World Health Organization

European Region

Artificial intelligence is reshaping health systems: country profiles

Co-funded by the European Union

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Abstract
Amid rapid technological change, the health sector in the WHO European Region is witnessing the growing influence of artificial intelligence (AI). This transformation offers opportunities to enhance health outcomes, reduce system pressures and improve care delivery, while also raising critical questions of ethics, governance, responsibility and safeguards to ensure safe and trustworthy adoption. This collection of country profiles – based on the 2024–2025 Survey on AI for Health in the WHO European Region – examines how Member States are navigating this evolving field.

The profiles explore six themes: i) strategic and operational context, ii) engaging stakeholders and building workforce capacity, iii) regulatory and legal landscape, iv) health data governance, v) applications and opportunities of using AI for health, and vi) barriers to AI uptake in health care. Findings highlight both opportunities and barriers, from improving patient care and health outcomes and reducing pressure on the health-care workforce, to persistent challenges such as legal uncertainty, financial affordability and data quality. Informed by broader developments, including the European Union AI Act, the evidence provides a foundation for strengthening ethical safeguards and governance to guide the responsible integration of AI into health systems.

Keywords
ARTIFICIAL INTELLIGENCE; DIGITAL HEALTH; HEALTH INFORMATION SYSTEMS

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Contents

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A guide to the country profiles

Background

This report represents the first coordinated effort to understand the current landscape of artificial intelligence (AI) in health care across the WHO European Region at country level. It seeks to provide insights into regulatory and policy developments, identify key barriers to adoption, and assess both the extent and priority areas of AI uptake among Member States. The report also explores stakeholder engagement, collaborative initiatives and capacity-building efforts (such as training programmes) that are critical to supporting the effective implementation of AI in health systems.

As the first undertaking of its kind, the findings offer a valuable evidence base for policy-makers, supporting the development of governance frameworks, addressing adoption challenges and ensuring that AI technologies are implemented in ways that meet the unique needs and priorities of national health systems.

Further information on the status of AI for health in the WHO European Region is available here: https://iris.who.int/handle/10665/383509.

Methodological considerations

The WHO Regional Office for Europe initiated the Survey on AI for Health in June 2024, with data collection remaining open through to March 2025. To ensure accessibility, the survey was made available in two formats: a digital version for wide online availability and a paper-based version for Member States that preferred a traditional format. Recognizing linguistic diversity across the Region, the survey instructions and questions were provided in both English and Russian.

All 53 Member States of the WHO European Region were formally invited to participate. Each country was encouraged to nominate a national survey coordinator to support active participation. These coordinators were instrumental in identifying relevant national experts in digital health and AI and in coordinating the submission of their contributions.

Of the 53 Member States, 50 participated in the survey, yielding a response rate of 94%. For certain questions, responses were contingent on prior answers: for example, only Member States that confirmed having a cross-sector or sector-agnostic national AI strategy were subsequently asked whether they had adopted a formal definition of AI. In such cases, only respondents meeting the initial criterion were included in the denominator when calculating percentages.

The country profiles present data under six AI for health themes: i) strategic and operational context, ii) engaging stakeholders and building workforce capacity, iii) regulatory and legal landscape, iv) health data governance, v) applications and opportunities of using AI for health, and vi) barriers to AI uptake in health

care. While these individual theme groupings provide insights, it is recommended to consider responses across all themes for a more overarching perspective and to obtain a fuller understanding of the landscape of AI for health in the WHO European Region. The six themes are outlined in more detail below.

Strategic and operational context

This theme comprises national AI strategies, policies, action plans or equivalent, as well as their oversight and implementation. Its key indicators include the existence of national strategies for AI in the health sector and/or across sectors. It also highlights the different modalities through which national AI initiatives take place, either through existing (or new) government agencies, among others, and if there are legislative measures for governance of AI in the health sector. Generally, data show country responses (in the form of "yes", "under development", "no", "do not know" or "not applicable"); the regional "yes" response (the average percentage of affirmative responses); the year of adoption and revision for the questions about an AI across sector (domain-agnostic) strategy; and year of adoption only for the national strategy on AI for the health sector.

For the question on issuing a national strategy, policy, action plan or equivalent for AI in the health sector, "yes" and "yes, but at the regional level only" were combined and reported as "yes". All responses indicating work in progress – such as "yes, under development", "no, but currently in development" or "no, but planned" – were standardized as "under development" across the entire document where this response option was included. The options "no, but AI is included in the national digital health strategy", "no, but the health-care sector is included in the broader (cross-sector/sector-agnostic) national AI strategy, policy or action plan" and "no" were merged and presented as "no". For the question on having a (cross-sector/sector-agnostic) national AI strategy, policy or action plan, the same coding rules applied, using "yes", "currently in development", "no" and "do not know".

Member states answering "yes" or "currently in development" to a (cross-sector/sector agnostic) national AI strategy, policy, action plan or equivalent (n = 41) were then asked about approaches of oversight and implementation of national AI initiatives. Responses were categorized as either "yes" or "no". As these were follow-up questions, the denominator for calculating the regional "yes" response percentage for this item was limited to the 41 countries that had initially responded "yes" or "currently in development".

Engaging stakeholders and building workforce capacity

This theme comprises findings on stakeholder engagement (e.g. of the public, associations, academia, regulators, industry leaders and AI developers) on the use of AI technologies in health systems; private investment and cross-border partnerships in AI research; and preparing an AI-ready workforce in health care (including pre- and in-service training and the creation of new AI and data science roles in the health sector). All questions in this section report the regional percentage of "yes" responses.

The question on whether governments have engaged or consulted relevant stakeholders on AI-driven technologies in health systems covers various modalities of engagement, was answered by "yes" or "no". Countries responding "yes" to any modality (n = 36) were then asked about the specific categories of stakeholders consulted. These follow-up questions were also answered by "yes" or "no". As these were follow-up questions, the denominator for calculating the regional "yes" response percentage for this item was limited to the 36 countries that had initially responded "yes".

Questions on private sector participation in – and investment for – AI research in health care and therapeutic development, as well as on government programmes supporting cross-border partnerships and collaborations, were answered with "yes" or "no". The same response options applied to the creation of new professional roles and career opportunities in data science and AI within the health sector.

Finally, for the question on educational and training opportunities enabling health and related professionals to develop AI skills, "yes" responses combine options of the estimated coverage of professionals in pre-service training and in the workforce: < 50%, 50–75%, or > 75%. Other answer options included "under development", "no" or "do not know".

Regulatory and legal landscape

This theme comprises the legislative measures taken to govern AI for health care, the ethical guidelines and risk considerations, the legal liability standards, and the regulatory agencies responsible for approving and adopting AI systems. It also covers the minimum standard requirements for governance and oversight of AI for health care as well as policy and processes for governing AI. Approaches to develop legislative measures vary, including amending existing laws, aligning with European Union (EU) legislation, or introducing new cross-sector or health-specific laws. Ethical guidance and risk assessment tools cover ethics checklists, practical guidance on data protection and safeguards for fundamental rights. Legal liability standards address both the establishment of new liability regimes for AI (either cross-sectoral or health-specific) and the application of existing liability regimes. Minimum standard requirements reviewed differ, from transparent documentation and record-keeping, through data accountability practices, to post market monitoring of AI products, among others. Policy and processes for governing AI span across procurement, auditing, certification and environmental impacts. All questions report the regional "yes" response.

The question on approaches to develop legislative measures or other provisions to govern AI systems, and the question on the use of practical guidance to assess potential legal and ethical risks to patients and the public, both used the response options "yes" or "no".

The question on adopting a risk-based approach for legislative measures – defined as setting requirements and obligations for development, market placement and use proportionate to the level of risk, as proposed in the EU AI Act[1] – used the response options "yes", "no" or "do not know".

For the question on ethical guidelines, "yes" and "yes, but applicable to all sectors, not specific to the health sector" were merged into "yes". Other responses included "under development", "no" and "do not know".

The existence of different legal liability standards for AI systems was reported as "yes" or "no".

Both questions on regulatory responsibility for AI in health care and on collaborative approaches to strengthen regulatory capacity used the options "yes", "no" or "do not know", with the first combining national- and regional-level responses under "yes".

Questions on minimum standard requirements addressed in any of the laws, rules, policies or guidelines for governance and oversight of AI for health care and the policies and process for governing AI addressing concerns about the impact on the environment (e.g. carbon and water footprints) were answered by "yes", "no" and "do not know", while other policies governing AI (aligned with WHO's global regulatory considerations on artificial intelligence for health)[2] are answered by "yes" or "no".

1 Proposal for a regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence (artificial intelligence act) and amending certain union legislative acts. Brussels: European Union; 2021 (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52021PC0206, accessed 22 August 2025).

2 Regulatory considerations on artificial intelligence for health. Geneva: World Health Organization; 2023 (https://iris.who.int/handle/10665/373421, accessed 22 August 2025).

Data governance

Data governance mechanisms are presented through national health data strategies and governance frameworks (including the establishment of a health data authority), the use of health data hubs (centralized or shared repositories/platforms) and the regulation of the secondary use of health data for public-interest health research. All questions under this theme include a regional "yes" response.

The question on a national health data strategy, policy or equivalent, used the responses "yes", "no" and "do not know", with "no" combining both "no separate health data strategy or policy, but one is included in the national data strategy or policy" and "no". This question also captured the year of adoption and revision. The question on a national health data governance framework used the options "yes", "under development", "no" and "do not know".

Questions on establishing a health data authority and on the creation of a health data hub used similar response structures. For the establishment of an authority, responses were "yes", "no" or "do not know", with "yes" combining national and regional/local levels. For the hub, responses were "yes" (combining national and regional), "under development", "no" and "do not know". For countries answering "yes" to the hub (n = 33), a follow-up question identified the most common data sources, with the denominator narrowed accordingly when calculating the regional "yes" response.

Questions on promoting standards for data warehouses, issuing guidance on the secondary use of health data for research in the public interest and permitting public authorities to extract data from electronic health record (EHR) systems for registries and databases all used the options "yes", "no" and "do not know". The same applied to questions on sharing health data with private companies for public-interest research and on cross-border sharing of health data for research.

Finally, the question on whether data are extracted from EHR systems and merged into registries or databases also followed this format but the categories were refined: "yes, routinely" was presented as "yes", while "yes, occasionally" was merged with "no".

Applications and opportunities of using AI for health

This theme focuses on the common applications and uses of AI in health care, as well as the perceived opportunities driving the development, testing or use of AI in health (by relevance). Common applications of AI in health care include automating administrative tasks, the use of "chatbots" as well as AI-assisted surgeries, diagnostics and remote patient monitoring, among other applications. Perceived opportunities driving the development of AI include reducing health inequalities, improving patient care and health outcomes, and reducing pressure on health-care workers, among other opportunities.

Each AI application or use case reported by a country was coded as "yes", "no" or "do not know", with its maturity classified as:

- "informal" – early adoption in a few clinical establishments in the absence of formal processes and policies;
- "pilot" – testing and evaluating the use in a few clinical establishments for given situations; or
- "established" – ongoing use in clinical establishments for a minimum of two years and planned to continue for at least two more years.

In addition, perceived opportunities driving the development, testing or use of AI in health were rated for relevance, ranging from major relevance to moderate, minor or no relevance.

Barriers to AI uptake in health care

This theme highlights the barriers to widespread adoption of AI in the health sector. These barriers can be related to legal uncertainty, a lack of trust or capacity, insufficient infrastructure, the high cost or the environmental impact. These barriers, among others (highlighted by importance – varying from major importance to moderate, minor or no importance), challenge countries in the WHO European in advancing AI in health care.

Summary of key findings

Across the WHO European Region, countries are moving quickly to understand and apply AI in health. National systems are putting oversight structures in place, building trust and skills among the health workforce and strengthening health data governance, while also beginning to set rules for safe and ethical use. At the same time, governments see AI's potential to improve care, reduce pressure on staff and make health systems more efficient. Yet the path is not without obstacles: uncertainty around regulation, affordability and data quality continue to hold back progress. The summary findings presented here capture this moment of opportunity and challenge, offering a snapshot of where the Region stands.

Strategic and operational context

There are several national oversight mechanisms: oversight of implementation and operation of national AI initiatives in the health sector varies among countries, most commonly being managed through an existing institution or multiple bodies (Table 1).

Table 1.
Oversight of national AI initiatives in the WHO European Region, by country

Country	Through an existing government agency or body/unit	Through multiple agencies or bodies/units with responsibility	Through an expert advisory council or board	Through a new government agency or body/unit	Through a new independent body or entity funded by government
Albania	✓				
Andorra		✓			
Armenia	✓	✓	✓		✓
Austria	✓		✓	✓	
Belgium	✓				
Croatia		✓			
Czechia		✓			
Denmark	✓				
Estonia	✓	✓			
Finland		✓	✓		✓
France	✓	✓			
Hungary		✓			
Ireland		✓			
Israel		✓			

Table 1 contd.

Country	Through an existing government agency or body/unit	Through multiple agencies or bodies/units with responsibility	Through an expert advisory council or board	Through a new government agency or body/unit	Through a new independent body or entity funded by government
Kazakhstan	✓	✓			
Lithuania			✓		
Malta		✓			
Netherlands (Kingdom of the)		✓			
Norway	✓	✓	✓		
Poland	✓				
Portugal		✓			
Romania		✓			
Russian Federation	✓	✓		✓	
Serbia	✓		✓		
Slovakia	✓				✓
Spain		✓	✓	✓	
Sweden	✓	✓			
Switzerland	✓				
Tajikistan				✓	
Türkiye	✓				
Ukraine	✓				
United Kingdom (England)	✓				
Uzbekistan	✓			✓	

✓ — Yes

Note: countries not reflected in the table either did not select any of the available options or did not report having a cross-sector or sector-agnostic national AI strategy, policy, action plan or equivalent.

Engaging stakeholders and building workforce capacity

There is increasing trust-building and capacity-building efforts: trust in AI for health is being fostered through stakeholder engagement,[3] new data science and AI roles, and through expanding health workforce training opportunities across the WHO European Region (Table 2).

Table 2.

AI Trust-building and capacity-building efforts in the WHO European Region, by country

Country	Stakeholders consulted through one or more modalities	The private sector participates and invests in research on AI for health-care and therapeutic development	New professional roles and career opportunities are created for people with in-depth knowledge of data science and AI in the health sector	Educational opportunities on AI skills for health and related professionals as part of pre-service training requirements	Educational opportunities on AI skills for health and related professionals as part of in-service training requirements (i.e. after deployment)
Albania	✓			!	!
Andorra				!	!
Armenia	✓	✓		!	
Austria	✓	✓	✓	!	✓
Azerbaijan	✓				
Belarus	✓	✓			
Belgium	✓	✓		✓	✓
Bulgaria	✓				
Croatia	✓	✓		✓	!
Cyprus	✓		✓	!	!
Czechia		✓		!	!
Denmark	✓	✓	✓	✓	✓
Estonia	✓	✓	✓	✓	✓
Finland	✓	✓	✓	✓	✓
France	✓	✓	✓	✓	
Georgia					
Germany	✓	✓			
Greece	✓	✓	✓		
Hungary	✓	✓	✓	!	✓
Iceland		✓			
Ireland	✓				
Israel	✓	✓	✓	✓	✓
Italy	✓	✓	✓		
Kazakhstan	✓	✓		!	!

3 Stakeholder engagement includes different modalities such as informal engagement (e.g. workshops, meetings and seminars), surveys and interviews, expert and focus groups, public hearings or online public consultations; or targeted consultations of specific stakeholder groups (or consultations were not specifically on AI in health).

Table 2 contd.

Country	Stakeholders consulted through one or more modalities	The private sector participates and invests in research on AI for health-care and therapeutic development	New professional roles and career opportunities are created for people with in-depth knowledge of data science and AI in the health sector	Educational opportunities on AI skills for health and related professionals as part of pre-service training requirements	Educational opportunities on AI skills for health and related professionals as part of in-service training requirements (i.e. after deployment)
Kyrgyzstan	✓			!	
Latvia	✓	✓		!	!
Lithuania	✓	✓			
Luxembourg		✓			
Malta	✓	✓	✓	!	!
Montenegro		✓		!	!
Netherlands (Kingdom of the)	✓	✓	✓		
North Macedonia				!	!
Norway	✓	✓	✓	✓	✓
Poland	✓	✓	✓		
Portugal		✓	✓		
Republic of Moldova			✓	!	!
Romania	✓				
Russian Federation	✓	✓	✓	✓	✓
San Marino	✓				
Serbia	✓	✓			
Slovakia	✓				
Slovenia	✓				
Spain	✓			!	✓
Sweden	✓	✓			
Switzerland		✓			
Tajikistan	✓		✓	!	!
Türkiye	✓	✓	✓		
Ukraine	✓				
United Kingdom (England)	✓	✓	✓		✓
Uzbekistan			✓	✓	✓

✓ — Yes

! — Planned

Regulatory and legal landscape of AI for health

There are diverse approaches of legislative development: countries take varied approaches to developing legislative measures or other provisions for governing the development, deployment and use of AI systems (Table 3). The most common approach is assessing gaps in existing laws, followed by developing focused sector-specific guidance and soft law on AI.

Table 3.

Approaches for legislative measures governing the development, deployment and use of AI systems in the WHO European Region, by country

Country	Assessment of the gaps in existing laws and policies	Development of focused sector-specific guidance and soft law on AI	Amendment of existing laws and policies according to upcoming EU legislation	Development of comprehensive cross-sector mandatory new laws and rules on AI	Amendment of existing laws and policies	Development of comprehensive cross-sector guidance on the application of existing laws and policies	Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	Development of focused sector-specific mandatory new laws and rules on AI
Albania	✓		✓	✓	✓	✓		
Andorra		✓					✓	
Armenia	✓		✓					
Austria	✓		✓					
Azerbaijan		✓		✓		✓		✓
Belarus					✓			
Belgium						✓		
Bulgaria								
Croatia	✓				✓			✓
Cyprus	✓	✓			✓			
Czechia		✓	✓					
Denmark		✓						
Estonia		✓	✓	✓			✓	
Finland	✓		✓		✓			
France	✓	✓	✓					
Georgia	✓	✓		✓				
Germany								
Greece	✓						✓	
Hungary	✓				✓			
Iceland			✓					
Ireland			✓					
Israel	✓	✓					✓	
Italy		✓		✓		✓		

Table 3 contd.

Country	Assessment of the gaps in existing laws and policies	Development of focused sector-specific guidance and soft law on AI	Amendment of existing laws and policies according to upcoming EU legislation	Development of comprehensive cross-sector mandatory new laws and rules on AI	Amendment of existing laws and policies	Development of comprehensive cross-sector guidance on the application of existing laws and policies	Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	Development of focused sector-specific mandatory new laws and rules on AI
Kazakhstan	✓			✓	✓		✓	
Kyrgyzstan					✓			
Latvia				✓				
Lithuania			✓	✓				
Luxembourg	✓							
Malta	✓	✓					✓	
Montenegro	✓							
Netherlands (Kingdom of the)	✓	✓	✓	✓			✓	✓
North Macedonia			✓	✓				✓
Norway	✓	✓	✓			✓	✓	✓
Poland	✓							
Portugal				✓				
Republic of Moldova	✓		✓			✓	✓	
Romania			✓	✓	✓			
Russian Federation	✓	✓		✓	✓	✓	✓	✓
San Marino			✓					
Serbia				✓		✓		
Slovakia	✓							
Slovenia		✓					✓	
Spain				✓				✓
Sweden		✓	✓					✓
Switzerland								
Tajikistan	✓				✓	✓		✓
Türkiye		✓		✓		✓		
Ukraine		✓			✓			✓
United Kingdom (England)	✓					✓		
Uzbekistan				✓				

✓ — Yes

There are few but aligned ethical guidelines: only a few countries reported issuing guidelines to address the ethical implications of developing and using AI in the health sector. However, among those that did, the guidelines consistently covered key ethical principles in a largely uniform manner (Table 4).

Table 4.

Principles addressed in the ethical guidelines issued by WHO European Region, by country

Country	Promotion of human well-being, human safety and the public interest	Transparency, explainability and intelligibility	Fostering of responsibility and accountability	Inclusiveness and equity	Promotion of AI that is responsive and sustainable	Protection of autonomy
Albania	✓	✓	✓	✓	✓	✓
Andorra	✓	✓	✓	✓	✓	✓
Armenia						
Austria						
Azerbaijan						
Belarus						
Belgium						
Bulgaria						
Croatia						
Cyprus						
Czechia						
Denmark						
Estonia						
Finland	✓	✓		✓		✓
France	✓	✓	✓	✓	✓	✓
Georgia						
Germany						
Greece						
Hungary						
Iceland						
Ireland	✓	✓	✓	✓	✓	
Israel	✓	✓	✓	✓	✓	✓
Italy	✓	✓	✓	✓	✓	✓
Kazakhstan						
Kyrgyzstan						
Latvia						
Lithuania						
Luxembourg						

Table 4 contd.

Country	Promotion of human well-being, human safety and the public interest	Transparency, explainability and intelligibility	Fostering of responsibility and accountability	Inclusiveness and equity	Promotion of AI that is responsive and sustainable	Protection of autonomy
Malta	✓	✓	✓	✓	✓	✓
Montenegro						
Netherlands (Kingdom of the)						
North Macedonia						
Norway	✓	✓	✓	✓	✓	✓
Poland	✓	✓	✓	✓	✓	✓
Portugal						
Republic of Moldova						
Romania						
Russian Federation	✓	✓	✓	✓	✓	✓
San Marino						
Serbia	✓	✓	✓	✓	✓	✓
Slovakia						
Slovenia						
Spain						
Sweden						
Switzerland						
Tajikistan						
Türkiye						
Ukraine						
United Kingdom (England)	✓		✓		✓	
Uzbekistan						

✓ — Yes

Policy trends for AI for health are emerging: several policies regulating the development and use of AI for health are steadily being developed, most notably on procuring, developing or using AI systems in health care, the certification of AI systems in health care and addressing concerns about the impact on the environment, while auditing and documenting AI impacts and complaint mechanisms are less prominent (Table 5).

Table 5.

Select AI policies and processes in the WHO European Region, by country

Country	AI policies and processes for:				
	procuring, developing or using AI systems in health care	the certification of AI systems in health care	addressing concerns about the impact on the environment	auditing, identifying and documenting the possible impacts of AI systems in health care	individuals or collectives adversely affected by an AI system to bring complaints before national authorities
Albania					
Andorra			✓		
Armenia					
Austria					
Azerbaijan					
Belarus					
Belgium	✓	✓			
Bulgaria					
Croatia					
Cyprus					
Czechia					
Denmark				✓	
Estonia	✓		✓	✓	
Finland					
France	✓	✓	✓	✓	
Georgia					
Germany			✓		
Greece		✓			
Hungary			✓		✓
Iceland					
Ireland					
Israel					
Italy					
Kazakhstan		✓			
Kyrgyzstan					
Latvia					
Lithuania					

Table 5 contd.

Country	AI policies and processes for: procuring, developing or using AI systems in health care	the certification of AI systems in health care	addressing concerns about the impact on the environment	auditing, identifying and documenting the possible impacts of AI systems in health care	individuals or collectives adversely affected by an AI system to bring complaints before national authorities
Luxembourg					
Malta			✓	✓	
Montenegro					
Netherlands (Kingdom of the)	✓	✓			
North Macedonia					
Norway	✓		✓		
Poland	✓				
Portugal	✓				
Republic of Moldova					
Romania					
Russian Federation	✓	✓		✓	✓
San Marino					
Serbia					
Slovakia					
Slovenia			✓		
Spain	✓	✓		✓	✓
Sweden	✓	✓			
Switzerland					
Tajikistan			✓		
Türkiye	✓		✓	✓	✓
Ukraine					
United Kingdom (England)	✓	✓		✓	✓
Uzbekistan	✓	✓			

✓ — Yes

Health data governance

Most countries have established health data governance: health data governance is generally well established across countries in the WHO European Region, with most countries having or developing health data hubs, a national health data governance framework and a health data authority; and regulating data extraction from EHRs (Table 6).

Table 6.
Health data governance mechanisms in the WHO European Region, by country

Country	Created a national or regional health data hub	Established a national health data governance framework	Set up a health data authority	Has policies permitting public authorities to extract data from EHRs to create regional or national registries
Albania	✓	✓	✓	
Andorra	✓	✓	✓	✓
Armenia	✓	✓	✓	✓
Austria	✓	✓		✓
Azerbaijan	✓	!	✓	
Belarus	!			
Belgium	✓	!	✓	✓
Bulgaria	✓			
Croatia	!	!	✓	✓
Cyprus	!	!	✓	
Czechia	✓	!	✓	✓
Denmark	!	✓	✓	✓
Estonia	✓	!	✓	✓
Finland	✓	✓	✓	✓
France	✓	!	✓	✓
Georgia	✓			
Germany	!	✓	✓	✓
Greece				
Hungary	✓	✓		✓
Iceland	✓	✓	✓	✓
Ireland				
Israel	✓	✓	✓	✓
Italy	✓	!	✓	
Kazakhstan	✓	✓	✓	✓
Kyrgyzstan	✓	✓	✓	✓
Latvia	✓	✓	✓	✓
Lithuania	✓	✓	✓	

Table 6 contd.

Country	Created a national or regional health data hub	Established a national health data governance framework	Set up a health data authority	Has policies permitting public authorities to extract data from EHRs to create regional or national registries
Luxembourg		!		
Malta	✓			✓
Montenegro	!			✓
Netherlands (Kingdom of the)	!	!		✓
North Macedonia	✓		✓	
Norway	✓	✓	✓	
Poland	✓	✓	✓	✓
Portugal	✓	✓		✓
Republic of Moldova	!	✓		
Romania				
Russian Federation	✓	✓	✓	✓
San Marino	✓		✓	✓
Serbia			✓	✓
Slovakia	✓	✓	✓	✓
Slovenia	✓	!	✓	✓
Spain	✓	✓	✓	✓
Sweden	!	✓	✓	
Switzerland		!		
Tajikistan	✓	✓	✓	✓
Türkiye	!	!	✓	✓
Ukraine	✓	✓	✓	
United Kingdom (England)	✓	✓		✓
Uzbekistan	!		✓	

✓ — Yes

! — Currently in development

There are rich data sources for health data hubs: most WHO European Region countries draw on multiple data sources for their health data hubs (centralized/shared repositories or platforms of health data), with hospital inpatient and administrative data being the most commonly used, while genomic data are the least utilized (Table 7).[4]

Table 7.

Data sources for health data hubs in the WHO European Region, by country

Country	Hospital inpatient data	Adminis-trative data	Pres-criptions data	Mortality data	Primary care data	EHR data	Cancer registry data	Emergency health care data	Specific disease data	Diabetes registry data	Paediatric critical care data	Claims data	Synthetic data	Genomic data
Albania	✓	✓	✓		✓	✓	✓			✓				
Andorra	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Armenia	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Austria	✓			✓			✓		✓					
Azerbaijan	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓
Belgium	✓		✓	✓	✓	✓	✓	✓	✓	✓		✓		✓
Bulgaria	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Czechia	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	
Estonia	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓
Finland	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
France	✓	✓	✓	✓			✓		✓	✓		✓		
Georgia	✓	✓		✓	✓		✓		✓					
Hungary	✓	✓	✓	✓	✓	✓		✓			✓			
Iceland	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓		
Israel	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Italy	✓	✓	✓	✓		✓		✓						
Kazakhstan	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Kyrgyzstan	✓	✓	✓	✓	✓	✓			✓		✓			
Latvia	✓	✓	✓	✓		✓	✓	✓	✓	✓				✓
Lithuania	✓		✓		✓	✓		✓						
Malta	✓	✓		✓		✓	✓	✓	✓					
North Macedonia	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Norway	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓			

4 Countries not reflected in the results did not report creating a health data hub at the regional or national level.

Table 7 contd.

Country	Hospital inpatient data	Adminis-trative data	Pres-criptions data	Mortality data	Primary care data	EHR data	Cancer registry data	Emergency health care data	Specific disease data	Diabetes registry data	Paediatric critical care data	Claims data	Synthetic data	Genomic data
Poland			✓			✓							✓	
Portugal	✓	✓	✓	✓	✓	✓		✓			✓			
Russian Federation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
San Marino	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Slovakia	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Slovenia	✓	✓	✓			✓	✓							
Spain	✓	✓			✓								✓	
Tajikistan	✓	✓		✓	✓		✓	✓	✓	✓	✓			
Ukraine	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
United Kingdom (England)	✓	✓	✓	✓	✓	✓		✓						✓

✓ — Yes

Applications and opportunities of using AI for health

There are many opportunities ahead: the top-rated AI opportunities reported were improving care and health outcomes, easing workforce pressure and boosting health system efficiency, while the AI opportunities in reducing inequalities and advancing research were considered as less relevant (Table 8).

Table 8.

Perceived relevance of AI opportunities for the WHO European Region, by country

Country	Improving patient care and health outcomes	Reducing pressure on the health-care workforce	Increasing health system efficiencies	Reducing health inequalities	Advancing health research and accelerating drug discovery
Albania	●●●●	●●●	●●●●	●●	●●
Andorra	●●●	●●●	●●●	●●●	●
Armenia	●●●	●●●	●●●	●●●	●●
Austria	●●●●	●●●●	●●●●	●●	●●
Azerbaijan	●●●●	●●●	●●●	●●	●●●
Belarus	●●●	●●●●	●●●●	●●	●●●
Belgium	●●●●	●●●●	●●●	●●●●	●●●
Bulgaria	●●●	●●●	●●●	●●●	●●
Croatia	●●●●	●●●	●●●●	●●	●●
Cyprus	●●●●	●●●	●●	●●●	●●●
Czechia	●●●●	●●●●	●●●	●●●	●●
Denmark	●●●●	●●●●	●●●●	●●●●	●●●●
Estonia	●●●●	●●●●	●●●●	●●●●	●●●
Finland	●●●●	●●●●	●●●●	●●●	●●●●
France	●●●●	●●●	●●●●	●●●	●●●
Georgia	●●●	●●●	●●●	●●●	●●●
Germany	●●●●	●●●●	●●●●	●●●●	●●●●
Greece	●●●●	●●●●	●●●●	●●●●	●●●●
Hungary	●●●	●●●●	●●	●●●●	●●
Iceland	●●●●	●●●●	●●●●	●●●●	●●●●
Ireland	●●●	●●●●	●●●	●●●	●●●
Israel	●●●●	●●●●	●●●	●●●●	●●●
Italy	●●●●	●●●●	●●●●	●●●●	●●●
Kazakhstan	●●●●	●●●●	●●●	●●●●	●●

Table 8 contd.

Country	Improving patient care and health outcomes	Reducing pressure on the health-care workforce	Increasing health system efficiencies	Reducing health inequalities	Advancing health research and accelerating drug discovery
Kyrgyzstan	●●●●	●●●●	●●●●	●●●	●●
Latvia	●●●●	●●●	●●●	●●	●
Lithuania	●●●●	●●●●	●●●	●●	●●
Luxembourg	●●●●	●●●●	●●●	●●	●●●
Malta	●●●●	●●●●	●●●●	●●●	●●●
Montenegro	●●●●	●●●●	●●●●	●●●●	●●
Netherlands (Kingdom of the)	●●●	●●●●	●●●●	●	●●●
North Macedonia	●●●●	●●●	●●●●	●●●	●●●●
Norway	●●●●	●●●●	●●●●	●●●	●●●
Poland	●●●	●●●	●●●	●●●	●●
Portugal	●●●●	●●●	●●●●	●●●●	●●●
Republic of Moldova	●●●●	●●●●	●●●●	●●●●	●●●●
Romania	●●●	●●	●●	●●●	●
Russian Federation	●●●●	●●●●	●●●●	●●●●	●●●●
San Marino	●●●	●●	●●●	●●●	●●●
Serbia	●●●●	●●●	●●	●●●	●●●
Slovakia	●●●	●●●●	●●●●	●●●	●●●
Slovenia	●●●	●●●	●●●	●●	●
Spain	●●●●	●●●●	●●●●	●●●●	●●●●
Sweden	●●●●	●●●●	●●●●	●●●●	●●●●
Switzerland	●	●	●	●	●
Tajikistan	●●●●	●●●●	●●●●	●●●●	●●●●
Türkiye	●●●●	●●●●	●●●●	●●●●	●●●
Ukraine	●●●	●●	●●●	●●●	●●
United Kingdom (England)	●●●●	●●●●	●●●●	●●●●	●●●●
Uzbekistan	●●●●	●●●●	●●●	●●●	●●●

●●●●	●●●	●●	●
Major relevance	Moderate relevance	Minor relevance	No relevance

Barriers to AI uptake in health care

There are shared perceived barriers: legal uncertainty, financial affordability and data quality were among the top perceived barriers while trust, job displacement and environmental impact were considered as the least important barriers for AI adoption (Table 9).

Table 9.

Perceived importance of barriers to AI implementation for the WHO European Region, by country

Country	Legal uncertainty	Financial affordability	Data quality and standards	Capacity	Strategy	AI product approval processes	Evidence	Cultural impact	Infrastructure	Trust	Job displacements	Environmental impact
Albania	●●●●	●●●●	●●●●	●●●	●●●●	●●●●	●●●	●●●●	●●●	●●●	●●●	●●
Andorra	●●●●	●●●	●●●	●●●	●●●	●●●●	●●●	●●●	●●●	●●●	●●	●●●
Armenia	●●●●	●●●●	●●●●	●●●	●●●	●●	●●●	●●●●	●●●●	●●●●	●●●	●●●●
Austria	●●●	●●●	●●●	●●●	●●	●●●●	●●	●●●	●●●	●●●	●●	●●
Azerbaijan	●●●●	●●●●	●●●●	●●●●	●●●	●●	●	●●●	●●●●	●●●	●●	●●
Belarus	●●●●	●●●●	●●●	●●	●●●●	●●●	●●●●	●●●	●●●	●●●●	●●	●●
Belgium	●●●	●●	●●●	●●●●	●●●	●●●	●●	●●	●●	●●●	●●	●●
Bulgaria	●●●	●●	●	●●●	●●●	●●	●●●	●●●●	●	●●	●	●●●
Croatia	●●●●	●●●	●●	●●	●●●●	●●●	●●●●	●●●●	●●	●●●	●	●●
Cyprus	●●●	●●	●●●●	●●●	●●●	●●●●	●●●	●●●●	●●●	●●●	●●●●	●●●
Czechia	●●●	●●●●	●●●●	●●	●●	●●●	●●●●	●●●	●●●●	●●●	●	●
Denmark	●●●	●●●●	●●	●●●	●●	●●●	●●	●●●	●●●●	●●●	●●	●●
Estonia	●●●	●●●●	●●	●●●	●●	●●●	●●●	●●	●●	●●	●	●
Finland	●●●	●●●	●●	●●●	●●●	●●●	●●●	●●	●●	●●	●●	●●
France	●●	●●●●	●●	●●●●	●●●	●●	●●	●●●	●●	●●●	●●	●●●
Georgia	●●●●	●●●	●●●●	●●●●	●●●	●●●●	●●●●	●●●●	●●●●	●●●●	●●●●	●●●●
Germany	●●●	●●●●	●●●	●●	●	●●●	●●●●	●	●●●	●●	●	●
Greece	●●●●	●	●●●	●●●	●●●●	●●●●	●●●●	●●●●	●	●●●●	●●●●	●
Hungary	●●●	●●●	●●●●	●●	●●●●	●●	●●●	●●	●	●●	●●	●
Iceland	●●●●	●●●●	●●●	●●●	●●●●	●●●●	●●●	●●	●●	●●	●	●
Ireland	●●●●	●●●●	●●●	●●●●	●●●●	●●●	●●●	●●	●●●●	●●	●●	●●●
Israel	●●	●●	●●●	●●●●	●●	●●●	●●●●	●●●	●●	●●●	●●	●●
Italy	●●●●	●●●	●●●●	●●●	●●●●	●●●●	●●	●●●●	●●●	●●●●	●●●●	●●
Kazakhstan	●●●●	●●●	●●●	●●●	●●●●	●●●●	●●●●	●●	●●●	●●●	●	●●

Table 9 contd.

Country	Legal uncertainty	Financial affordability	Data quality and standards	Capacity	Strategy	AI product approval processes	Evidence	Cultural impact	Infrastructure	Trust	Job displacements	Environmental impact
Kyrgyzstan	●●●●	●●●●	●●	●●●	●●●●	●●●	●●●	●●	●●●	●●●	●●	●●
Latvia	●●●	●●●●	●●●●	●●	●●●	●●●	●●●	●	●●	●	●●	●
Lithuania	●●	●●●	●●●	●●●	●●	●●	●●	●●	●●	●●	●●	●
Luxembourg	●●●	●	●●●	●●	●●●	●●●●	●●●	●●●	●●	●●●	●●	●
Malta	●●●●	●●●●	●●●●	●●●●	●●●	●●●	●●●	●●	●●●	●●	●●	●●
Montenegro	●●	●●●●	●●●●	●●●●	●●	●●	●●	●●	●●●●	●●	●●●	●●
Netherlands (Kingdom of the)	●●●	●●●●	●●●●	●●●	●●	●●	●●●●	●●	●●●	●●	●●●	●
North Macedonia	●●●●	●●●●	●●	●●●	●●●●	●●●	●●●	●●	●●●	●●	●	●●
Norway	●●●●	●●●	●●●●	●●●●	●●	●●●●	●●●●	●●●	●●●	●●●●	●●●	●●●
Poland	●●●	●●	●●●	●●●	●●	●●	●●	●●	●●	●●●	●●	●●
Portugal	●●●●	●●●	●●●	●●●●	●●●	●●●●	●●●	●●●	●●●●	●●●	●●●	●●●
Republic of Moldova	●●●	●●●●	●●●	●●●●	●●●	●●●	●●●	●●●	●●	●●●	●●●●	●●●●
Romania	●●●	●●●●	●●●●	●●●	●●●●	●●	●●	●●	●●●●	●	●	●
Russian Federation	●●●	●●	●●	●●	●	●●	●●	●●●	●●	●●	●●	●●
San Marino	●●●●	●●●●	●●●●	●●●●	●●●	●●●	●●●	●●●●	●●●●	●●●●	●●	●●●●
Serbia	●●●	●●●●	●●●	●●●	●●●●	●●●●	●●●	●●	●●	●●	●●	●●
Slovakia	●●●●	●●●	●●	●●●	●●	●●●	●●	●●●	●●	●●●	●●●	●●
Slovenia	●●●	●●●	●●●	●●	●●	●●●	●●	●●●	●●	●●●	●	●
Spain	●●●●	●●●	●●●	●●●●	●●●	●●●	●●●●	●●●●	●●●	●●●●	●●●	●●●
Sweden	●●●●	●●●●	●●●●	●●●●	●●●●	●●●●	●●●●	●●●	●●●●	●●●	●●	●●●
Switzerland	●	●	●	●	●	●	●	●	●	●	●	●
Tajikistan	●●	●●●●	●●	●●●●	●●	●●	●●●	●●●●	●●●	●●●●	●●●●	●●●
Türkiye	●●●●	●●	●●●	●●●	●●●●	●●	●●●●	●●●	●●	●●●●	●●	●●●
Ukraine	●●●●	●●●	●●●	●●●●	●●●	●●●	●●●	●●	●●	●●●	●●●●	●
United Kingdom (England)	●●	●●●	●●●	●●●	●●●	●●	●●	●●	●●●●	●●●	●●	●●●
Uzbekistan	●●●●	●	●●●●	●●	●●	●●	●●	●●●●	●	●●	●	●

●●●● Major importance ●● Moderate importance ●● Minor importance ● No importance

Country profiles

Albania	Finland	Lithuania	Serbia
Andorra	France	Luxembourg	Slovakia
Armenia	Georgia	Malta	Slovenia
Austria	Germany	Montenegro	Spain
Azerbaijan	Greece	Netherlands (Kingdom of the)	Sweden
Belarus	Hungary	North Macedonia	Switzerland
Belgium	Iceland	Norway	Tajikistan
Bulgaria	Ireland	Poland	Türkiye
Croatia	Israel	Portugal	Ukraine
Cyprus	Italy	Republic of Moldova	United Kingdom (England)
Czechia	Kazakhstan	Romania	Uzbekistan
Denmark	Kyrgyzstan	Russian Federation	
Estonia	Latvia	San Marino	

Albania

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	!	66%	–	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✓	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✗	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✓	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✓	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✗	42%
• health-care providers	✗	75%
• academia	✗	67%
• industry leaders	✗	64%
• governmental actors	✓	81%
• regulators	✗	56%
• professional associations	✗	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	–	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	–	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	!	20%
As part of in-service training requirements (i.e. after deployment)	!	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	–	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✓	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✓	22%
Amendment of existing laws and policies	✓	24%
Amendment of existing laws and policies according to upcoming EU legislation	✓	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✓	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✓	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✓	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✓	10%
Specific practical guidance on data protection impact assessment	✓	20%
Specific practical guidance on AI and fundamental rights impact assessment	✓	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✓	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	–	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✓	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✓	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✓	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✓	28%
Post-market monitoring and surveillance of AI products	✓	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	–	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✗	66%	–	–
National health data governance framework	✓	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✓	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✗	30%
Genomic data	✗	15%
Primary care data	✓	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✓	76%
Diabetes registry data	✓	58%
Specific disease data	✗	73%
Paediatric critical care data	✗	52%
Prescriptions data	✓	85%
Mortality data	✗	85%
Emergency health-care data	✗	76%
EHR data	✓	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	–	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	–	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	–	50%
With rules for health data sharing with private companies for public-interest research	–	40%
With rules for cross-border sharing of health data for research	–	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	⊗	40%	–
Conversational platforms ("chatbots") for patient assistance	⊗	50%	–
AI-assisted surgery/medical robotics to optimize surgical skills	⊗	38%	–
AI-assisted diagnostics	–	64%	–
AI-assisted prognosis prediction (risk stratification)	–	36%	–
AI-assisted symptom checkers and support in treatment decisions	–	38%	–
AI-assisted remote patient monitoring	⊗	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●●
Legal uncertainty	●●●●
AI product approval processes	●●●●
Infrastructure	●●●
Data quality and standards	●●●●
Financial affordability	●●●●
Evidence	●●●
Capacity	●●●
Job displacements	●●●
Trust	●●●
Cultural impact	●●●●
Environmental impact	●●

Andorra

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✓	8%	2024	,
Cross-sector AI strategy	✓	66%	2024	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✗	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✓	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	!	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	–	22%
• patient associations	–	42%
• health-care providers	–	75%
• academia	–	67%
• industry leaders	–	64%
• governmental actors	–	81%
• regulators	–	56%
• professional associations	–	56%
• AI developers	–	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✗	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✗	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	!	20%
As part of in-service training requirements (i.e. after deployment)	!	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✗	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✓	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✓	22%
Adopted a risk-based approach	✓	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✓	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✓	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✓	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✓	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✓	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✓	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✓	28%
Post-market monitoring and surveillance of AI products	✓	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✓	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2023	–
National health data governance framework	✓	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✓	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✓	30%
Genomic data	✗	15%
Primary care data	✓	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✓	76%
Diabetes registry data	✓	58%
Specific disease data	✓	73%
Paediatric critical care data	✓	52%
Prescriptions data	✓	85%
Mortality data	✓	85%
Emergency health-care data	✓	76%
EHR data	✓	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✗	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✓	50%
With rules for health data sharing with private companies for public-interest research	✗	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	⊗	40%	–
Conversational platforms ("chatbots") for patient assistance	⊗	50%	–
AI-assisted surgery/medical robotics to optimize surgical skills	⊗	38%	–
AI-assisted diagnostics	⊗	64%	–
AI-assisted prognosis prediction (risk stratification)	⊗	36%	–
AI-assisted symptom checkers and support in treatment decisions	⊗	38%	–
AI-assisted remote patient monitoring	⊗	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●●
Improving patient care and health outcomes	●●●
Reducing pressure on the health-care workforce	●●●
Increasing health system efficiencies	●●●
Advancing health research and accelerating drug discovery	●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●
Legal uncertainty	●●●●
AI product approval processes	●●●●
Infrastructure	●●●
Data quality and standards	●●●
Financial affordability	●●●
Evidence	●●●
Capacity	●●●
Job displacements	●●
Trust	●●●
Cultural impact	●●●
Environmental impact	●●●

Armenia

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	!	8%	–	~
Cross-sector AI strategy	!	66%	–	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✓	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✓	17%
A new independent body or entity funded by government	✓	7%
Multiple agencies or bodies/units with responsibility	✓	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✗	8%

Engaging stakeholders and building workforce capacity

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✓	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✓	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	✓	22%
• patient associations	✗	42%
• health-care providers	✗	75%
• academia	✗	67%
• industry leaders	✓	64%
• governmental actors	✗	81%
• regulators	✗	56%
• professional associations	✗	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	–	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	!	20%
As part of in-service training requirements (i.e. after deployment)	–	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	–	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✓	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✓	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	–	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	!	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✗	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✓	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✗	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✗	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✗	28%
Post-market monitoring and surveillance of AI products	✗	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	–	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2020	–
National health data governance framework	✓	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✓	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✗	30%
Genomic data	✗	15%
Primary care data	✓	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✓	76%
Diabetes registry data	✓	58%
Specific disease data	✓	73%
Paediatric critical care data	✓	52%
Prescriptions data	✓	85%
Mortality data	✓	85%
Emergency health-care data	✓	76%
EHR data	✓	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✗	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✓	50%
With rules for health data sharing with private companies for public-interest research	✓	40%
With rules for cross-border sharing of health data for research	✓	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	–	40%	–
Conversational platforms ("chatbots") for patient assistance	–	50%	–
AI-assisted surgery/medical robotics to optimize surgical skills	✗	38%	–
AI-assisted diagnostics	✓	64%	Pilot
AI-assisted prognosis prediction (risk stratification)	–	36%	–
AI-assisted symptom checkers and support in treatment decisions	✗	38%	–
AI-assisted remote patient monitoring	✗	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●●
Improving patient care and health outcomes	●●●
Reducing pressure on the health-care workforce	●●●
Increasing health system efficiencies	●●●
Advancing health research and accelerating drug discovery	●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●
Legal uncertainty	●●●●
AI product approval processes	●●
Infrastructure	●●●●
Data quality and standards	●●●●
Financial affordability	●●●●
Evidence	●●●
Capacity	●●●
Job displacements	●●●
Trust	●●●●
Cultural impact	●●●●
Environmental impact	●●●●

Austria

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✓	66%	2021	2024

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✓	46%
A new government agency or body/unit	✓	12%
An expert advisory council or board	✓	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✗	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✗	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✓	26%
Through expert and focus groups	✓	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✓	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✓	42%
• health-care providers	✓	75%
• academia	✓	67%
• industry leaders	✓	64%
• governmental actors	✓	81%
• regulators	✗	56%
• professional associations	✓	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✗	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	!	20%
As part of in-service training requirements (i.e. after deployment)	✓	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✓	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✓	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✓	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✓	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✓	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✗	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✗	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✗	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✗	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✗	28%
Post-market monitoring and surveillance of AI products	✗	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✗	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✗	66%	–	–
National health data governance framework	✓	50%	~	~
Health data authority	✗	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✓	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✗	30%
Genomic data	✗	15%
Primary care data	✗	79%
Hospital inpatient data	✓	97%
Administrative data	✗	88%
Cancer registry data	✓	76%
Diabetes registry data	✗	58%
Specific disease data	✓	73%
Paediatric critical care data	✗	52%
Prescriptions data	✗	85%
Mortality data	✓	85%
Emergency health-care data	✗	76%
EHR data	✗	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✗	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✗	50%
With rules for health data sharing with private companies for public-interest research	✗	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✓	40%	Established
Conversational platforms ("chatbots") for patient assistance	✓	50%	Pilot
AI-assisted surgery/medical robotics to optimize surgical skills	✓	38%	Established
AI-assisted diagnostics	✓	64%	Established
AI-assisted prognosis prediction (risk stratification)	✓	36%	Pilot
AI-assisted symptom checkers and support in treatment decisions	✓	38%	Pilot
AI-assisted remote patient monitoring	✓	32%	Pilot

Opportunities driving development

	Country response
Reducing health inequalities	●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●
Legal uncertainty	●●●
AI product approval processes	●●●●
Infrastructure	●●●
Data quality and standards	●●●
Financial affordability	●●●
Evidence	●●
Capacity	●●●
Job displacements	●●
Trust	●●●
Cultural impact	●●●
Environmental impact	●●

Azerbaijan

Legend

Country response

✓	Yes	✗	No	!	Under development	–	Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

●●●●	Major relevance
●●●	Moderate relevance
●●	Minor relevance
●	No relevance

Importance

●●●●	Major importance
●●●	Moderate importance
●●	Minor importance
●	No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	!	8%	–	~
Cross-sector AI strategy	✗	66%	–	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	–	46%
A new government agency or body/unit	–	12%
An expert advisory council or board	–	17%
A new independent body or entity funded by government	–	7%
Multiple agencies or bodies/units with responsibility	–	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✗	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✓	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✗	42%
• health-care providers	✗	75%
• academia	✗	67%
• industry leaders	✓	64%
• governmental actors	✗	81%
• regulators	✗	56%
• professional associations	✗	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✗	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✗	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	✗	20%
As part of in-service training requirements (i.e. after deployment)	✗	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	–	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✓	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✓	34%
Development of focused sector-specific mandatory new laws and rules on AI	✓	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✓	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✗	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✗	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✗	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	–	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✗	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✗	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✗	28%
Post-market monitoring and surveillance of AI products	✗	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	–	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2025	–
National health data governance framework	!	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	–	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✗	30%
Genomic data	✓	15%
Primary care data	✓	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✓	76%
Diabetes registry data	✓	58%
Specific disease data	✓	73%
Paediatric critical care data	✓	52%
Prescriptions data	✓	85%
Mortality data	✓	85%
Emergency health-care data	✓	76%
EHR data	✓	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✗	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✗	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✗	50%
With rules for health data sharing with private companies for public-interest research	✗	40%
With rules for cross-border sharing of health data for research	–	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	⊗	40%	–
Conversational platforms ("chatbots") for patient assistance	⊗	50%	–
AI-assisted surgery/medical robotics to optimize surgical skills	⊗	38%	–
AI-assisted diagnostics	⊗	64%	–
AI-assisted prognosis prediction (risk stratification)	⊗	36%	–
AI-assisted symptom checkers and support in treatment decisions	⊗	38%	–
AI-assisted remote patient monitoring	⊗	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●
Increasing health system efficiencies	●●●
Advancing health research and accelerating drug discovery	●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●
Legal uncertainty	●●●●
AI product approval processes	●●
Infrastructure	●●●●
Data quality and standards	●●●●
Financial affordability	●●●●
Evidence	●
Capacity	●●●●
Job displacements	●●
Trust	●●●
Cultural impact	●●●
Environmental impact	●●

Belarus

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✗	66%	–	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	–	46%
A new government agency or body/unit	–	12%
An expert advisory council or board	–	17%
A new independent body or entity funded by government	–	7%
Multiple agencies or bodies/units with responsibility	–	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✗	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✓	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	✓	22%
• patient associations	✗	42%
• health-care providers	✗	75%
• academia	✗	67%
• industry leaders	✗	64%
• governmental actors	✗	81%
• regulators	✗	56%
• professional associations	✗	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✗	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	✗	20%
As part of in-service training requirements (i.e. after deployment)	✗	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✗	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✓	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✗	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✗	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✗	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✗	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✗	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✗	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✗	28%
Post-market monitoring and surveillance of AI products	✗	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✗	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✗	66%	–	–
National health data governance framework	✗	50%	~	~
Health data authority	✗	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	!	66%
Standard requirements for the creation of health data warehouses	✗	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	–	30%
Genomic data	–	15%
Primary care data	–	79%
Hospital inpatient data	–	97%
Administrative data	–	88%
Cancer registry data	–	76%
Diabetes registry data	–	58%
Specific disease data	–	73%
Paediatric critical care data	–	52%
Prescriptions data	–	85%
Mortality data	–	85%
Emergency health-care data	–	76%
EHR data	–	79%
Synthetic data	–	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✗	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✗	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✗	50%
With rules for health data sharing with private companies for public-interest research	✗	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	⊗	40%	–
Conversational platforms ("chatbots") for patient assistance	⊗	50%	–
AI-assisted surgery/medical robotics to optimize surgical skills	⊗	38%	–
AI-assisted diagnostics	⊗	64%	–
AI-assisted prognosis prediction (risk stratification)	⊗	36%	–
AI-assisted symptom checkers and support in treatment decisions	⊗	38%	–
AI-assisted remote patient monitoring	⊗	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●
Improving patient care and health outcomes	●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●●
Legal uncertainty	●●●●
AI product approval processes	●●●
Infrastructure	●●●
Data quality and standards	●●●
Financial affordability	●●●●
Evidence	●●●●
Capacity	●●
Job displacements	●●
Trust	●●●●
Cultural impact	●●●
Environmental impact	●●

Belgium

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✓	66%	2022	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✓	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✗	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✓	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✓	44%
Through surveys and interviews	✓	26%
Through expert and focus groups	✓	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✓	32%
Not specifically on AI-driven technologies in health	✓	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✓	42%
• health-care providers	✓	75%
• academia	✗	67%
• industry leaders	✓	64%
• governmental actors	✓	81%
• regulators	✗	56%
• professional associations	✗	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✓	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	✓	20%
As part of in-service training requirements (i.e. after deployment)	✓	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	–	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✓	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✓	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	!	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✓	10%
Specific practical guidance on data protection impact assessment	✓	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✓	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✓	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✓	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✓	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✓	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✓	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✓	28%
Post-market monitoring and surveillance of AI products	✓	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✓	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✓	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	–	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2024	–
National health data governance framework	!	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✓	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✓	30%
Genomic data	✓	15%
Primary care data	✓	79%
Hospital inpatient data	✓	97%
Administrative data	✗	88%
Cancer registry data	✓	76%
Diabetes registry data	✓	58%
Specific disease data	✓	73%
Paediatric critical care data	✗	52%
Prescriptions data	✓	85%
Mortality data	✓	85%
Emergency health-care data	✓	76%
EHR data	✓	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	–	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✓	50%
With rules for health data sharing with private companies for public-interest research	✓	40%
With rules for cross-border sharing of health data for research	–	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	–	40%	–
Conversational platforms ("chatbots") for patient assistance	✓	50%	Pilot
AI-assisted surgery/medical robotics to optimize surgical skills	✓	38%	Pilot
AI-assisted diagnostics	✓	64%	Pilot
AI-assisted prognosis prediction (risk stratification)	–	36%	–
AI-assisted symptom checkers and support in treatment decisions	✓	38%	Pilot
AI-assisted remote patient monitoring	✓	32%	Established

Opportunities driving development

	Country response
Reducing health inequalities	●●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●
Advancing health research and accelerating drug discovery	●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●
Legal uncertainty	●●●
AI product approval processes	●●●
Infrastructure	●●
Data quality and standards	●●●
Financial affordability	●●
Evidence	●●
Capacity	●●●●
Job displacements	●●
Trust	●●●
Cultural impact	●●
Environmental impact	●●

Bulgaria

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✓	66%	2020	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✗	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✗	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	!	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✓	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✓	42%
• health-care providers	✓	75%
• academia	✗	67%
• industry leaders	✓	64%
• governmental actors	✓	81%
• regulators	✓	56%
• professional associations	✓	56%
• AI developers	✗	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	–	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✗	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	–	20%
As part of in-service training requirements (i.e. after deployment)	–	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	–	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	–	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	!	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✗	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✗	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	–	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	–	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	–	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	–	28%
Post-market monitoring and surveillance of AI products	–	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✗	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2024	–
National health data governance framework	✗	50%	~	~
Health data authority	✗	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✓	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✗	30%
Genomic data	✗	15%
Primary care data	✓	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✓	76%
Diabetes registry data	✓	58%
Specific disease data	✓	73%
Paediatric critical care data	✓	52%
Prescriptions data	✓	85%
Mortality data	✓	85%
Emergency health-care data	✓	76%
EHR data	✓	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✗	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✗	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✗	50%
With rules for health data sharing with private companies for public-interest research	✗	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✗	40%	–
Conversational platforms ("chatbots") for patient assistance	✗	50%	–
AI-assisted surgery/medical robotics to optimize surgical skills	–	38%	–
AI-assisted diagnostics	✗	64%	–
AI-assisted prognosis prediction (risk stratification)	✗	36%	–
AI-assisted symptom checkers and support in treatment decisions	✗	38%	–
AI-assisted remote patient monitoring	✗	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●●
Improving patient care and health outcomes	●●●
Reducing pressure on the health-care workforce	●●●
Increasing health system efficiencies	●●●
Advancing health research and accelerating drug discovery	●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●
Legal uncertainty	●●●
AI product approval processes	●●
Infrastructure	●
Data quality and standards	●
Financial affordability	●●
Evidence	●●●
Capacity	●●●
Job displacements	●
Trust	●●
Cultural impact	●●●●
Environmental impact	●●●

Croatia

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	!	66%	–	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✗	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✓	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	!	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✓	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✓	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✗	42%
• health-care providers	✓	75%
• academia	✓	67%
• industry leaders	✓	64%
• governmental actors	✓	81%
• regulators	✓	56%
• professional associations	✓	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✓	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	✓	20%
As part of in-service training requirements (i.e. after deployment)	!	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	–	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✓	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✓	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✓	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	–	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	!	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✓	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✓	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✗	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✓	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✗	28%
Post-market monitoring and surveillance of AI products	✗	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	–	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2024	–
National health data governance framework	!	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	!	66%
Standard requirements for the creation of health data warehouses	✗	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	–	30%
Genomic data	–	15%
Primary care data	–	79%
Hospital inpatient data	–	97%
Administrative data	–	88%
Cancer registry data	–	76%
Diabetes registry data	–	58%
Specific disease data	–	73%
Paediatric critical care data	–	52%
Prescriptions data	–	85%
Mortality data	–	85%
Emergency health-care data	–	76%
EHR data	–	79%
Synthetic data	–	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✓	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✓	50%
With rules for health data sharing with private companies for public-interest research	✓	40%
With rules for cross-border sharing of health data for research	✓	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✓	40%	Informal
Conversational platforms ("chatbots") for patient assistance	✓	50%	Pilot
AI-assisted surgery/medical robotics to optimize surgical skills	✓	38%	Established
AI-assisted diagnostics	✓	64%	Established
AI-assisted prognosis prediction (risk stratification)	✓	36%	Informal
AI-assisted symptom checkers and support in treatment decisions	✗	38%	–
AI-assisted remote patient monitoring	✗	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●●
Legal uncertainty	●●●●
AI product approval processes	●●●
Infrastructure	●●
Data quality and standards	●●
Financial affordability	●●●
Evidence	●●●●
Capacity	●●
Job displacements	●
Trust	●●●
Cultural impact	●●●●
Environmental impact	●●

Cyprus

Legend

Country response

✓	Yes	✗	No	!	Under development	–	Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

●●●●	Major relevance
●●●	Moderate relevance
●●	Minor relevance
●	No relevance

Importance

●●●●	Major importance
●●●	Moderate importance
●●	Minor importance
●	No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	!	8%	–	~
Cross-sector AI strategy	✗	66%	–	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	–	46%
A new government agency or body/unit	–	12%
An expert advisory council or board	–	17%
A new independent body or entity funded by government	–	7%
Multiple agencies or bodies/units with responsibility	–	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	!	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✓	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✓	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✓	42%
• health-care providers	✓	75%
• academia	✓	67%
• industry leaders	✓	64%
• governmental actors	✓	81%
• regulators	✗	56%
• professional associations	✗	56%
• AI developers	✗	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✗	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✗	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	!	20%
As part of in-service training requirements (i.e. after deployment)	!	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✓	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✓	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✓	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✓	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✗	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✗	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✓	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✗	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✓	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✗	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	–	28%
Post-market monitoring and surveillance of AI products	–	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	–	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2019	–
National health data governance framework	!	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	!	66%
Standard requirements for the creation of health data warehouses	✓	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	–	30%
Genomic data	–	15%
Primary care data	–	79%
Hospital inpatient data	–	97%
Administrative data	–	88%
Cancer registry data	–	76%
Diabetes registry data	–	58%
Specific disease data	–	73%
Paediatric critical care data	–	52%
Prescriptions data	–	85%
Mortality data	–	85%
Emergency health-care data	–	76%
EHR data	–	79%
Synthetic data	–	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✗	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✗	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✗	50%
With rules for health data sharing with private companies for public-interest research	✗	40%
With rules for cross-border sharing of health data for research	✓	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	–	40%	–
Conversational platforms ("chatbots") for patient assistance	⊗	50%	–
AI-assisted surgery/medical robotics to optimize surgical skills	⊗	38%	–
AI-assisted diagnostics	⊗	64%	–
AI-assisted prognosis prediction (risk stratification)	⊗	36%	–
AI-assisted symptom checkers and support in treatment decisions	⊗	38%	–
AI-assisted remote patient monitoring	⊗	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●
Increasing health system efficiencies	●●
Advancing health research and accelerating drug discovery	●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●
Legal uncertainty	●●●
AI product approval processes	●●●●
Infrastructure	●●●
Data quality and standards	●●●●
Financial affordability	●●
Evidence	●●●
Capacity	●●●
Job displacements	●●●●
Trust	●●●
Cultural impact	●●●●
Environmental impact	●●●

Czechia

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	!	8%	–	~
Cross-sector AI strategy	✓	66%	2019	2024

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✗	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✓	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	!	8%

Way through which stakeholder consultations occur

–	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health of these the stakeholders involved were:	✗	20%
• the broader public	–	22%
• patient associations	–	42%
• health-care providers	–	75%
• academia	–	67%
• industry leaders	–	64%
• governmental actors	–	81%
• regulators	–	56%
• professional associations	–	56%
• AI developers	–	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✗	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	!	20%
As part of in-service training requirements (i.e. after deployment)	!	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✗	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✓	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✓	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✓	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	!	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✓	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✗	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✗	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✗	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✗	28%
Post-market monitoring and surveillance of AI products	✗	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✗	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2024	–
National health data governance framework	!	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✗	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✓	30%
Genomic data	✗	15%
Primary care data	✓	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✓	76%
Diabetes registry data	✓	58%
Specific disease data	✓	73%
Paediatric critical care data	✓	52%
Prescriptions data	✓	85%
Mortality data	✓	85%
Emergency health-care data	✓	76%
EHR data	✗	79%
Synthetic data	✓	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✗	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✓	50%
With rules for health data sharing with private companies for public-interest research	✓	40%
With rules for cross-border sharing of health data for research	✓	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✔	40%	Informal
Conversational platforms ("chatbots") for patient assistance	✔	50%	Pilot
AI-assisted surgery/medical robotics to optimize surgical skills	✔	38%	Pilot
AI-assisted diagnostics	✔	64%	Established
AI-assisted prognosis prediction (risk stratification)	✔	36%	Pilot
AI-assisted symptom checkers and support in treatment decisions	✔	38%	Pilot
AI-assisted remote patient monitoring	✔	32%	Pilot

Opportunities driving development

	Country response
Reducing health inequalities	●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●
Advancing health research and accelerating drug discovery	●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●
Legal uncertainty	●●●
AI product approval processes	●●●
Infrastructure	●●●●
Data quality and standards	●●●●
Financial affordability	●●●●
Evidence	●●●●
Capacity	●●
Job displacements	●
Trust	●●●
Cultural impact	●●●
Environmental impact	●

Denmark

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✓	66%	2019	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✓	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✗	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✗	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✓	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	✓	22%
• patient associations	✓	42%
• health-care providers	✓	75%
• academia	✓	67%
• industry leaders	✓	64%
• governmental actors	✓	81%
• regulators	✓	56%
• professional associations	✓	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	–	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	✓	20%
As part of in-service training requirements (i.e. after deployment)	✓	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✓	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✓	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✗	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✗	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✗	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✓	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✗	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✓	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✗	28%
Post-market monitoring and surveillance of AI products	✗	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✓	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✗	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2023	–
National health data governance framework	✓	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	!	66%
Standard requirements for the creation of health data warehouses	✓	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	–	30%
Genomic data	–	15%
Primary care data	–	79%
Hospital inpatient data	–	97%
Administrative data	–	88%
Cancer registry data	–	76%
Diabetes registry data	–	58%
Specific disease data	–	73%
Paediatric critical care data	–	52%
Prescriptions data	–	85%
Mortality data	–	85%
Emergency health-care data	–	76%
EHR data	–	79%
Synthetic data	–	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✓	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✓	50%
With rules for health data sharing with private companies for public-interest research	✓	40%
With rules for cross-border sharing of health data for research	✓	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✓	40%	Established
Conversational platforms ("chatbots") for patient assistance	✓	50%	Established
AI-assisted surgery/medical robotics to optimize surgical skills	–	38%	–
AI-assisted diagnostics	✓	64%	Established
AI-assisted prognosis prediction (risk stratification)	✓	36%	Established
AI-assisted symptom checkers and support in treatment decisions	✓	38%	Established
AI-assisted remote patient monitoring	✓	32%	Pilot

Opportunities driving development

	Country response
Reducing health inequalities	●●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●
Legal uncertainty	●●●
AI product approval processes	●●●
Infrastructure	●●●●
Data quality and standards	●●
Financial affordability	●●●●
Evidence	●●
Capacity	●●●
Job displacements	●●
Trust	●●●
Cultural impact	●●●
Environmental impact	●●

Estonia

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	!	66%	–	~

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✓	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✓	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	!	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✓	44%
Through surveys and interviews	✓	26%
Through expert and focus groups	✓	46%
Through public hearings or online public consultations	✓	16%
Through targeted consultations of specific stakeholder groups	✓	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	✓	22%
• patient associations	✓	42%
• health-care providers	✓	75%
• academia	✓	67%
• industry leaders	✓	64%
• governmental actors	✓	81%
• regulators	✓	56%
• professional associations	✓	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✓	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	✓	20%
As part of in-service training requirements (i.e. after deployment)	✓	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✓	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✓	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✓	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✓	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✓	22%
Adopted a risk-based approach	✓	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	!	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✓	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✓	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✗	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✓	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✓	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✗	28%
Post-market monitoring and surveillance of AI products	✗	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✓	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✓	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✓	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2025	–
National health data governance framework	!	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✗	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✓	30%
Genomic data	✓	15%
Primary care data	✓	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✓	76%
Diabetes registry data	✗	58%
Specific disease data	✓	73%
Paediatric critical care data	✗	52%
Prescriptions data	✓	85%
Mortality data	✓	85%
Emergency health-care data	✓	76%
EHR data	✓	79%
Synthetic data	✓	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✓	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✓	50%
With rules for health data sharing with private companies for public-interest research	✓	40%
With rules for cross-border sharing of health data for research	✓	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✓	40%	Established
Conversational platforms ("chatbots") for patient assistance	✓	50%	Established
AI-assisted surgery/medical robotics to optimize surgical skills	✗	38%	–
AI-assisted diagnostics	✓	64%	Established
AI-assisted prognosis prediction (risk stratification)	✓	36%	Established
AI-assisted symptom checkers and support in treatment decisions	✓	38%	Established
AI-assisted remote patient monitoring	✗	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●
Legal uncertainty	●●●
AI product approval processes	●●●
Infrastructure	●●
Data quality and standards	●●
Financial affordability	●●●●
Evidence	●●●
Capacity	●●●
Job displacements	●
Trust	●●
Cultural impact	●●
Environmental impact	●

Finland

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✓	8%	2024	~
Cross-sector AI strategy	✓	66%	2017	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✗	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✓	17%
A new independent body or entity funded by government	✓	7%
Multiple agencies or bodies/units with responsibility	✓	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✗	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✓	44%
Through surveys and interviews	✓	26%
Through expert and focus groups	✓	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✓	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✓	42%
• health-care providers	✓	75%
• academia	✓	67%
• industry leaders	✓	64%
• governmental actors	✓	81%
• regulators	✓	56%
• professional associations	✓	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✓	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	✓	20%
As part of in-service training requirements (i.e. after deployment)	✓	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✓	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✓	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✓	24%
Amendment of existing laws and policies according to upcoming EU legislation	✓	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✗	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✓	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✓	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✓	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✗	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✗	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✗	28%
Post-market monitoring and surveillance of AI products	✗	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✗	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2023	–
National health data governance framework	✓	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✓	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✗	30%
Genomic data	✗	15%
Primary care data	✓	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✓	76%
Diabetes registry data	✓	58%
Specific disease data	✓	73%
Paediatric critical care data	✓	52%
Prescriptions data	✓	85%
Mortality data	✓	85%
Emergency health-care data	✓	76%
EHR data	✓	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✓	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✗	50%
With rules for health data sharing with private companies for public-interest research	✓	40%
With rules for cross-border sharing of health data for research	✓	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✔	40%	Established
Conversational platforms ("chatbots") for patient assistance	✔	50%	Established
AI-assisted surgery/medical robotics to optimize surgical skills	✔	38%	Established
AI-assisted diagnostics	✔	64%	Pilot
AI-assisted prognosis prediction (risk stratification)	✔	36%	Pilot
AI-assisted symptom checkers and support in treatment decisions	✔	38%	Informal
AI-assisted remote patient monitoring	✔	32%	Established

Opportunities driving development

	Country response
Reducing health inequalities	●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●
Legal uncertainty	●●●
AI product approval processes	●●●
Infrastructure	●●
Data quality and standards	●●
Financial affordability	●●●
Evidence	●●●
Capacity	●●●
Job displacements	●●
Trust	●●
Cultural impact	●●
Environmental impact	●●

France

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✓	66%	2018	2024

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✓	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✓	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✗	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✓	44%
Through surveys and interviews	✓	26%
Through expert and focus groups	✓	46%
Through public hearings or online public consultations	✓	16%
Through targeted consultations of specific stakeholder groups	✓	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	✓	22%
• patient associations	✓	42%
• health-care providers	✓	75%
• academia	✓	67%
• industry leaders	✓	64%
• governmental actors	✓	81%
• regulators	✓	56%
• professional associations	✓	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✓	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	✓	20%
As part of in-service training requirements (i.e. after deployment)	✗	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✓	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✓	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✓	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✓	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✓	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✓	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✓	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✓	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✓	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✓	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✓	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✓	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✓	28%
Post-market monitoring and surveillance of AI products	✓	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✓	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✓	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✓	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✓	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2025	–
National health data governance framework	!	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✓	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✓	30%
Genomic data	✗	15%
Primary care data	✗	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✓	76%
Diabetes registry data	✓	58%
Specific disease data	✓	73%
Paediatric critical care data	✗	52%
Prescriptions data	✓	85%
Mortality data	✓	85%
Emergency health-care data	✗	76%
EHR data	✗	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✓	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✗	50%
With rules for health data sharing with private companies for public-interest research	✓	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✓	40%	Pilot
Conversational platforms ("chatbots") for patient assistance	✓	50%	Informal
AI-assisted surgery/medical robotics to optimize surgical skills	✓	38%	Established
AI-assisted diagnostics	✓	64%	Established
AI-assisted prognosis prediction (risk stratification)	✓	36%	Pilot
AI-assisted symptom checkers and support in treatment decisions	✓	38%	Established
AI-assisted remote patient monitoring	✓	32%	Pilot

Opportunities driving development

	Country response
Reducing health inequalities	●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●
Legal uncertainty	●●
AI product approval processes	●●
Infrastructure	●●
Data quality and standards	●●
Financial affordability	●●●●
Evidence	●●
Capacity	●●●●
Job displacements	●●
Trust	●●●
Cultural impact	●●●
Environmental impact	●●●

Georgia

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	!	66%	–	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✗	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✗	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	–	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	–	22%
• patient associations	–	42%
• health-care providers	–	75%
• academia	–	67%
• industry leaders	–	64%
• governmental actors	–	81%
• regulators	–	56%
• professional associations	–	56%
• AI developers	–	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	–	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	–	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	–	20%
As part of in-service training requirements (i.e. after deployment)	–	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	–	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✓	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✓	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✓	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	–	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	–	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	–	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	–	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	–	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	–	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	–	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	–	28%
Post-market monitoring and surveillance of AI products	–	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	–	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	–	66%	–	–
National health data governance framework	–	50%	~	~
Health data authority	–	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	–	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✗	30%
Genomic data	✗	15%
Primary care data	✓	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✓	76%
Diabetes registry data	✗	58%
Specific disease data	✓	73%
Paediatric critical care data	✗	52%
Prescriptions data	✗	85%
Mortality data	✓	85%
Emergency health-care data	✗	76%
EHR data	✗	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	–	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	–	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	–	50%
With rules for health data sharing with private companies for public-interest research	–	40%
With rules for cross-border sharing of health data for research	–	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✓	40%	Informal
Conversational platforms ("chatbots") for patient assistance	✓	50%	Informal
AI-assisted surgery/medical robotics to optimize surgical skills	–	38%	–
AI-assisted diagnostics	–	64%	–
AI-assisted prognosis prediction (risk stratification)	–	36%	–
AI-assisted symptom checkers and support in treatment decisions	–	38%	–
AI-assisted remote patient monitoring	–	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●●
Improving patient care and health outcomes	●●●
Reducing pressure on the health-care workforce	●●●
Increasing health system efficiencies	●●●
Advancing health research and accelerating drug discovery	●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●
Legal uncertainty	●●●●
AI product approval processes	●●●●
Infrastructure	●●●●
Data quality and standards	●●●●
Financial affordability	●●●
Evidence	●●●●
Capacity	●●●●
Job displacements	●●●●
Trust	●●●●
Cultural impact	●●●●
Environmental impact	●●●●

Germany

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✓	66%	2018	2020

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✗	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✗	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✗	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✓	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✓	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✓	42%
• health-care providers	✗	75%
• academia	✓	67%
• industry leaders	✓	64%
• governmental actors	✓	81%
• regulators	✗	56%
• professional associations	✓	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✗	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	–	20%
As part of in-service training requirements (i.e. after deployment)	–	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	–	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✓	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✗	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✓	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	–	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✓	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✓	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✓	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✓	28%
Post-market monitoring and surveillance of AI products	✓	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✓	20%

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✗	66%	–	–
National health data governance framework	✓	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	!	66%
Standard requirements for the creation of health data warehouses	✗	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	–	30%
Genomic data	–	15%
Primary care data	–	79%
Hospital inpatient data	–	97%
Administrative data	–	88%
Cancer registry data	–	76%
Diabetes registry data	–	58%
Specific disease data	–	73%
Paediatric critical care data	–	52%
Prescriptions data	–	85%
Mortality data	–	85%
Emergency health-care data	–	76%
EHR data	–	79%
Synthetic data	–	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✗	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✗	50%
With rules for health data sharing with private companies for public-interest research	✓	40%
With rules for cross-border sharing of health data for research	✓	30%

Applications and opportunities of using AI for health

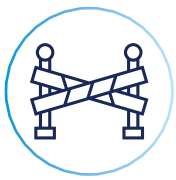
Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	–	40%	–
Conversational platforms ("chatbots") for patient assistance	–	50%	–
AI-assisted surgery/medical robotics to optimize surgical skills	–	38%	–
AI-assisted diagnostics	–	64%	–
AI-assisted prognosis prediction (risk stratification)	–	36%	–
AI-assisted symptom checkers and support in treatment decisions	–	38%	–
AI-assisted remote patient monitoring	–	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●●●

Barriers to AI uptake in health care



Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●
Legal uncertainty	●●●
AI product approval processes	●●●
Infrastructure	●●●
Data quality and standards	●●●
Financial affordability	●●●●
Evidence	●●●●
Capacity	●●
Job displacements	●
Trust	●●
Cultural impact	●
Environmental impact	●

Greece

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✓	66%	2024	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✗	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✗	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	–	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✓	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✓	32%
Not specifically on AI-driven technologies in health	✓	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✗	42%
• health-care providers	✗	75%
• academia	✓	67%
• industry leaders	✓	64%
• governmental actors	✓	81%
• regulators	✓	56%
• professional associations	✗	56%
• AI developers	✗	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✓	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	✗	20%
As part of in-service training requirements (i.e. after deployment)	✗	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✓	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✓	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✓	22%
Adopted a risk-based approach	–	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	–	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✓	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	–	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	–	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✗	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	–	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	–	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	–	28%
Post-market monitoring and surveillance of AI products	–	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✓	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	–	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	–	66%	–	–
National health data governance framework	–	50%	~	~
Health data authority	–	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	–	66%
Standard requirements for the creation of health data warehouses	–	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	–	30%
Genomic data	–	15%
Primary care data	–	79%
Hospital inpatient data	–	97%
Administrative data	–	88%
Cancer registry data	–	76%
Diabetes registry data	–	58%
Specific disease data	–	73%
Paediatric critical care data	–	52%
Prescriptions data	–	85%
Mortality data	–	85%
Emergency health-care data	–	76%
EHR data	–	79%
Synthetic data	–	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	–	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	–	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	–	50%
With rules for health data sharing with private companies for public-interest research	–	40%
With rules for cross-border sharing of health data for research	–	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✗	40%	–
Conversational platforms ("chatbots") for patient assistance	✗	50%	–
AI-assisted surgery/medical robotics to optimize surgical skills	✗	38%	–
AI-assisted diagnostics	✗	64%	–
AI-assisted prognosis prediction (risk stratification)	✗	36%	–
AI-assisted symptom checkers and support in treatment decisions	✗	38%	–
AI-assisted remote patient monitoring	✗	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●●
Legal uncertainty	●●●●
AI product approval processes	●●●●
Infrastructure	●
Data quality and standards	●●●
Financial affordability	●
Evidence	●●●●
Capacity	●●●
Job displacements	●●●●
Trust	●●●●
Cultural impact	●●●●
Environmental impact	●

Hungary

Legend

Country response

✓	Yes	✗	No	!	Under development	–	Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

●●●●	Major relevance
●●●	Moderate relevance
●●	Minor relevance
●	No relevance

Importance

●●●●	Major importance
●●●	Moderate importance
●●	Minor importance
●	No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✓	66%	2020	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✗	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✓	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✗	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✓	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✓	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✓	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✗	42%
• health-care providers	✓	75%
• academia	✓	67%
• industry leaders	✗	64%
• governmental actors	✓	81%
• regulators	✓	56%
• professional associations	✓	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	–	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	!	20%
As part of in-service training requirements (i.e. after deployment)	✓	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✓	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✓	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✓	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✗	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✗	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✗	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✓	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✗	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✓	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✗	28%
Post-market monitoring and surveillance of AI products	✗	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✓	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✓	20%

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✗	66%	–	–
National health data governance framework	✓	50%	~	~
Health data authority	✗	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✗	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✗	30%
Genomic data	✗	15%
Primary care data	✓	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✗	76%
Diabetes registry data	✗	58%
Specific disease data	✗	73%
Paediatric critical care data	✓	52%
Prescriptions data	✓	85%
Mortality data	✓	85%
Emergency health-care data	✓	76%
EHR data	✓	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✗	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✓	50%
With rules for health data sharing with private companies for public-interest research	✓	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

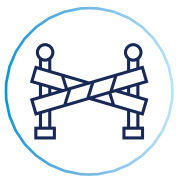
Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✗	40%	–
Conversational platforms ("chatbots") for patient assistance	✓	50%	Established
AI-assisted surgery/medical robotics to optimize surgical skills	✗	38%	–
AI-assisted diagnostics	✓	64%	Established
AI-assisted prognosis prediction (risk stratification)	✓	36%	Pilot
AI-assisted symptom checkers and support in treatment decisions	–	38%	–
AI-assisted remote patient monitoring	✓	32%	Pilot

Opportunities driving development

	Country response
Reducing health inequalities	●●●●
Improving patient care and health outcomes	●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●
Advancing health research and accelerating drug discovery	●●

Barriers to AI uptake in health care



Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●●
Legal uncertainty	●●●
AI product approval processes	●●
Infrastructure	●
Data quality and standards	●●●●
Financial affordability	●●●
Evidence	●●●
Capacity	●●
Job displacements	●●
Trust	●●
Cultural impact	●●
Environmental impact	●

Iceland

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✓	66%	2021	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✗	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✗	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✗	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	–	22%
• patient associations	–	42%
• health-care providers	–	75%
• academia	–	67%
• industry leaders	–	64%
• governmental actors	–	81%
• regulators	–	56%
• professional associations	–	56%
• AI developers	–	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✗	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	✗	20%
As part of in-service training requirements (i.e. after deployment)	✗	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✗	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✓	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✗	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✗	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✗	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✓	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✗	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✗	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✗	28%
Post-market monitoring and surveillance of AI products	✗	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	–	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2001	2020
National health data governance framework	✓	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✗	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✓	30%
Genomic data	✗	15%
Primary care data	✓	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✓	76%
Diabetes registry data	✗	58%
Specific disease data	✓	73%
Paediatric critical care data	✗	52%
Prescriptions data	✓	85%
Mortality data	✓	85%
Emergency health-care data	✓	76%
EHR data	✓	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✓	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✓	50%
With rules for health data sharing with private companies for public-interest research	✓	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✗	40%	–
Conversational platforms ("chatbots") for patient assistance	✓	50%	Pilot
AI-assisted surgery/medical robotics to optimize surgical skills	✓	38%	Pilot
AI-assisted diagnostics	✓	64%	Pilot
AI-assisted prognosis prediction (risk stratification)	✗	36%	–
AI-assisted symptom checkers and support in treatment decisions	✓	38%	Pilot
AI-assisted remote patient monitoring	✗	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●●
Legal uncertainty	●●●●
AI product approval processes	●●●●
Infrastructure	●●
Data quality and standards	●●●
Financial affordability	●●●●
Evidence	●●●
Capacity	●●●
Job displacements	●
Trust	●●
Cultural impact	●●
Environmental impact	●

Ireland

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✓	66%	2021	2025

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✗	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✓	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✗	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	–	22%
• patient associations	–	42%
• health-care providers	–	75%
• academia	–	67%
• industry leaders	–	64%
• governmental actors	–	81%
• regulators	–	56%
• professional associations	–	56%
• AI developers	–	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✗	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✗	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	–	20%
As part of in-service training requirements (i.e. after deployment)	–	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✗	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✓	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✗	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✓	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✗	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✗	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✗	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✗	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✗	28%
Post-market monitoring and surveillance of AI products	✗	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✗	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✗	66%	–	–
National health data governance framework	✗	50%	~	~
Health data authority	✗	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✗	66%
Standard requirements for the creation of health data warehouses	✗	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	–	30%
Genomic data	–	15%
Primary care data	–	79%
Hospital inpatient data	–	97%
Administrative data	–	88%
Cancer registry data	–	76%
Diabetes registry data	–	58%
Specific disease data	–	73%
Paediatric critical care data	–	52%
Prescriptions data	–	85%
Mortality data	–	85%
Emergency health-care data	–	76%
EHR data	–	79%
Synthetic data	–	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✗	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✗	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✗	50%
With rules for health data sharing with private companies for public-interest research	✗	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✓	40%	Informal
Conversational platforms ("chatbots") for patient assistance	✓	50%	Informal
AI-assisted surgery/medical robotics to optimize surgical skills	–	38%	–
AI-assisted diagnostics	✓	64%	Pilot
AI-assisted prognosis prediction (risk stratification)	✗	36%	–
AI-assisted symptom checkers and support in treatment decisions	✗	38%	–
AI-assisted remote patient monitoring	✗	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●●
Improving patient care and health outcomes	●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●
Advancing health research and accelerating drug discovery	●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●●
Legal uncertainty	●●●●
AI product approval processes	●●●
Infrastructure	●●●●
Data quality and standards	●●●
Financial affordability	●●●●
Evidence	●●●
Capacity	●●●●
Job displacements	●●
Trust	●●
Cultural impact	●●
Environmental impact	●●●

Israel

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	!	8%	–	~
Cross-sector AI strategy	✓	66%	2023	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✗	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✓	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	!	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✓	44%
Through surveys and interviews	✓	26%
Through expert and focus groups	✓	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✓	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	✓	22%
• patient associations	✓	42%
• health-care providers	✓	75%
• academia	✓	67%
• industry leaders	✓	64%
• governmental actors	✓	81%
• regulators	✓	56%
• professional associations	✓	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	–	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	✓	20%
As part of in-service training requirements (i.e. after deployment)	✓	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✓	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✓	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✓	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✓	22%
Adopted a risk-based approach	✓	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✓	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✓	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✓	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✓	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✓	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✓	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✗	28%
Post-market monitoring and surveillance of AI products	✓	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	–	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2017	2024
National health data governance framework	✓	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✗	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✓	30%
Genomic data	✗	15%
Primary care data	✓	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✓	76%
Diabetes registry data	✓	58%
Specific disease data	✓	73%
Paediatric critical care data	✓	52%
Prescriptions data	✓	85%
Mortality data	✓	85%
Emergency health-care data	✓	76%
EHR data	✓	79%
Synthetic data	✓	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✓	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✓	50%
With rules for health data sharing with private companies for public-interest research	✓	40%
With rules for cross-border sharing of health data for research	✓	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✔	40%	Pilot
Conversational platforms ("chatbots") for patient assistance	✔	50%	Pilot
AI-assisted surgery/medical robotics to optimize surgical skills	✔	38%	Pilot
AI-assisted diagnostics	✔	64%	Established
AI-assisted prognosis prediction (risk stratification)	✔	36%	Established
AI-assisted symptom checkers and support in treatment decisions	✔	38%	Pilot
AI-assisted remote patient monitoring	✔	32%	Pilot

Opportunities driving development

	Country response
Reducing health inequalities	●●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●
Advancing health research and accelerating drug discovery	●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●
Legal uncertainty	●●
AI product approval processes	●●●
Infrastructure	●●
Data quality and standards	●●●
Financial affordability	●●
Evidence	●●●●
Capacity	●●●●
Job displacements	●●
Trust	●●●
Cultural impact	●●●
Environmental impact	●●

Italy

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	!	8%	–	~
Cross-sector AI strategy	✓	66%	2022	2024

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✗	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✗	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	!	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✓	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✓	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✗	42%
• health-care providers	✗	75%
• academia	✓	67%
• industry leaders	✗	64%
• governmental actors	✓	81%
• regulators	✗	56%
• professional associations	✗	56%
• AI developers	✗	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	–	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	–	20%
As part of in-service training requirements (i.e. after deployment)	✗	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✓	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✓	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✓	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✓	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✗	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✓	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✓	10%
Specific practical guidance on data protection impact assessment	✓	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✗	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	–	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✓	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✓	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✗	28%
Post-market monitoring and surveillance of AI products	✗	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✗	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2022	–
National health data governance framework	!	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✓	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✗	30%
Genomic data	✗	15%
Primary care data	✗	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✗	76%
Diabetes registry data	✗	58%
Specific disease data	✗	73%
Paediatric critical care data	✗	52%
Prescriptions data	✓	85%
Mortality data	✓	85%
Emergency health-care data	✓	76%
EHR data	✓	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✗	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✗	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✗	50%
With rules for health data sharing with private companies for public-interest research	✗	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✔	40%	Informal
Conversational platforms ("chatbots") for patient assistance	✔	50%	Informal
AI-assisted surgery/medical robotics to optimize surgical skills	✔	38%	Informal
AI-assisted diagnostics	✔	64%	Informal
AI-assisted prognosis prediction (risk stratification)	✔	36%	Informal
AI-assisted symptom checkers and support in treatment decisions	✔	38%	Informal
AI-assisted remote patient monitoring	✔	32%	Informal

Opportunities driving development

	Country response
Reducing health inequalities	●●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●●
Legal uncertainty	●●●●
AI product approval processes	●●●●
Infrastructure	●●●
Data quality and standards	●●●●
Financial affordability	●●●
Evidence	●●
Capacity	●●●
Job displacements	●●●●
Trust	●●●●
Cultural impact	●●●●
Environmental impact	●●

Kazakhstan

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	!	66%	–	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✓	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✓	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	!	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✓	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✓	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✓	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✗	42%
• health-care providers	✓	75%
• academia	✗	67%
• industry leaders	✗	64%
• governmental actors	✗	81%
• regulators	✗	56%
• professional associations	✓	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✗	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	!	20%
As part of in-service training requirements (i.e. after deployment)	!	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	–	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✓	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✓	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✓	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✓	22%
Adopted a risk-based approach	✗	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	!	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✓	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✓	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✗	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✓	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✗	28%
Post-market monitoring and surveillance of AI products	✗	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✓	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✗	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✗	66%	–	–
National health data governance framework	✓	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✓	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✗	30%
Genomic data	✗	15%
Primary care data	✓	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✓	76%
Diabetes registry data	✓	58%
Specific disease data	✓	73%
Paediatric critical care data	✓	52%
Prescriptions data	✓	85%
Mortality data	✓	85%
Emergency health-care data	✓	76%
EHR data	✓	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✗	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✓	50%
With rules for health data sharing with private companies for public-interest research	✗	40%
With rules for cross-border sharing of health data for research	✓	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✗	40%	–
Conversational platforms ("chatbots") for patient assistance	✓	50%	Established
AI-assisted surgery/medical robotics to optimize surgical skills	✗	38%	–
AI-assisted diagnostics	✓	64%	Pilot
AI-assisted prognosis prediction (risk stratification)	✗	36%	–
AI-assisted symptom checkers and support in treatment decisions	✓	38%	Informal
AI-assisted remote patient monitoring	✓	32%	Pilot

Opportunities driving development

	Country response
Reducing health inequalities	●●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●
Advancing health research and accelerating drug discovery	●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●●
Legal uncertainty	●●●●
AI product approval processes	●●●●
Infrastructure	●●●
Data quality and standards	●●●
Financial affordability	●●●
Evidence	●●●●
Capacity	●●●
Job displacements	●
Trust	●●●
Cultural impact	●●
Environmental impact	●●

Kyrgyzstan

Legend

Country response

✓	Yes	✗	No	!	Under development	–	Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

●●●●	Major relevance
●●●	Moderate relevance
●●	Minor relevance
●	No relevance

Importance

●●●●	Major importance
●●●	Moderate importance
●●	Minor importance
●	No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✗	66%	–	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	–	46%
A new government agency or body/unit	–	12%
An expert advisory council or board	–	17%
A new independent body or entity funded by government	–	7%
Multiple agencies or bodies/units with responsibility	–	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	–	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✓	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✓	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✗	42%
• health-care providers	✓	75%
• academia	✗	67%
• industry leaders	✗	64%
• governmental actors	✗	81%
• regulators	✗	56%
• professional associations	✗	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✗	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✗	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	!	20%
As part of in-service training requirements (i.e. after deployment)	✗	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✗	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✓	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✗	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✗	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	–	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	–	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	–	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	–	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	–	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	–	28%
Post-market monitoring and surveillance of AI products	–	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✗	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2018	2024
National health data governance framework	✓	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✓	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✗	30%
Genomic data	✗	15%
Primary care data	✓	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✗	76%
Diabetes registry data	✗	58%
Specific disease data	✓	73%
Paediatric critical care data	✓	52%
Prescriptions data	✓	85%
Mortality data	✓	85%
Emergency health-care data	✗	76%
EHR data	✓	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	–	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✗	50%
With rules for health data sharing with private companies for public-interest research	✗	40%
With rules for cross-border sharing of health data for research	✓	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✗	40%	–
Conversational platforms ("chatbots") for patient assistance	✗	50%	–
AI-assisted surgery/medical robotics to optimize surgical skills	✗	38%	–
AI-assisted diagnostics	✗	64%	–
AI-assisted prognosis prediction (risk stratification)	✗	36%	–
AI-assisted symptom checkers and support in treatment decisions	✗	38%	–
AI-assisted remote patient monitoring	✗	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●●
Legal uncertainty	●●●●
AI product approval processes	●●●
Infrastructure	●●●
Data quality and standards	●●
Financial affordability	●●●●
Evidence	●●●
Capacity	●●●
Job displacements	●●
Trust	●●●
Cultural impact	●●
Environmental impact	●●

Latvia

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✗	66%	–	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	–	46%
A new government agency or body/unit	–	12%
An expert advisory council or board	–	17%
A new independent body or entity funded by government	–	7%
Multiple agencies or bodies/units with responsibility	–	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	!	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✓	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✓	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✓	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✓	42%
• health-care providers	✓	75%
• academia	✓	67%
• industry leaders	✓	64%
• governmental actors	✗	81%
• regulators	✓	56%
• professional associations	✓	56%
• AI developers	✗	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	–	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	!	20%
As part of in-service training requirements (i.e. after deployment)	!	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	–	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✓	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✗	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✗	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✓	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✗	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✗	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✗	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✗	28%
Post-market monitoring and surveillance of AI products	✗	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	–	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✗	66%	–	–
National health data governance framework	✓	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✗	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✗	30%
Genomic data	✓	15%
Primary care data	✗	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✓	76%
Diabetes registry data	✓	58%
Specific disease data	✓	73%
Paediatric critical care data	✗	52%
Prescriptions data	✓	85%
Mortality data	✓	85%
Emergency health-care data	✓	76%
EHR data	✓	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✗	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✓	50%
With rules for health data sharing with private companies for public-interest research	✗	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✓	40%	Established
Conversational platforms ("chatbots") for patient assistance	✓	50%	Established
AI-assisted surgery/medical robotics to optimize surgical skills	✓	38%	Informal
AI-assisted diagnostics	✓	64%	Pilot
AI-assisted prognosis prediction (risk stratification)	–	36%	–
AI-assisted symptom checkers and support in treatment decisions	✓	38%	Pilot
AI-assisted remote patient monitoring	✗	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●
Increasing health system efficiencies	●●●
Advancing health research and accelerating drug discovery	●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●
Legal uncertainty	●●●
AI product approval processes	●●●
Infrastructure	●●
Data quality and standards	●●●●
Financial affordability	●●●●
Evidence	●●●
Capacity	●●
Job displacements	●●
Trust	●
Cultural impact	●
Environmental impact	●

Lithuania

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✓	66%	2019	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✗	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✓	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✗	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✗	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✓	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✓	42%
• health-care providers	✓	75%
• academia	✓	67%
• industry leaders	✗	64%
• governmental actors	✓	81%
• regulators	✓	56%
• professional associations	✗	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✗	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	–	20%
As part of in-service training requirements (i.e. after deployment)	–	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	–	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✓	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✓	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✗	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✗	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✗	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	–	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	–	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✓	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	–	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	–	28%
Post-market monitoring and surveillance of AI products	–	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✗	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2019	–
National health data governance framework	✓	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	–	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✗	30%
Genomic data	✗	15%
Primary care data	✓	79%
Hospital inpatient data	✓	97%
Administrative data	✗	88%
Cancer registry data	✗	76%
Diabetes registry data	✗	58%
Specific disease data	✗	73%
Paediatric critical care data	✗	52%
Prescriptions data	✓	85%
Mortality data	✗	85%
Emergency health-care data	✓	76%
EHR data	✓	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✓	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	–	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✓	50%
With rules for health data sharing with private companies for public-interest research	–	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	–	40%	–
Conversational platforms ("chatbots") for patient assistance	✗	50%	–
AI-assisted surgery/medical robotics to optimize surgical skills	✗	38%	–
AI-assisted diagnostics	✓	64%	Established
AI-assisted prognosis prediction (risk stratification)	–	36%	–
AI-assisted symptom checkers and support in treatment decisions	–	38%	–
AI-assisted remote patient monitoring	✗	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●
Advancing health research and accelerating drug discovery	●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●
Legal uncertainty	●●
AI product approval processes	●●
Infrastructure	●●
Data quality and standards	●●●
Financial affordability	●●●
Evidence	●●
Capacity	●●●
Job displacements	●●
Trust	●●
Cultural impact	●●
Environmental impact	●

Luxembourg

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✓	66%	2019	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✗	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✗	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	!	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	–	22%
• patient associations	–	42%
• health-care providers	–	75%
• academia	–	67%
• industry leaders	–	64%
• governmental actors	–	81%
• regulators	–	56%
• professional associations	–	56%
• AI developers	–	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	–	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	✗	20%
As part of in-service training requirements (i.e. after deployment)	✗	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✗	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✓	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✓	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✗	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✓	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✗	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	–	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	–	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	–	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	–	28%
Post-market monitoring and surveillance of AI products	–	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	–	20%

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✗	66%	–	–
National health data governance framework	!	50%	~	~
Health data authority	✗	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✗	66%
Standard requirements for the creation of health data warehouses	✗	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	–	30%
Genomic data	–	15%
Primary care data	–	79%
Hospital inpatient data	–	97%
Administrative data	–	88%
Cancer registry data	–	76%
Diabetes registry data	–	58%
Specific disease data	–	73%
Paediatric critical care data	–	52%
Prescriptions data	–	85%
Mortality data	–	85%
Emergency health-care data	–	76%
EHR data	–	79%
Synthetic data	–	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✗	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	–	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✗	50%
With rules for health data sharing with private companies for public-interest research	✗	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✓	40%	Informal
Conversational platforms ("chatbots") for patient assistance	✗	50%	–
AI-assisted surgery/medical robotics to optimize surgical skills	–	38%	–
AI-assisted diagnostics	✓	64%	Pilot
AI-assisted prognosis prediction (risk stratification)	–	36%	–
AI-assisted symptom checkers and support in treatment decisions	✗	38%	–
AI-assisted remote patient monitoring	✗	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●
Advancing health research and accelerating drug discovery	●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●
Legal uncertainty	●●●
AI product approval processes	●●●●
Infrastructure	●●
Data quality and standards	●●●
Financial affordability	●
Evidence	●●●
Capacity	●●
Job displacements	●●
Trust	●●●
Cultural impact	●●●
Environmental impact	●

Malta

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✓	66%	2019	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✗	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✓	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✗	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✓	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✗	42%
• health-care providers	✓	75%
• academia	✓	67%
• industry leaders	✗	64%
• governmental actors	✓	81%
• regulators	✓	56%
• professional associations	✗	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✗	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	!	20%
As part of in-service training requirements (i.e. after deployment)	!	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✓	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✓	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✓	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✓	22%
Adopted a risk-based approach	✓	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✓	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✓	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✓	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✓	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✓	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✓	28%
Post-market monitoring and surveillance of AI products	✗	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✓	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✓	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2024	–
National health data governance framework	✗	50%	~	~
Health data authority	✗	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	–	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✗	30%
Genomic data	✗	15%
Primary care data	✗	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✓	76%
Diabetes registry data	✗	58%
Specific disease data	✓	73%
Paediatric critical care data	✗	52%
Prescriptions data	✗	85%
Mortality data	✓	85%
Emergency health-care data	✓	76%
EHR data	✓	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✓	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✓	50%
With rules for health data sharing with private companies for public-interest research	–	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✓	40%	Pilot
Conversational platforms ("chatbots") for patient assistance	✗	50%	–
AI-assisted surgery/medical robotics to optimize surgical skills	✗	38%	–
AI-assisted diagnostics	✓	64%	Pilot
AI-assisted prognosis prediction (risk stratification)	✗	36%	–
AI-assisted symptom checkers and support in treatment decisions	✗	38%	–
AI-assisted remote patient monitoring	✗	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●
Legal uncertainty	●●●●
AI product approval processes	●●●
Infrastructure	●●●
Data quality and standards	●●●●
Financial affordability	●●●●
Evidence	●●●
Capacity	●●●●
Job displacements	●●
Trust	●●
Cultural impact	●●
Environmental impact	●●

Montenegro

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✗	66%	–	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	–	46%
A new government agency or body/unit	–	12%
An expert advisory council or board	–	17%
A new independent body or entity funded by government	–	7%
Multiple agencies or bodies/units with responsibility	–	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	!	8%

Engaging stakeholders and building workforce capacity

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	-	22%
• patient associations	-	42%
• health-care providers	-	75%
• academia	-	67%
• industry leaders	-	64%
• governmental actors	-	81%
• regulators	-	56%
• professional associations	-	56%
• AI developers	-	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✗	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	!	20%
As part of in-service training requirements (i.e. after deployment)	!	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✗	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✓	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✓	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	!	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✓	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✓	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✗	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✗	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✓	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✗	28%
Post-market monitoring and surveillance of AI products	✗	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✗	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2024	–
National health data governance framework	✗	50%	~	~
Health data authority	✗	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	!	66%
Standard requirements for the creation of health data warehouses	✓	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	–	30%
Genomic data	–	15%
Primary care data	–	79%
Hospital inpatient data	–	97%
Administrative data	–	88%
Cancer registry data	–	76%
Diabetes registry data	–	58%
Specific disease data	–	73%
Paediatric critical care data	–	52%
Prescriptions data	–	85%
Mortality data	–	85%
Emergency health-care data	–	76%
EHR data	–	79%
Synthetic data	–	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✗	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✗	50%
With rules for health data sharing with private companies for public-interest research	✓	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✗	40%	–
Conversational platforms ("chatbots") for patient assistance	✗	50%	–
AI-assisted surgery/medical robotics to optimize surgical skills	✗	38%	–
AI-assisted diagnostics	✗	64%	–
AI-assisted prognosis prediction (risk stratification)	✗	36%	–
AI-assisted symptom checkers and support in treatment decisions	✗	38%	–
AI-assisted remote patient monitoring	✗	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●
Legal uncertainty	●●
AI product approval processes	●●
Infrastructure	●●●●
Data quality and standards	●●●●
Financial affordability	●●●●
Evidence	●●
Capacity	●●●●
Job displacements	●●●
Trust	●●
Cultural impact	●●
Environmental impact	●●

Netherlands (Kingdom of the)

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✓	66%	2019	2019

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✗	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✓	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	!	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✓	44%
Through surveys and interviews	✓	26%
Through expert and focus groups	✓	46%
Through public hearings or online public consultations	✓	16%
Through targeted consultations of specific stakeholder groups	✓	32%
Not specifically on AI-driven technologies in health	✓	20%
Of these the stakeholders involved were:		
• the broader public	✓	22%
• patient associations	✓	42%
• health-care providers	✓	75%
• academia	✓	67%
• industry leaders	✓	64%
• governmental actors	✓	81%
• regulators	✓	56%
• professional associations	✗	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	–	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	✗	20%
As part of in-service training requirements (i.e. after deployment)	–	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✓	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✓	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✓	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✓	34%
Development of focused sector-specific mandatory new laws and rules on AI	✓	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✓	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✓	22%
Adopted a risk-based approach	✓	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	!	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✓	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✓	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✓	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✓	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✓	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✓	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✓	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✓	28%
Post-market monitoring and surveillance of AI products	✓	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✓	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✓	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	–	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	–	–
National health data governance framework	!	50%	~	~
Health data authority	–	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	!	66%
Standard requirements for the creation of health data warehouses	✓	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	–	30%
Genomic data	–	15%
Primary care data	–	79%
Hospital inpatient data	–	97%
Administrative data	–	88%
Cancer registry data	–	76%
Diabetes registry data	–	58%
Specific disease data	–	73%
Paediatric critical care data	–	52%
Prescriptions data	–	85%
Mortality data	–	85%
Emergency health-care data	–	76%
EHR data	–	79%
Synthetic data	–	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	–	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✗	50%
With rules for health data sharing with private companies for public-interest research	✓	40%
With rules for cross-border sharing of health data for research	–	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✓	40%	Pilot
Conversational platforms ("chatbots") for patient assistance	✓	50%	Pilot
AI-assisted surgery/medical robotics to optimize surgical skills	✗	38%	–
AI-assisted diagnostics	✓	64%	Established
AI-assisted prognosis prediction (risk stratification)	✓	36%	Established
AI-assisted symptom checkers and support in treatment decisions	–	38%	–
AI-assisted remote patient monitoring	✓	32%	Informal

Opportunities driving development

	Country response
Reducing health inequalities	●
Improving patient care and health outcomes	●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●
Legal uncertainty	●●●
AI product approval processes	●●
Infrastructure	●●●
Data quality and standards	●●●●
Financial affordability	●●●●
Evidence	●●●●
Capacity	●●●
Job displacements	●●●
Trust	●●
Cultural impact	●●
Environmental impact	●

North Macedonia

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✗	66%	–	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	–	46%
A new government agency or body/unit	–	12%
An expert advisory council or board	–	17%
A new independent body or entity funded by government	–	7%
Multiple agencies or bodies/units with responsibility	–	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✗	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	–	22%
• patient associations	–	42%
• health-care providers	–	75%
• academia	–	67%
• industry leaders	–	64%
• governmental actors	–	81%
• regulators	–	56%
• professional associations	–	56%
• AI developers	–	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	–	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✗	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	!	20%
As part of in-service training requirements (i.e. after deployment)	!	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✗	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✓	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✓	34%
Development of focused sector-specific mandatory new laws and rules on AI	✓	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	–	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✗	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✓	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	–	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✗	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✗	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	–	28%
Post-market monitoring and surveillance of AI products	–	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	–	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✗	66%	–	–
National health data governance framework	✗	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✗	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✓	30%
Genomic data	✗	15%
Primary care data	✓	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✓	76%
Diabetes registry data	✓	58%
Specific disease data	✓	73%
Paediatric critical care data	✓	52%
Prescriptions data	✓	85%
Mortality data	✓	85%
Emergency health-care data	✓	76%
EHR data	✓	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✗	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	–	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✗	50%
With rules for health data sharing with private companies for public-interest research	✓	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✗	40%	–
Conversational platforms ("chatbots") for patient assistance	–	50%	–
AI-assisted surgery/medical robotics to optimize surgical skills	✓	38%	Informal
AI-assisted diagnostics	✓	64%	Informal
AI-assisted prognosis prediction (risk stratification)	–	36%	–
AI-assisted symptom checkers and support in treatment decisions	–	38%	–
AI-assisted remote patient monitoring	–	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●●
Legal uncertainty	●●●●
AI product approval processes	●●●
Infrastructure	●●●
Data quality and standards	●●
Financial affordability	●●●●
Evidence	●●●
Capacity	●●●
Job displacements	●
Trust	●●
Cultural impact	●●
Environmental impact	●●

Norway

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✓	66%	2020	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✓	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✓	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✓	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✓	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✓	44%
Through surveys and interviews	✓	26%
Through expert and focus groups	✓	46%
Through public hearings or online public consultations	✓	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✓	42%
• health-care providers	✓	75%
• academia	✓	67%
• industry leaders	✓	64%
• governmental actors	✓	81%
• regulators	✓	56%
• professional associations	✓	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	–	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	✓	20%
As part of in-service training requirements (i.e. after deployment)	✓	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✓	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✓	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✓	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✓	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✓	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✓	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✓	22%
Adopted a risk-based approach	✓	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✓	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✓	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✓	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	–	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✓	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✓	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✓	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✓	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✓	28%
Post-market monitoring and surveillance of AI products	✓	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✓	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✓	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2010	–
National health data governance framework	✓	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	–	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✗	30%
Genomic data	✗	15%
Primary care data	✓	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✓	76%
Diabetes registry data	✓	58%
Specific disease data	✓	73%
Paediatric critical care data	✓	52%
Prescriptions data	✓	85%
Mortality data	✓	85%
Emergency health-care data	✓	76%
EHR data	✗	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✓	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	–	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✓	50%
With rules for health data sharing with private companies for public-interest research	–	40%
With rules for cross-border sharing of health data for research	✓	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✓	40%	Established
Conversational platforms ("chatbots") for patient assistance	✓	50%	Established
AI-assisted surgery/medical robotics to optimize surgical skills	–	38%	–
AI-assisted diagnostics	✓	64%	Established
AI-assisted prognosis prediction (risk stratification)	–	36%	–
AI-assisted symptom checkers and support in treatment decisions	–	38%	–
AI-assisted remote patient monitoring	✓	32%	Pilot

Opportunities driving development

	Country response
Reducing health inequalities	●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●
Legal uncertainty	●●●●
AI product approval processes	●●●●
Infrastructure	●●●
Data quality and standards	●●●●
Financial affordability	●●●
Evidence	●●●●
Capacity	●●●●
Job displacements	●●●
Trust	●●●●
Cultural impact	●●●
Environmental impact	●●●

Poland

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✓	66%	2020	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✓	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✗	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	!	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✓	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✓	42%
• health-care providers	✓	75%
• academia	✓	67%
• industry leaders	✓	64%
• governmental actors	✓	81%
• regulators	✓	56%
• professional associations	✓	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	–	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	–	20%
As part of in-service training requirements (i.e. after deployment)	–	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✓	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✓	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✗	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✓	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✓	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	–	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✗	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✗	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✗	28%
Post-market monitoring and surveillance of AI products	✗	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✓	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✗	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2021	–
National health data governance framework	✓	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✗	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✗	30%
Genomic data	✗	15%
Primary care data	✗	79%
Hospital inpatient data	✗	97%
Administrative data	✗	88%
Cancer registry data	✗	76%
Diabetes registry data	✗	58%
Specific disease data	✗	73%
Paediatric critical care data	✗	52%
Prescriptions data	✓	85%
Mortality data	✗	85%
Emergency health-care data	✗	76%
EHR data	✓	79%
Synthetic data	✓	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✗	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✗	50%
With rules for health data sharing with private companies for public-interest research	✗	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✔	40%	Pilot
Conversational platforms ("chatbots") for patient assistance	✔	50%	Established
AI-assisted surgery/medical robotics to optimize surgical skills	✔	38%	Pilot
AI-assisted diagnostics	✔	64%	Pilot
AI-assisted prognosis prediction (risk stratification)	✔	36%	Informal
AI-assisted symptom checkers and support in treatment decisions	✔	38%	Informal
AI-assisted remote patient monitoring	✔	32%	Pilot

Opportunities driving development

	Country response
Reducing health inequalities	●●●
Improving patient care and health outcomes	●●●
Reducing pressure on the health-care workforce	●●●
Increasing health system efficiencies	●●●
Advancing health research and accelerating drug discovery	●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●
Legal uncertainty	●●●
AI product approval processes	●●
Infrastructure	●●
Data quality and standards	●●●
Financial affordability	●●
Evidence	●●
Capacity	●●●
Job displacements	●●
Trust	●●●
Cultural impact	●●
Environmental impact	●●

Portugal

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✓	66%	2019	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✗	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✓	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✗	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	–	22%
• patient associations	–	42%
• health-care providers	–	75%
• academia	–	67%
• industry leaders	–	64%
• governmental actors	–	81%
• regulators	–	56%
• professional associations	–	56%
• AI developers	–	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✓	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	✗	20%
As part of in-service training requirements (i.e. after deployment)	✗	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✓	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✓	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	–	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✗	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✗	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✓	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✗	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✗	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✗	28%
Post-market monitoring and surveillance of AI products	✗	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✓	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✗	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2021	–
National health data governance framework	✓	50%	~	~
Health data authority	✗	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✓	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✗	30%
Genomic data	✗	15%
Primary care data	✓	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✗	76%
Diabetes registry data	✗	58%
Specific disease data	✗	73%
Paediatric critical care data	✓	52%
Prescriptions data	✓	85%
Mortality data	✓	85%
Emergency health-care data	✓	76%
EHR data	✓	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✓	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✓	50%
With rules for health data sharing with private companies for public-interest research	✓	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

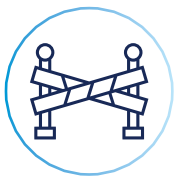
Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	–	40%	–
Conversational platforms ("chatbots") for patient assistance	✓	50%	Established
AI-assisted surgery/medical robotics to optimize surgical skills	✓	38%	Established
AI-assisted diagnostics	✓	64%	Established
AI-assisted prognosis prediction (risk stratification)	✗	36%	–
AI-assisted symptom checkers and support in treatment decisions	✗	38%	–
AI-assisted remote patient monitoring	✗	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●●

Barriers to AI uptake in health care



Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●
Legal uncertainty	●●●●
AI product approval processes	●●●●
Infrastructure	●●●●
Data quality and standards	●●●
Financial affordability	●●●
Evidence	●●●
Capacity	●●●●
Job displacements	●●●
Trust	●●●
Cultural impact	●●●
Environmental impact	●●●

Republic of Moldova

Legend

Country response

✓	Yes	✗	No	!	Under development	–	Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

●●●●	Major relevance
●●●	Moderate relevance
●●	Minor relevance
●	No relevance

Importance

●●●●	Major importance
●●●	Moderate importance
●●	Minor importance
●	No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✗	66%	–	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	–	46%
A new government agency or body/unit	–	12%
An expert advisory council or board	–	17%
A new independent body or entity funded by government	–	7%
Multiple agencies or bodies/units with responsibility	–	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✗	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	–	22%
• patient associations	–	42%
• health-care providers	–	75%
• academia	–	67%
• industry leaders	–	64%
• governmental actors	–	81%
• regulators	–	56%
• professional associations	–	56%
• AI developers	–	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✗	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	–	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	!	20%
As part of in-service training requirements (i.e. after deployment)	!	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✓	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✓	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✓	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✓	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✓	22%
Adopted a risk-based approach	✗	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	!	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✓	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✓	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✗	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✗	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✗	28%
Post-market monitoring and surveillance of AI products	✗	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✗	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2023	–
National health data governance framework	✓	50%	~	~
Health data authority	✗	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	!	66%
Standard requirements for the creation of health data warehouses	✓	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	–	30%
Genomic data	–	15%
Primary care data	–	79%
Hospital inpatient data	–	97%
Administrative data	–	88%
Cancer registry data	–	76%
Diabetes registry data	–	58%
Specific disease data	–	73%
Paediatric critical care data	–	52%
Prescriptions data	–	85%
Mortality data	–	85%
Emergency health-care data	–	76%
EHR data	–	79%
Synthetic data	–	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	–	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✗	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✗	50%
With rules for health data sharing with private companies for public-interest research	✗	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✗	40%	–
Conversational platforms ("chatbots") for patient assistance	✗	50%	–
AI-assisted surgery/medical robotics to optimize surgical skills	✗	38%	–
AI-assisted diagnostics	✗	64%	–
AI-assisted prognosis prediction (risk stratification)	✗	36%	–
AI-assisted symptom checkers and support in treatment decisions	✗	38%	–
AI-assisted remote patient monitoring	✗	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●
Legal uncertainty	●●●
AI product approval processes	●●●
Infrastructure	●●
Data quality and standards	●●●
Financial affordability	●●●●
Evidence	●●●
Capacity	●●●●
Job displacements	●●●●
Trust	●●●
Cultural impact	●●●
Environmental impact	●●●●

Romania

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✓	66%	2024	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✗	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✓	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✗	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	–	22%
• patient associations	–	42%
• health-care providers	–	75%
• academia	–	67%
• industry leaders	–	64%
• governmental actors	–	81%
• regulators	–	56%
• professional associations	–	56%
• AI developers	–	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	–	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✓	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	✗	20%
As part of in-service training requirements (i.e. after deployment)	✗	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✗	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✓	24%
Amendment of existing laws and policies according to upcoming EU legislation	✓	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✓	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✓	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✗	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✗	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✓	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	–	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	–	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	–	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	–	28%
Post-market monitoring and surveillance of AI products	–	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	–	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✗	66%	–	–
National health data governance framework	✗	50%	~	~
Health data authority	✗	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✗	66%
Standard requirements for the creation of health data warehouses	✗	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	–	30%
Genomic data	–	15%
Primary care data	–	79%
Hospital inpatient data	–	97%
Administrative data	–	88%
Cancer registry data	–	76%
Diabetes registry data	–	58%
Specific disease data	–	73%
Paediatric critical care data	–	52%
Prescriptions data	–	85%
Mortality data	–	85%
Emergency health-care data	–	76%
EHR data	–	79%
Synthetic data	–	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✓	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✗	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✓	50%
With rules for health data sharing with private companies for public-interest research	✗	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	–	40%	–
Conversational platforms ("chatbots") for patient assistance	–	50%	–
AI-assisted surgery/medical robotics to optimize surgical skills	–	38%	–
AI-assisted diagnostics	–	64%	–
AI-assisted prognosis prediction (risk stratification)	–	36%	–
AI-assisted symptom checkers and support in treatment decisions	–	38%	–
AI-assisted remote patient monitoring	–	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●●
Improving patient care and health outcomes	●●●
Reducing pressure on the health-care workforce	●●
Increasing health system efficiencies	●●
Advancing health research and accelerating drug discovery	●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●●
Legal uncertainty	●●●
AI product approval processes	●●
Infrastructure	●●●●
Data quality and standards	●●●●
Financial affordability	●●●●
Evidence	●●
Capacity	●●●
Job displacements	●
Trust	●
Cultural impact	●●
Environmental impact	●

Russian Federation

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✓	66%	2019	2024

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✓	46%
A new government agency or body/unit	✓	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✓	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✓	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✓	44%
Through surveys and interviews	✓	26%
Through expert and focus groups	✓	46%
Through public hearings or online public consultations	✓	16%
Through targeted consultations of specific stakeholder groups	✓	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	✓	22%
• patient associations	✗	42%
• health-care providers	✓	75%
• academia	✓	67%
• industry leaders	✓	64%
• governmental actors	✓	81%
• regulators	✓	56%
• professional associations	✓	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✓	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	✓	20%
As part of in-service training requirements (i.e. after deployment)	✓	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✓	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✓	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✓	22%
Amendment of existing laws and policies	✓	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✓	34%
Development of focused sector-specific mandatory new laws and rules on AI	✓	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✓	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✓	22%
Adopted a risk-based approach	✓	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✓	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✓	10%
Specific practical guidance on data protection impact assessment	✓	20%
Specific practical guidance on AI and fundamental rights impact assessment	✓	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✓	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✓	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✓	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✔	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✔	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✔	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✔	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✔	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✔	28%
Post-market monitoring and surveillance of AI products	✔	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✔	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✔	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✔	10%
Policies and processes for the certification of AI systems in health care	✔	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	–	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2022	–
National health data governance framework	✓	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✓	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✗	30%
Genomic data	✗	15%
Primary care data	✓	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✓	76%
Diabetes registry data	✓	58%
Specific disease data	✓	73%
Paediatric critical care data	✓	52%
Prescriptions data	✓	85%
Mortality data	✓	85%
Emergency health-care data	✓	76%
EHR data	✓	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	–	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✓	50%
With rules for health data sharing with private companies for public-interest research	✗	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✗	40%	–
Conversational platforms ("chatbots") for patient assistance	✓	50%	Established
AI-assisted surgery/medical robotics to optimize surgical skills	✓	38%	Pilot
AI-assisted diagnostics	✓	64%	Established
AI-assisted prognosis prediction (risk stratification)	✓	36%	Established
AI-assisted symptom checkers and support in treatment decisions	✓	38%	Established
AI-assisted remote patient monitoring	✓	32%	Established

Opportunities driving development

	Country response
Reducing health inequalities	●●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●
Legal uncertainty	●●●
AI product approval processes	●●
Infrastructure	●●
Data quality and standards	●●
Financial affordability	●●
Evidence	●●
Capacity	●●
Job displacements	●●
Trust	●●
Cultural impact	●●●
Environmental impact	●●

San Marino

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	–	66%	–	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	–	46%
A new government agency or body/unit	–	12%
An expert advisory council or board	–	17%
A new independent body or entity funded by government	–	7%
Multiple agencies or bodies/units with responsibility	–	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✗	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	–	22%
• patient associations	–	42%
• health-care providers	–	75%
• academia	–	67%
• industry leaders	–	64%
• governmental actors	–	81%
• regulators	–	56%
• professional associations	–	56%
• AI developers	–	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	–	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✗	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	✗	20%
As part of in-service training requirements (i.e. after deployment)	✗	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✗	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✓	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✗	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✗	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✗	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✗	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✗	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✗	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✗	28%
Post-market monitoring and surveillance of AI products	✗	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✗	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✗	66%	–	–
National health data governance framework	✗	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✓	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✓	30%
Genomic data	✗	15%
Primary care data	✓	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✓	76%
Diabetes registry data	✓	58%
Specific disease data	✓	73%
Paediatric critical care data	✓	52%
Prescriptions data	✓	85%
Mortality data	✓	85%
Emergency health-care data	✓	76%
EHR data	✓	79%
Synthetic data	✓	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✗	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✓	50%
With rules for health data sharing with private companies for public-interest research	✗	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✗	40%	–
Conversational platforms ("chatbots") for patient assistance	✗	50%	–
AI-assisted surgery/medical robotics to optimize surgical skills	✓	38%	Established
AI-assisted diagnostics	✗	64%	–
AI-assisted prognosis prediction (risk stratification)	✗	36%	–
AI-assisted symptom checkers and support in treatment decisions	✗	38%	–
AI-assisted remote patient monitoring	✗	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●●
Improving patient care and health outcomes	●●●
Reducing pressure on the health-care workforce	●●
Increasing health system efficiencies	●●●
Advancing health research and accelerating drug discovery	●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●
Legal uncertainty	●●●●
AI product approval processes	●●●
Infrastructure	●●●●
Data quality and standards	●●●●
Financial affordability	●●●●
Evidence	●●●
Capacity	●●●●
Job displacements	●●
Trust	●●●●
Cultural impact	●●●●
Environmental impact	●●●●

Serbia

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✓	66%	2019	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✓	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✓	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✗	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✗	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✓	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✗	42%
• health-care providers	✓	75%
• academia	✓	67%
• industry leaders	✓	64%
• governmental actors	✓	81%
• regulators	✗	56%
• professional associations	✓	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✗	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	✗	20%
As part of in-service training requirements (i.e. after deployment)	✗	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	–	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✓	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✓	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	–	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✓	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✓	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✗	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✓	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	–	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	–	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	–	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	–	28%
Post-market monitoring and surveillance of AI products	–	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	–	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2023	–
National health data governance framework	✗	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✗	66%
Standard requirements for the creation of health data warehouses	✗	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	–	30%
Genomic data	–	15%
Primary care data	–	79%
Hospital inpatient data	–	97%
Administrative data	–	88%
Cancer registry data	–	76%
Diabetes registry data	–	58%
Specific disease data	–	73%
Paediatric critical care data	–	52%
Prescriptions data	–	85%
Mortality data	–	85%
Emergency health-care data	–	76%
EHR data	–	79%
Synthetic data	–	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✗	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✗	50%
With rules for health data sharing with private companies for public-interest research	✗	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✗	40%	–
Conversational platforms ("chatbots") for patient assistance	✗	50%	–
AI-assisted surgery/medical robotics to optimize surgical skills	✓	38%	Pilot
AI-assisted diagnostics	✓	64%	Pilot
AI-assisted prognosis prediction (risk stratification)	✗	36%	–
AI-assisted symptom checkers and support in treatment decisions	✗	38%	–
AI-assisted remote patient monitoring	✗	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●
Increasing health system efficiencies	●●
Advancing health research and accelerating drug discovery	●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●●
Legal uncertainty	●●●
AI product approval processes	●●●●
Infrastructure	●●
Data quality and standards	●●●
Financial affordability	●●●●
Evidence	●●●
Capacity	●●●
Job displacements	●●
Trust	●●
Cultural impact	●●
Environmental impact	●●

Slovakia

Legend

Country response

✓	Yes	✗	No	!	Under development	–	Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

●●●●	Major relevance
●●●	Moderate relevance
●●	Minor relevance
●	No relevance

Importance

●●●●	Major importance
●●●	Moderate importance
●●	Minor importance
●	No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✓	8%	2021	~
Cross-sector AI strategy	✓	66%	2019	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✓	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✓	7%
Multiple agencies or bodies/units with responsibility	✗	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✗	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✓	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✓	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✗	42%
• health-care providers	✓	75%
• academia	✗	67%
• industry leaders	✗	64%
• governmental actors	✓	81%
• regulators	✓	56%
• professional associations	✓	56%
• AI developers	✗	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	–	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✗	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	✗	20%
As part of in-service training requirements (i.e. after deployment)	✗	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✗	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✓	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✗	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✗	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✗	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	–	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✗	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✗	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✗	28%
Post-market monitoring and surveillance of AI products	✗	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	–	20%

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✗	66%	–	–
National health data governance framework	✓	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✗	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✗	30%
Genomic data	✗	15%
Primary care data	✓	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✓	76%
Diabetes registry data	✓	58%
Specific disease data	✓	73%
Paediatric critical care data	✗	52%
Prescriptions data	✓	85%
Mortality data	✓	85%
Emergency health-care data	✓	76%
EHR data	✓	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✗	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✓	50%
With rules for health data sharing with private companies for public-interest research	✗	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	–	40%	–
Conversational platforms ("chatbots") for patient assistance	–	50%	–
AI-assisted surgery/medical robotics to optimize surgical skills	–	38%	–
AI-assisted diagnostics	✗	64%	–
AI-assisted prognosis prediction (risk stratification)	✗	36%	–
AI-assisted symptom checkers and support in treatment decisions	✓	38%	Pilot
AI-assisted remote patient monitoring	✗	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●●
Improving patient care and health outcomes	●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●
Legal uncertainty	●●●●
AI product approval processes	●●●
Infrastructure	●●
Data quality and standards	●●
Financial affordability	●●●
Evidence	●●
Capacity	●●●
Job displacements	●●●
Trust	●●●
Cultural impact	●●●
Environmental impact	●●

Slovenia

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✓	66%	2025	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✗	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✗	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✗	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✓	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✗	42%
• health-care providers	✓	75%
• academia	✗	67%
• industry leaders	✓	64%
• governmental actors	✗	81%
• regulators	✗	56%
• professional associations	✗	56%
• AI developers	✗	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	–	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	–	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	–	20%
As part of in-service training requirements (i.e. after deployment)	–	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	–	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✓	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✓	22%
Adopted a risk-based approach	–	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✗	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	–	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	–	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✗	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✗	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	–	28%
Post-market monitoring and surveillance of AI products	✗	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✓	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2022	–
National health data governance framework	!	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✓	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✗	30%
Genomic data	✗	15%
Primary care data	✗	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✓	76%
Diabetes registry data	✗	58%
Specific disease data	✗	73%
Paediatric critical care data	✗	52%
Prescriptions data	✓	85%
Mortality data	✗	85%
Emergency health-care data	✗	76%
EHR data	✓	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✗	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	–	50%
With rules for health data sharing with private companies for public-interest research	–	40%
With rules for cross-border sharing of health data for research	–	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	⊗	40%	–
Conversational platforms ("chatbots") for patient assistance	⊗	50%	–
AI-assisted surgery/medical robotics to optimize surgical skills	–	38%	–
AI-assisted diagnostics	–	64%	–
AI-assisted prognosis prediction (risk stratification)	–	36%	–
AI-assisted symptom checkers and support in treatment decisions	–	38%	–
AI-assisted remote patient monitoring	–	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●
Improving patient care and health outcomes	●●●
Reducing pressure on the health-care workforce	●●●
Increasing health system efficiencies	●●●
Advancing health research and accelerating drug discovery	●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●
Legal uncertainty	●●●
AI product approval processes	●●●
Infrastructure	●●
Data quality and standards	●●●
Financial affordability	●●●
Evidence	●●
Capacity	●●
Job displacements	●
Trust	●●●
Cultural impact	●●●
Environmental impact	●

Spain

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	!	8%	–	~
Cross-sector AI strategy	✓	66%	2024	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✗	46%
A new government agency or body/unit	✓	12%
An expert advisory council or board	✓	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✓	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	!	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✓	26%
Through expert and focus groups	✓	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✗	42%
• health-care providers	✓	75%
• academia	✓	67%
• industry leaders	✓	64%
• governmental actors	✓	81%
• regulators	✓	56%
• professional associations	✓	56%
• AI developers	✗	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	–	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	–	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	!	20%
As part of in-service training requirements (i.e. after deployment)	✓	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	–	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✓	34%
Development of focused sector-specific mandatory new laws and rules on AI	✓	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✓	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	!	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✓	14%
Specific practical guidance on algorithmic impact assessment	✓	10%
Specific practical guidance on data protection impact assessment	✓	20%
Specific practical guidance on AI and fundamental rights impact assessment	✓	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✓	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✔	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✔	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✔	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✔	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✔	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✔	28%
Post-market monitoring and surveillance of AI products	✔	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✔	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✔	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✔	10%
Policies and processes for the certification of AI systems in health care	✔	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	–	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2021	–
National health data governance framework	✓	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✓	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✗	30%
Genomic data	✗	15%
Primary care data	✓	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✗	76%
Diabetes registry data	✗	58%
Specific disease data	✗	73%
Paediatric critical care data	✗	52%
Prescriptions data	✗	85%
Mortality data	✗	85%
Emergency health-care data	✗	76%
EHR data	✗	79%
Synthetic data	✓	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✓	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✓	50%
With rules for health data sharing with private companies for public-interest research	–	40%
With rules for cross-border sharing of health data for research	✓	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✔	40%	Established
Conversational platforms ("chatbots") for patient assistance	✔	50%	Established
AI-assisted surgery/medical robotics to optimize surgical skills	✔	38%	Established
AI-assisted diagnostics	✔	64%	Pilot
AI-assisted prognosis prediction (risk stratification)	✔	36%	Pilot
AI-assisted symptom checkers and support in treatment decisions	✔	38%	Pilot
AI-assisted remote patient monitoring	✔	32%	Pilot

Opportunities driving development

	Country response
Reducing health inequalities	●●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●
Legal uncertainty	●●●●
AI product approval processes	●●●
Infrastructure	●●●
Data quality and standards	●●●
Financial affordability	●●●
Evidence	●●●●
Capacity	●●●●
Job displacements	●●●
Trust	●●●●
Cultural impact	●●●●
Environmental impact	●●●

Sweden

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✓	8%	2023	~
Cross-sector AI strategy	✓	66%	2018	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✓	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✓	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✗	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✓	44%
Through surveys and interviews	✓	26%
Through expert and focus groups	✓	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✓	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✗	42%
• health-care providers	✗	75%
• academia	✗	67%
• industry leaders	✗	64%
• governmental actors	✓	81%
• regulators	✗	56%
• professional associations	✗	56%
• AI developers	✗	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✗	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	✗	20%
As part of in-service training requirements (i.e. after deployment)	✗	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✗	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✓	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✓	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✓	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✓	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✗	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✓	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✓	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✓	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✓	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✓	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✓	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✓	28%
Post-market monitoring and surveillance of AI products	✓	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✓	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✓	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✗	20%

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2016	–
National health data governance framework	✓	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	!	66%
Standard requirements for the creation of health data warehouses	✗	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	–	30%
Genomic data	–	15%
Primary care data	–	79%
Hospital inpatient data	–	97%
Administrative data	–	88%
Cancer registry data	–	76%
Diabetes registry data	–	58%
Specific disease data	–	73%
Paediatric critical care data	–	52%
Prescriptions data	–	85%
Mortality data	–	85%
Emergency health-care data	–	76%
EHR data	–	79%
Synthetic data	–	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✓	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✗	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✓	50%
With rules for health data sharing with private companies for public-interest research	✓	40%
With rules for cross-border sharing of health data for research	✓	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✔	40%	Pilot
Conversational platforms ("chatbots") for patient assistance	✔	50%	Pilot
AI-assisted surgery/medical robotics to optimize surgical skills	–	38%	–
AI-assisted diagnostics	✔	64%	Established
AI-assisted prognosis prediction (risk stratification)	✔	36%	Pilot
AI-assisted symptom checkers and support in treatment decisions	✔	38%	Established
AI-assisted remote patient monitoring	–	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●●
Legal uncertainty	●●●●
AI product approval processes	●●●●
Infrastructure	●●●●
Data quality and standards	●●●●
Financial affordability	●●●●
Evidence	●●●●
Capacity	●●●●
Job displacements	●●
Trust	●●●
Cultural impact	●●●
Environmental impact	●●●

Switzerland

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✓	66%	2020	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✓	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✗	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	–	8%

Engaging stakeholders and building workforce capacity

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	–	22%
• patient associations	–	42%
• health-care providers	–	75%
• academia	–	67%
• industry leaders	–	64%
• governmental actors	–	81%
• regulators	–	56%
• professional associations	–	56%
• AI developers	–	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✗	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	–	20%
As part of in-service training requirements (i.e. after deployment)	–	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	–	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	–	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	–	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	–	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	–	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	–	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	–	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	–	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	–	28%
Post-market monitoring and surveillance of AI products	–	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	–	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2007	2018
National health data governance framework	!	50%	~	~
Health data authority	✗	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✗	66%
Standard requirements for the creation of health data warehouses	✓	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	–	30%
Genomic data	–	15%
Primary care data	–	79%
Hospital inpatient data	–	97%
Administrative data	–	88%
Cancer registry data	–	76%
Diabetes registry data	–	58%
Specific disease data	–	73%
Paediatric critical care data	–	52%
Prescriptions data	–	85%
Mortality data	–	85%
Emergency health-care data	–	76%
EHR data	–	79%
Synthetic data	–	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✗	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✗	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✗	50%
With rules for health data sharing with private companies for public-interest research	✗	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

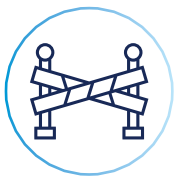
Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	–	40%	–
Conversational platforms ("chatbots") for patient assistance	–	50%	–
AI-assisted surgery/medical robotics to optimize surgical skills	–	38%	–
AI-assisted diagnostics	⊗	64%	–
AI-assisted prognosis prediction (risk stratification)	–	36%	–
AI-assisted symptom checkers and support in treatment decisions	–	38%	–
AI-assisted remote patient monitoring	–	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●
Improving patient care and health outcomes	●
Reducing pressure on the health-care workforce	●
Increasing health system efficiencies	●
Advancing health research and accelerating drug discovery	●

Barriers to AI uptake in health care



Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●
Legal uncertainty	●
AI product approval processes	●
Infrastructure	●
Data quality and standards	●
Financial affordability	●
Evidence	●
Capacity	●
Job displacements	●
Trust	●
Cultural impact	●
Environmental impact	●

Tajikistan

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	!	66%	–	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✗	46%
A new government agency or body/unit	✓	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✗	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	!	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✓	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✗	42%
• health-care providers	✓	75%
• academia	✓	67%
• industry leaders	✗	64%
• governmental actors	✓	81%
• regulators	✓	56%
• professional associations	✗	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✗	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	–	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	!	20%
As part of in-service training requirements (i.e. after deployment)	!	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✓	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✓	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✓	22%
Amendment of existing laws and policies	✓	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✓	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	–	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	!	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✓	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✓	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✓	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✓	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✓	28%
Post-market monitoring and surveillance of AI products	–	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✓	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2020	–
National health data governance framework	✓	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✓	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✗	30%
Genomic data	✗	15%
Primary care data	✓	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✓	76%
Diabetes registry data	✓	58%
Specific disease data	✓	73%
Paediatric critical care data	✓	52%
Prescriptions data	✗	85%
Mortality data	✓	85%
Emergency health-care data	✓	76%
EHR data	✗	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	–	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✓	50%
With rules for health data sharing with private companies for public-interest research	✗	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✗	40%	–
Conversational platforms ("chatbots") for patient assistance	✗	50%	–
AI-assisted surgery/medical robotics to optimize surgical skills	✗	38%	–
AI-assisted diagnostics	✓	64%	Established
AI-assisted prognosis prediction (risk stratification)	✓	36%	Informal
AI-assisted symptom checkers and support in treatment decisions	✓	38%	Established
AI-assisted remote patient monitoring	✗	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●
Legal uncertainty	●●
AI product approval processes	●●
Infrastructure	●●●
Data quality and standards	●●
Financial affordability	●●●●
Evidence	●●●
Capacity	●●●●
Job displacements	●●●●
Trust	●●●●
Cultural impact	●●●●
Environmental impact	●●●

Türkiye

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✓	66%	2021	2024

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✓	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✗	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	!	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✓	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✓	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✗	42%
• health-care providers	✓	75%
• academia	✓	67%
• industry leaders	✗	64%
• governmental actors	✓	81%
• regulators	✗	56%
• professional associations	✗	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✗	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	✗	20%
As part of in-service training requirements (i.e. after deployment)	✗	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✓	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✓	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✓	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✓	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✓	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	!	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✓	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✓	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✓	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✓	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✓	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✓	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✓	28%
Post-market monitoring and surveillance of AI products	✗	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✓	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✓	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✓	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✓	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✗	66%	–	–
National health data governance framework	!	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	!	66%
Standard requirements for the creation of health data warehouses	✓	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	–	30%
Genomic data	–	15%
Primary care data	–	79%
Hospital inpatient data	–	97%
Administrative data	–	88%
Cancer registry data	–	76%
Diabetes registry data	–	58%
Specific disease data	–	73%
Paediatric critical care data	–	52%
Prescriptions data	–	85%
Mortality data	–	85%
Emergency health-care data	–	76%
EHR data	–	79%
Synthetic data	–	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✗	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✓	50%
With rules for health data sharing with private companies for public-interest research	✓	40%
With rules for cross-border sharing of health data for research	✓	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✗	40%	–
Conversational platforms ("chatbots") for patient assistance	✗	50%	–
AI-assisted surgery/medical robotics to optimize surgical skills	✗	38%	–
AI-assisted diagnostics	✓	64%	Pilot
AI-assisted prognosis prediction (risk stratification)	✓	36%	Pilot
AI-assisted symptom checkers and support in treatment decisions	✗	38%	–
AI-assisted remote patient monitoring	✗	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●●
Legal uncertainty	●●●●
AI product approval processes	●●
Infrastructure	●●
Data quality and standards	●●●
Financial affordability	●●
Evidence	●●●●
Capacity	●●●
Job displacements	●●
Trust	●●●●
Cultural impact	●●●
Environmental impact	●●●

Ukraine

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✓	66%	2021	2021

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✓	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✗	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✗	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✓	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✗	42%
• health-care providers	✓	75%
• academia	✗	67%
• industry leaders	✗	64%
• governmental actors	✓	81%
• regulators	✗	56%
• professional associations	✓	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✗	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✗	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	–	20%
As part of in-service training requirements (i.e. after deployment)	–	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✗	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✓	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✓	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✓	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✓	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	–	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✗	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✗	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	–	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✗	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✗	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✗	28%
Post-market monitoring and surveillance of AI products	✗	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✗	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✗	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	✗	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2020	2024
National health data governance framework	✓	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	✓	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✓	30%
Genomic data	✗	15%
Primary care data	✓	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✓	76%
Diabetes registry data	✓	58%
Specific disease data	✓	73%
Paediatric critical care data	✓	52%
Prescriptions data	✓	85%
Mortality data	✓	85%
Emergency health-care data	✓	76%
EHR data	✓	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✗	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✗	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✓	50%
With rules for health data sharing with private companies for public-interest research	✓	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	–	40%	–
Conversational platforms ("chatbots") for patient assistance	–	50%	–
AI-assisted surgery/medical robotics to optimize surgical skills	–	38%	–
AI-assisted diagnostics	✓	64%	Pilot
AI-assisted prognosis prediction (risk stratification)	–	36%	–
AI-assisted symptom checkers and support in treatment decisions	–	38%	–
AI-assisted remote patient monitoring	–	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●●
Improving patient care and health outcomes	●●●
Reducing pressure on the health-care workforce	●●
Increasing health system efficiencies	●●●
Advancing health research and accelerating drug discovery	●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●
Legal uncertainty	●●●●
AI product approval processes	●●●
Infrastructure	●●
Data quality and standards	●●●
Financial affordability	●●●
Evidence	●●●
Capacity	●●●●
Job displacements	●●●●
Trust	●●●
Cultural impact	●●
Environmental impact	●

United Kingdom (England)

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	✓	66%	2021	2022

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✓	46%
A new government agency or body/unit	✗	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✗	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	✗	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✓	44%
Through surveys and interviews	✓	26%
Through expert and focus groups	✓	46%
Through public hearings or online public consultations	✓	16%
Through targeted consultations of specific stakeholder groups	✓	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	✗	22%
• patient associations	✗	42%
• health-care providers	✗	75%
• academia	✓	67%
• industry leaders	✓	64%
• governmental actors	✓	81%
• regulators	✓	56%
• professional associations	✓	56%
• AI developers	✓	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	✓	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	✓	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	–	20%
As part of in-service training requirements (i.e. after deployment)	✓	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✓	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✓	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✓	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✗	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✗	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✓	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✓	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✗	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✔	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	✔	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	✔	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✔	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✔	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✔	28%
Post-market monitoring and surveillance of AI products	✔	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✔	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✔	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✔	10%
Policies and processes for the certification of AI systems in health care	✔	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	–	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✓	66%	2022	2022
National health data governance framework	✓	50%	~	~
Health data authority	✗	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	✓	66%
Standard requirements for the creation of health data warehouses	–	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	✗	30%
Genomic data	✓	15%
Primary care data	✓	79%
Hospital inpatient data	✓	97%
Administrative data	✓	88%
Cancer registry data	✗	76%
Diabetes registry data	✗	58%
Specific disease data	✗	73%
Paediatric critical care data	✗	52%
Prescriptions data	✓	85%
Mortality data	✓	85%
Emergency health-care data	✓	76%
EHR data	✓	79%
Synthetic data	✗	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	✓	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✓	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	–	50%
With rules for health data sharing with private companies for public-interest research	✓	40%
With rules for cross-border sharing of health data for research	–	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✔	40%	Informal
Conversational platforms ("chatbots") for patient assistance	✔	50%	Established
AI-assisted surgery/medical robotics to optimize surgical skills	✔	38%	Pilot
AI-assisted diagnostics	✔	64%	Informal
AI-assisted prognosis prediction (risk stratification)	✔	36%	Informal
AI-assisted symptom checkers and support in treatment decisions	✔	38%	Pilot
AI-assisted remote patient monitoring	✔	32%	Informal

Opportunities driving development

	Country response
Reducing health inequalities	●●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●●
Advancing health research and accelerating drug discovery	●●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●●
Legal uncertainty	●●
AI product approval processes	●●
Infrastructure	●●●●
Data quality and standards	●●●
Financial affordability	●●●
Evidence	●●
Capacity	●●●
Job displacements	●●
Trust	●●●
Cultural impact	●●
Environmental impact	●●●

Uzbekistan

Legend

Country response

Yes | No | Under development | – Indicates a question was unanswered or with the response "do not know" or "not applicable"

Relevance

- Major relevance
- Moderate relevance
- Minor relevance
- No relevance

Importance

- Major importance
- Moderate importance
- Minor importance
- No importance

Strategic and operational context

National AI strategy, policy, action plan or equivalent

	Country response	Regional "yes" response	Year adopted	Year revised
Health-specific AI strategy	✗	8%	–	~
Cross-sector AI strategy	!	66%	–	–

Way through which oversight and implementation of national AI initiatives in the health sector occurs

	Country response	Regional "yes" response
An existing government agency or body/unit	✓	46%
A new government agency or body/unit	✓	12%
An expert advisory council or board	✗	17%
A new independent body or entity funded by government	✗	7%
Multiple agencies or bodies/units with responsibility	✗	46%
Legislative measures or provisions for the governance and oversight of AI in the health sector	!	8%

Way through which stakeholder consultations occur

	Country response	Regional "yes" response
Informally, through workshops, meetings and seminars	✗	44%
Through surveys and interviews	✗	26%
Through expert and focus groups	✗	46%
Through public hearings or online public consultations	✗	16%
Through targeted consultations of specific stakeholder groups	✗	32%
Not specifically on AI-driven technologies in health	✗	20%
Of these the stakeholders involved were:		
• the broader public	–	22%
• patient associations	–	42%
• health-care providers	–	75%
• academia	–	67%
• industry leaders	–	64%
• governmental actors	–	81%
• regulators	–	56%
• professional associations	–	56%
• AI developers	–	75%

Private investment and cross-border partnerships for AI research in health systems

	Country response	Regional "yes" response
Private sector participates and invests in research on AI for health-care and therapeutic development	–	64%
Government set up programmes for cross-border partnerships and research collaborations on AI for health-care and therapeutic development	–	20%

Educational or training opportunities for health and related professionals to develop a solid AI skills base

	Country response	Regional "yes" response
As part of pre-service training requirements	✓	20%
As part of in-service training requirements (i.e. after deployment)	✓	24%
Country creating new professional roles and career opportunities for people with in-depth knowledge of data science and AI in the health sector	✓	42%

Approaches to develop legislative measures or other provisions to govern the development, deployment and use of AI systems

	Country response	Regional "yes" response
Assessment of the gaps in existing laws and policies	✗	46%
Development of comprehensive (cross-sector/ sector agnostic) guidance on the application of existing laws and policies	✗	22%
Amendment of existing laws and policies	✗	24%
Amendment of existing laws and policies according to upcoming EU legislation	✗	34%
Development of comprehensive (cross-sector/ sector agnostic) mandatory new laws and rules on AI	✓	34%
Development of focused sector-specific mandatory new laws and rules on AI	✗	20%
Development of focused sector-specific guidance and soft law (e.g. ethical principles) on AI	✗	36%
Development of voluntary codes of practice and standard procedures devised by companies, industry associations and standard-setting bodies	✗	22%
Adopted a risk-based approach	✗	40%

Ethical guidelines and risk assessment

	Country response	Regional "yes" response
Guidelines to address the ethical implications arising from the development and use of AI in the health sector or across sectors	✗	28%
Ethics checklists or toolkits to guide responsible development and deployment of AI systems in the health sector	✓	14%
Specific practical guidance on algorithmic impact assessment	✗	10%
Specific practical guidance on data protection impact assessment	✓	20%
Specific practical guidance on AI and fundamental rights impact assessment	✗	10%

Legal liability standards for AI systems

	Country response	Regional "yes" response
Issued guidance for manufacturers and users on the application of existing liability regimes to AI for health	✗	6%
Established a new liability regime for manufacturers and users tailored to AI for health	✗	2%
Established a new liability regime for manufacturers and users tailored to AI but not specific to health	✗	4%

Regulatory agencies responsible for approval and adoption AI systems

	Country response	Regional "yes" response
One or more regulatory agency or entity responsible for assessing and approving AI systems for use in health care	✓	54%
Existing knowledge sharing approaches to enable regulators to learn from each other and increase their capacities	–	50%

Minimum standard requirements for governance and oversight of AI for health care

	Country response	Regional "yes" response
Effective and transparent documentation and record-keeping across all AI product lifecycle phases	–	34%
Data accountability practices – ensuring data used are lawfully collected, used and disclosed, considering privacy, mitigation of bias and other risks to data to ensure data safety, quality and integrity	✗	46%
Clear scientific explanations, and graded sets of requirements for analytical and clinical validation of the AI product intended for use	✗	26%
Adoption of a holistic risk management approach that addresses risks including those associated with cybersecurity threats and the AI system's vulnerabilities throughout the total AI product lifecycle phases	✗	28%
Post-market monitoring and surveillance of AI products	✗	24%

Policy and processes for governing AI

	Country response	Regional "yes" response
Policies and processes for procuring, developing or using AI systems in health care	✓	26%
Policies and processes for auditing, identifying and documenting the possible impacts of AI system in health care	✗	16%
Policies and processes for individuals or collectives adversely affected by an AI system to bring complaints before national authorities	✗	10%
Policies and processes for the certification of AI systems in health care	✓	20%
Require developers to address concerns about the impact on the environment (e.g. carbon and water footprints) of AI systems	–	20%

Health data governance

National health data strategies and governance frameworks

	Country response	Regional "yes" response	Year adopted	Year revised
National health data strategy, policy or equivalent	✗	66%	–	–
National health data governance framework	–	50%	~	~
Health data authority	✓	68%	~	~

The emergence of health data hubs

	Country response	Regional "yes" response
Health data hub	!	66%
Standard requirements for the creation of health data warehouses	✓	52%

Most common type of data source

	Country response	Regional "yes" response
Claims data	–	30%
Genomic data	–	15%
Primary care data	–	79%
Hospital inpatient data	–	97%
Administrative data	–	88%
Cancer registry data	–	76%
Diabetes registry data	–	58%
Specific disease data	–	73%
Paediatric critical care data	–	52%
Prescriptions data	–	85%
Mortality data	–	85%
Emergency health-care data	–	76%
EHR data	–	79%
Synthetic data	–	82%

Secondary use of health data for public interest health-related research

	Country response	Regional "yes" response
Issued guidance on the secondary use of health data for research	–	30%
Has policies permitting public authorities to extract data from EHRs for the creation of registries and databases	✗	62%
Data is extracted routinely from EHR systems, imported and merged into regional/local or national registries	✗	50%
With rules for health data sharing with private companies for public-interest research	✗	40%
With rules for cross-border sharing of health data for research	✗	30%

Applications and opportunities of using AI for health

Common applications and uses of AI in health care

	Country response	Regional "yes" response	Maturity of application
Automating logistics, clerical and administrative tasks	✗	40%	–
Conversational platforms ("chatbots") for patient assistance	✓	50%	Informal
AI-assisted surgery/medical robotics to optimize surgical skills	✓	38%	Pilot
AI-assisted diagnostics	✗	64%	–
AI-assisted prognosis prediction (risk stratification)	✗	36%	–
AI-assisted symptom checkers and support in treatment decisions	✗	38%	–
AI-assisted remote patient monitoring	✗	32%	–

Opportunities driving development

	Country response
Reducing health inequalities	●●●
Improving patient care and health outcomes	●●●●
Reducing pressure on the health-care workforce	●●●●
Increasing health system efficiencies	●●●
Advancing health research and accelerating drug discovery	●●●

Barriers to AI uptake in health care

Barriers impeding widespread adoption of AI in the health sector by importance

	Country response
Strategy	●●
Legal uncertainty	●●●●
AI product approval processes	●●
Infrastructure	●
Data quality and standards	●●●●
Financial affordability	●
Evidence	●●
Capacity	●●
Job displacements	●
Trust	●●
Cultural impact	●●●●
Environmental impact	●

The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

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