective, non-interventional AI evaluations (often referred to as silent trials) in healthcare settings are still lacking, silent trials provide a valuable approach for testing AI models in intended clinical environments without influencing patient care, generating evidence on local performance, safety, workflow integration and potential risks before deployment (Tikhomirov et al., 2026[86]).

- Health Data Governance Principles (HDGP) provide a globally recognised framework designed to support a rights-based approach to the management and use of health data. It provides operational guardrails that balance the necessary protections of individual data rights with the effective secondary use of data for innovation and AI deployment (Transform Health, 2026[87]).
- Informed by the Health Data Governance Principles, the Health Data Governance Legislative Blueprint provides a non-prescriptive resource to support the development of national and regional legislative and regulatory frameworks. It is complemented by a legislative and regulatory assessment tool (Transform Health, 2026[88]).
- Korea's AI Basic Act establishes legal requirements for high-impact AI and reinforces principles on safety, trustworthiness, security and risk management. This is complemented by proposed legislation on digital healthcare and health information use, as well as HIRA guidance on how AI-enabled medical technologies should be assessed for coverage and reimbursement (Information Technology & Innovation Foundation, 2025[89]).
- The Clinton Health Access Initiative is advancing collaborative work across five core deliverables to facilitate co-operation with a focus on LMICs. These are: (1) a data commons marketplace with federated learning, (2) a patient simulator for benchmarking and post-deployment monitoring, (3) paired procurement playbooks for governments and innovators, (4) a clinical decision-support "skills" repository, and (5) standardised product cards (analogous to model cards) for AI products (Clinton Health Access Initiative, 2026[90]).

ACTION 6: Develop baseline policies, processes, and approvals for the full AI in health lifecycle (Life Cycle)

Rationale: While there are documented AI in health lifecycles, these have not consistently been integrated into business and development practices. There is opportunity to describe the range of expectations at each stage of development of the AI in health lifecycle. This would be designed to optimise adoption while protecting safety. A life cycle could be developed that would be adaptable by country that defines responsibilities, considers risk levels and approval criteria, incorporates change management, and establishes minimum monitoring requirements throughout.

Possible outcome: Documents baseline expectations across the AI in health lifecycle, building on leading practices. Expectations would support trustworthiness for users and payers and could include efficient re-use of common resources (e.g. digital public infrastructure) to realise economies of scale from common investments. Lifecycle components could include (a) design and development of AI algorithms and tools, (b) independent evaluation and deployment for effectiveness and scale, (c) post-deployment monitoring, and (d) update of AI algorithms from continual learning among others.

Sample existing initiative(s):

- CERSI-AI (The Centre of Excellence for Regulatory Science and Innovation in AI and Digital Health) has been developing a standard model of the AI lifecycle from design to retirement. CERSI-AI is working with innovators, regulators, patients and the NHS to optimise the regulation of AI and Digital Healthcare to accelerate innovation that will improve people's lives (CERSI-AI, 2026[91]).
- Korea's Integrated Review and Assessment System for Innovative Medical Devices provides a concrete example of lifecycle management for AI-enabled medical technologies, linking early clinical access with real-world evidence generation and subsequent evaluation. Technologies recognised as safe and potentially valuable may enter clinical practice through temporary listing arrangements, with accumulated evidence later assessed through the New Health Technology Assessment before proceeding to standard National Health Insurance listing (HIRA, 2026[92]).
- The European Testing and Experimentation Facilities initiative supports the AI lifecycle by providing testing, validation, regulatory guidance and experimentation services for health AI and robotics in realistic healthcare settings, helping innovators move from proof of concept to safe clinical deployment at scale (TEF-Health, 2026[93]).

ACTION 7: Strengthen pre-competitive data and digital infrastructure with protection to support scale (Infrastructure)

Rationale: Data and digital infrastructure are the backbone of 21st century health systems and a pre-competitive foundation for scaling AI in health. Artificial Intelligence requires timely access to quality data and sufficient digital infrastructure for training, validation and deployment. Similarly, the operation of AI in production requires quality data inputs, secure hardware to operate AI algorithms, and digital connections to ensure that the right information is available to the right people, at the right place and time. Strengthening these shared foundations can support all innovators – from small enterprises to large corporations.

Possible outcome: Documents leading practices for developing and governing pre-competitive and digital infrastructure that enables the effective use of health data and digital infrastructure while assuring proportionate protections are in place. This would cover the range of accountability related to health data governance, (semantic and technical) interoperability, data quality, secure data access, cyber security, infrastructure management and value-sharing with a focus on common enabling foundations that support innovation across the ecosystem.

Sample existing initiative(s):

- The OECD Recommendation on Health Data Governance provides a framework for building trusted health data ecosystems by promoting privacy protection, secure data access, interoperability, transparency and effective governance arrangements. By supporting countries in establishing the institutional foundations for effective health data use, it helps create the enabling environment required for future data-driven innovation while maintaining public trust and protecting individual rights (OECD, 2016[54]).
- The European Health Data Space (EHDS) illustrates how shared digital infrastructure can enable large-scale data use by establishing common rules, standards and mechanisms for electronic health data access and exchange across Member States. By reducing fragmentation and strengthening citizens' control over their data, the EHDS creates foundations for future data-driven applications, including AI, while ensuring appropriate safeguards (European Commission, 2025[56]).
- Canada's Connected Care for Canadians initiative illustrates how national action can address fragmentation in a federated health system by improving interoperability and enabling more seamless exchange of health information across provinces and territories. By strengthening the connectivity of health data ecosystems, the initiative supports more co-ordinated care and creates conditions for

effective secondary use of health data for research, innovation and future AI applications (Government of Canada, 2026[55]). In this context, the pan-Canadian health data platform, VITAL, is building the infrastructure needed to connect clinical data from hospitals across multiple provinces, enabling AI-driven discovery and advancing precision medicine (Government of Canada, 2026[94]).

- Brazil's National Health Data Network (RNDS) provides a national interoperability platform to connect health information systems across the country. Decree No. 12560/2025 further strengthens this foundation by formalising governance, interoperability and data-sharing arrangements, creating enabling conditions for more integrated care and the effective scaling of AI in health (Presidency of the Republic of Brazil, 2025[95]).
- The United Kingdom's Cyber Security and Resilience Bill demonstrates how governments can strengthen the reliability of digital infrastructure by establishing baseline cybersecurity, risk management and incident reporting requirements. Such approaches are essential to ensuring that increasingly connected health information systems remain secure and resilient as digital health services expand (Department for Science, 2024[96]).
- Spain's Sectoral Data Spaces Programme supports the development of trusted data-sharing infrastructures and governance mechanisms across strategic sectors, including health. By funding data-space demonstrators and associated use cases, the programme seeks to strengthen interoperability, data access, and secure data reuse, creating the digital foundations required for AI-enabled learning health systems (Ministerio para la Transformación Digital y de la Función Pública, 2026[97]).
- Korea is strengthening the data and computing infrastructure needed to scale AI in health, including through the planned Public Healthcare AI Highway and a National Health Data Hub integrating insurance claims and clinical data (Seoul National University Hospital, 2026[98]).
- Slovenia's AI Factory (SLAIF) provides shared national AI capacity, including high-performance computing, data access, tools, training and support services for researchers, public institutions and industry. Its health vertical illustrates how common digital and compute infrastructure can support AI development and scale across the health ecosystem (Slovenian AI Factory, 2026[99]).

ACTION 8: Enable effective adaptability to emerging capabilities (Adaptability)

Rationale: Health systems would benefit from considering artificial intelligence as an emerging capability, rather than a singular one-off innovation. This calls for putting into place policies and practices that can review and respond to those innovations at an appropriate pace to realise benefits while minimising predictable harms.

Possible outcome: Documents approaches for systemic review of emerging capabilities to support scale, for example, regulatory sandboxes and horizon scanning to assess the likelihood, impact and timing of emerging technologies (including quantum computing and genomics), and their people, policy, process, technical and cybersecurity implications. The aim is to optimise speed and value while minimising harm to individuals, communities and populations.

Sample existing initiative(s):

- Applied to healthcare, the OECD AI Principles provide a foundation for adaptive governance by enabling health systems to respond to rapidly evolving AI capabilities while maintaining safeguards for safety, accountability and human rights. Their risk-based and technology-neutral approach allows governance approaches to evolve alongside emerging clinical applications and new forms of AI-enabled care (OECD, 2026[59]).

Actions to develop economic and financial models

ACTION 9: Develop model for economics returns from AI in health (Economics)

Rationale: An empirical grounding for investments in AI in health is necessary to ground decision making in economics rather than hype. Such a model would need to consider socio-economic factors for availability and adoption of AI tools in addition to modelling for the timeframes under which benefit is expected to be realised. Modelling could be integrated with other economic considerations for changing population demographics.

Possible outcome: An economic model to estimate the potential return on investment for AI in health, with a focus on prioritised use cases (e.g. administration, prevention, innovation) and consideration of time horizon for returns. For example, considering short-term gains in provider well-being, patient experience, and reduced human effort (documentation time), medium-term gains from better direct health outcomes, and long-term gains from improvements in population health. This modelling should be complemented by real-world evaluations of costs and benefits to assess whether projected returns are actually realised once AI is deployed in practice, including by leveraging Health Technology Assessment approaches to assess clinical effectiveness, cost-effectiveness, workflow impact, and broader system value. Models should differentiate between parties bearing costs and capturing benefits, as these frequently differ. Further, models should consider total cost of ownership, operational sustainability, maintenance, monitoring, cybersecurity, training, and shared investment mechanisms.

Sample existing initiative(s):

- Rather than evaluating AI investments only at the level of individual tools, health systems need approaches that estimate the broader returns generated by common enabling assets (e.g. interoperable health data infrastructure, secure data-sharing environments and evaluation platforms). These models can help justify collective investment and inform value-sharing mechanisms across providers, researchers, innovators and public authorities (OECD, 2024[100]).
- RIHN 2.0 reimbursement in France ties conditional public funding for AI-enabled diagnostics to a mandatory, HAS-approved protocol demonstrating clinical utility, workflow impact, and economic value, before allowing progression to permanent reimbursement (ODELLE Technology, 2026[101]; Ministere de la santé et d'accès aux soins, 2024[102]).

ACTION 10: Develop considerations for financial management related to AI in health (Financing)
Rationale: The bottom-up approach to AI innovation in health has led to fragmented pilots with limited ability to scale and integrate into routine care. As health systems move from experimentation to sustained use of AI, financing models and incentives need to evolve to support the effective integration of AI-enabled solutions into healthcare delivery. This includes incentives for health providers and facilities to adopt and appropriately use validated AI applications, mechanisms that encourage patients and users to engage with AI-enabled services, and incentives for innovators to develop solutions aligned with health system needs. These changes form part of a broader transformation in how future health systems finance, reward and sustain new models of care.
Possible outcome: Documents leading practices for financing AI-enabled health systems. Considers (a) shifts in remuneration to incentivise the appropriate use of authorised AI applications, (b) incentives for the co-operation across health facilities, researchers, and innovators to use and re-use common foundational health assets, (c) expenses to sustain ongoing safety of AI in health solutions, and (d) the role of finance in risk- and value-sharing.
Sample existing initiative(s): – As part of the revision of the national health insurance reimbursement system, Japan introduced financial incentives for hospitals to adopt and use generative AI for clinical documentation by incorporating its use into staffing calculations linked to reimbursement (Ministry of Health, Labour and Welfare Japan, 2026[103]). – Korea has established National Health Insurance evaluation and reimbursement principles that recognise the potential additional value of AI-enabled medical technologies. HIRA determines whether these technologies are covered under existing benefits or require New Health Technology Assessment, while practical experience with additional reimbursement for AI-enabled medical technologies is still emerging (HIRA, 2026[92]).

EL-MAP support through measurement and co-ordination

ACTION: Measuring and co-ordinating EL-MAP across experts and organisations
Rationale: Leading practices for measuring and developing key indicators around health AI have yet to be established. Developing them would support quantification of health AI's usage and benefits. In turn, this would support evidence needed for effective scale-up, as well as enable routine monitoring and evaluation of AI in health implementation.
Possible outcome: Supports EL-MAP through effective measurement, evaluation and monitoring of AI use cases, assessing their readiness, usage, and impact at individual and population levels. This could support evaluation of human and economic benefits across sectors and countries. Measurements could include indicators for preparedness, safety, experience, health outcomes, well-being, economic impact, and sustainability.
Existing initiative(s): – OECD (forthcoming[6]).

Moving toward the future

Participants at the Madrid Conference were mutually committed to advancing the effective scale of AI in health. Their contributions before, during, and after the Conference have led to the Expert-Led Madrid Action Plan (EL-MAP).

Over the coming months, experts and international organisations will collaborate on *how* and *when* to proceed with the action plan. This will identify regional networks or organisations that are already providing leadership against specific actions as well as where formal mandates need to be agreed and funded. EL-MAP could represent a change in how disparate organisations and experts collaborate respectfully and collectively as well as foster learning from each other – in particular where there are gaps in levels of maturity.

The OECD could support this initiative with its expertise in economic analysis, financial modelling, health data governance, and measurement and co-ordination among other areas. Further, the OECD could contribute to measuring the usage of AI in health including across prioritised use cases and monitor their impact related to achieving human and economic outcomes across sectors and countries.

While AI and related technologies in health are evolving at an unprecedented pace, taking the time to establish this strong collective action will create the clear signal so that investments are less duplicative and resources can be better used and re-used to deliver future health needs. The risk of continuing the

current path is that health systems will develop local solutions serving local populations but are unable to leverage foreign expertise to support broader expansion and benefit wider communities.

Experts at the Conference left with a clear sense of **urgency to act together to realise the promise of AI for the benefit of all**. The Expert-Led Madrid Action Plan is an important first step to realising this vision.

Annex A. List of participating countries and international partner organisations

Countries	International partner organisations
Australia	Africa Centres for Disease Control and Prevention
Belgium	All.Can Canada / Save Your Skin Foundation
Bulgaria	Coalition for Health AI
Brazil	Council of Europe
Canada	Digital Transformations for Health Lab
Costa Rica	Duke University School of Medicine
Croatia	e-Health Innovation Center
Czechia	European Commission
Denmark	European Institute for Innovation through Health Data
Finland	European Medicines Agency
France	European Patients Forum
Ireland	Fraunhofer Heinrich-Hertz-Institut
Italy	Hasso Plattner Institute
Japan	Health Data Forum
Korea	Health Foundation
Latvia	HealthAI – the Global Agency for Responsible AI in health
Lithuania	HIMSS
Luxembourg	Imperial College London
Netherlands	Johnson & Johnson Innovative Medicine
Norway	La Paz University Hospital
Poland	Movement Health Foundation
Portugal	Natera
Peru	Roche
Romania	Takeda Pharmaceutical International AG
Singapore	THL – Finnish Institute for Health and Welfare
Slovak Republic	Transformation Health
Slovenia	Unitaid
Spain	University of Copenhagen
Sweden	University of Glasgow
Switzerland	University of Liverpool
Türkiye	University of Mons
Thailand	Vatican
Ukraine	WHO Regional Office for Europe
United Kingdom	World Economic Forum
	World Medical Association

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OECD Artificial Intelligence Papers

Proceeding report from Madrid conference on the responsible scale of AI in healthcare

Scaling fast while doing no harm

No. 66

Artificial intelligence is already transforming healthcare, by helping clinicians reduce administrative burden, improving diagnostic safety, and supporting population health. Yet despite growing investment and enthusiasm, most health systems are still struggling to translate AI's promise into measurable improvements. Bringing together 142 experts from 34 countries and 35 partner organisations, the Spanish Ministry of Health and OECD co-hosted a conference on the responsible scale of AI in healthcare. The conference sought to move the conversation beyond whether AI should be adopted and focus instead on how it can be scaled safely and effectively. The central message was clear: successful AI adoption relies on facilitating trust, strengthening foundations, and developing sustainable economic models for the digital age. This proceedings report summarises the outcomes from the conference. At its heart is the Expert-Led Madrid Action Plan (EL-MAP), a practical framework comprising ten priority actions to guide governments, industry, healthcare leaders, and civil society in accelerating the effective scale of AI in health. For policymakers, innovators, health leaders, and anyone interested in the future of healthcare, this report offers an important and timely vision for how international collaboration can ensure AI delivers better health, better care, and better value for all.

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