

THE ECOSYSTEM OF EVIDENCE

Navigating the future
of the ecosystem of evidence

Artificial intelligence and digital transformation
in research and healthcare

11th EBHC International Conference
Taormina, 21st – 24th October 2026

#EBHC2026

30th 1996-2026 GIMBE EVIDENCE FOR HEALTH

International Society for Evidence-Based Health Care

World Health Organization

From evidence to action: leveraging AI in health policy

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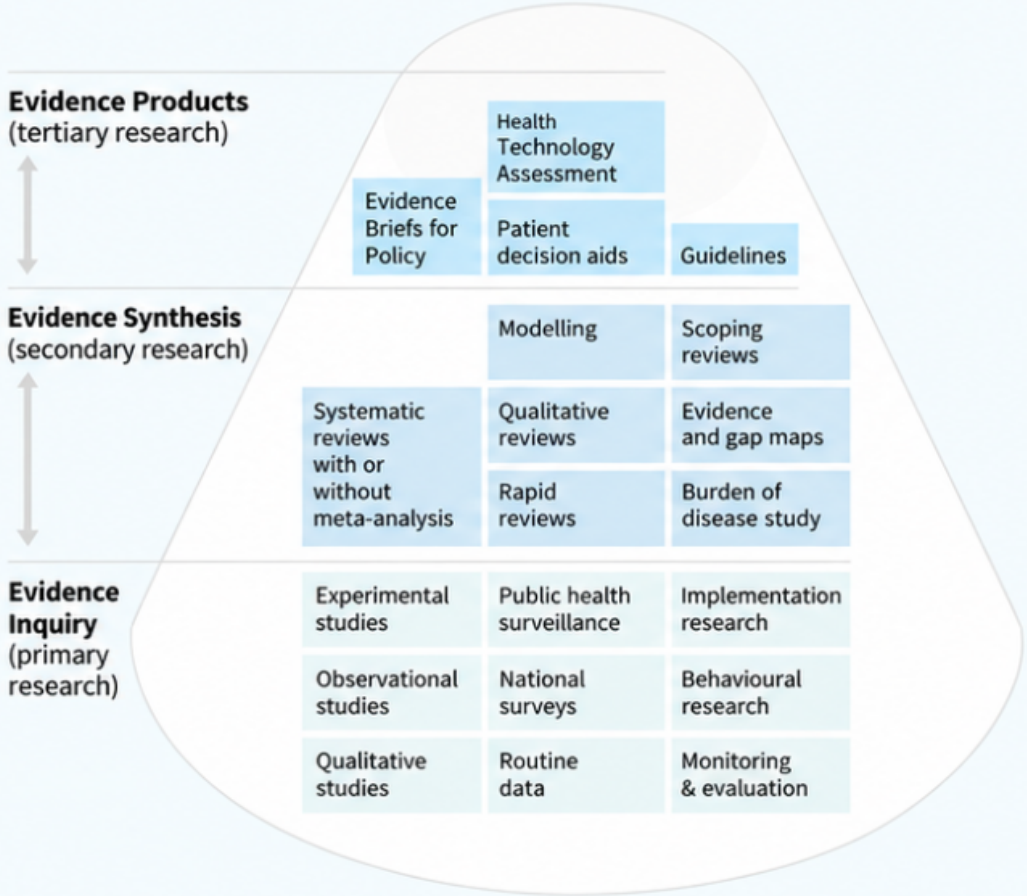
Unit Head Research and Ethics Ecosystem Strengthening (REE), Department of Science for Health (RFH),
World Health Organization (WHO)

This presentation was co-developed in collaboration with Andreas Reis, Senior Ethics Consultant, and Rohit Malpani, Consultant on AI and Ethics for health, REE/SFH/WHO

Evidence-informed decision-making connects evidence to action and impact

Different types of evidence

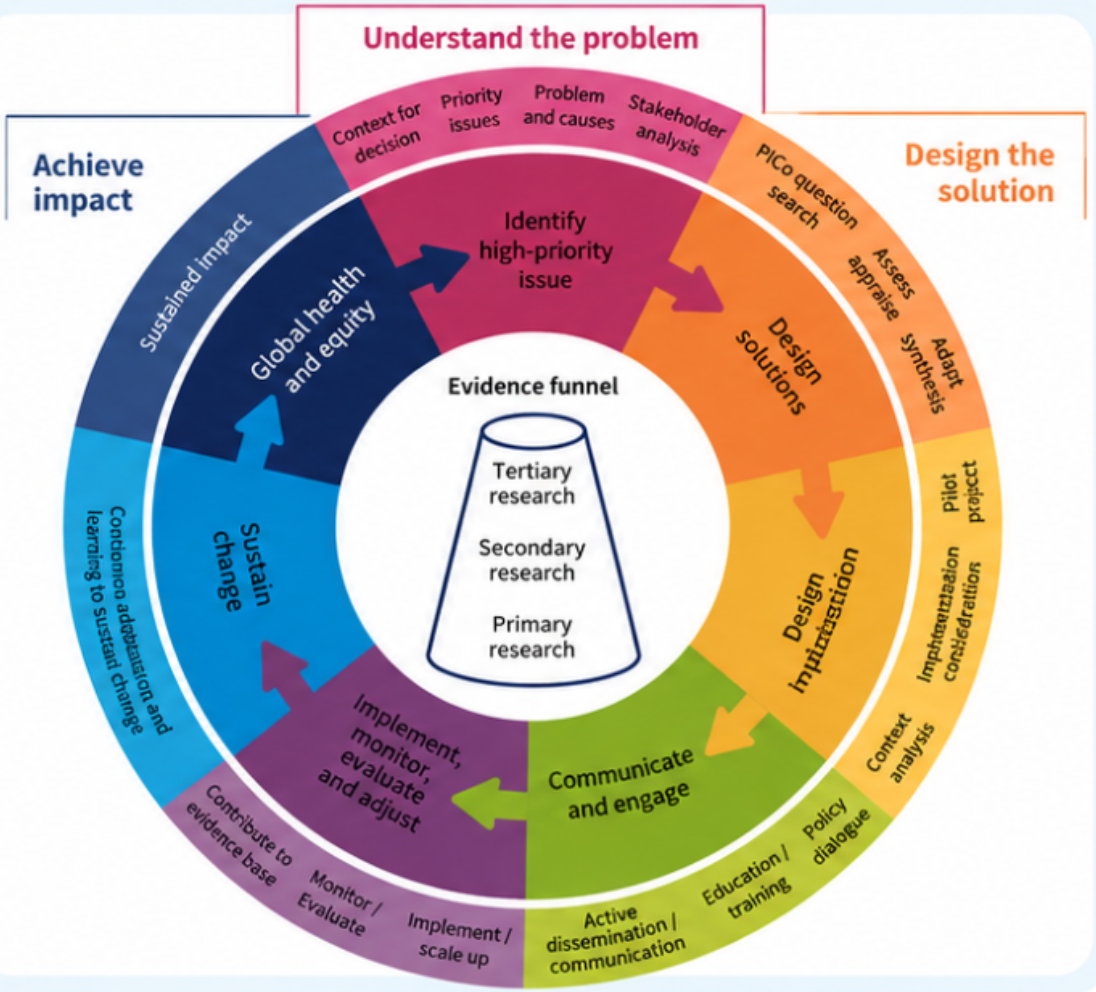
from primary research to evidence products



Inform decisions throughout the policy cycle

Evidence throughout the decision-making cycle

to design, implement and adapt solutions and achieve impact

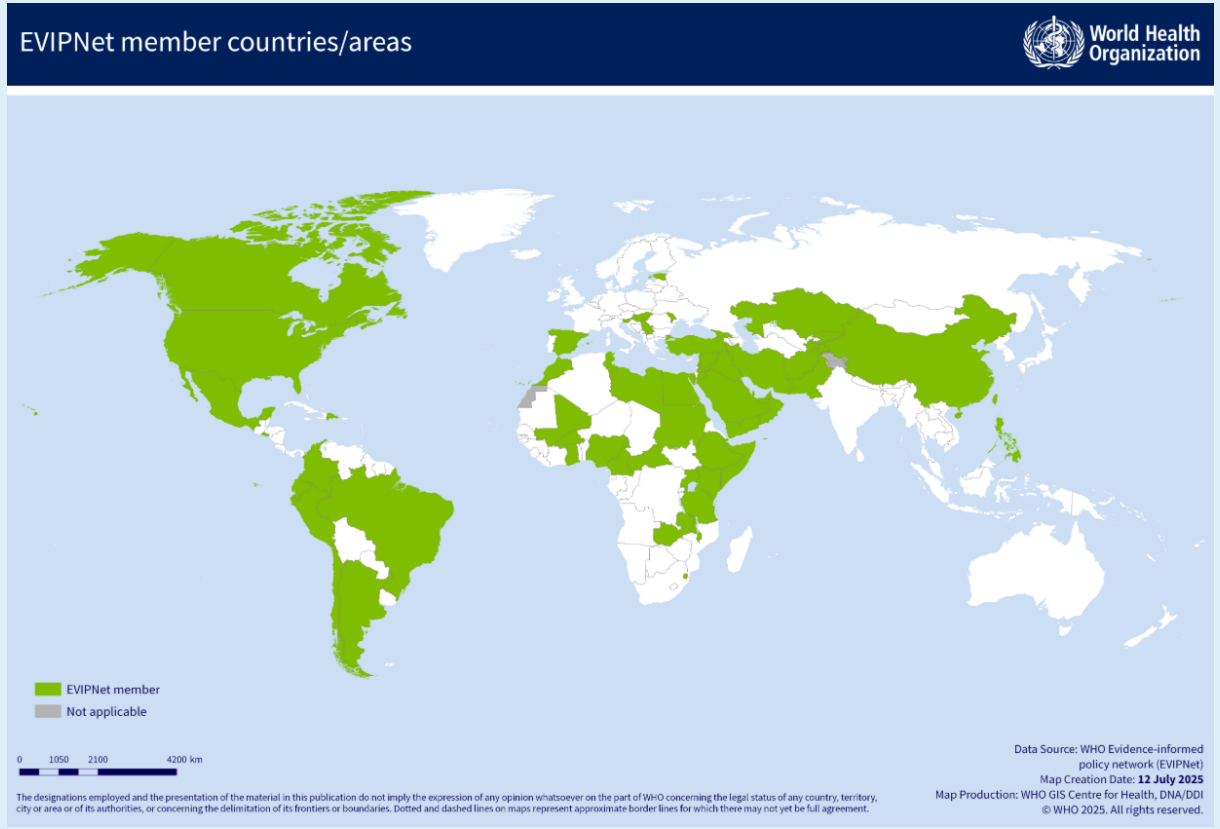


EIDM brings diverse evidence into decision-making to design, implement and sustain effective solutions

Resource: https://apps.who.int/iris/bitstream/handle/10665/350994/9789240039872-eng.pdf

Evidence-informed Policy Network (EVIPNet) at a glance

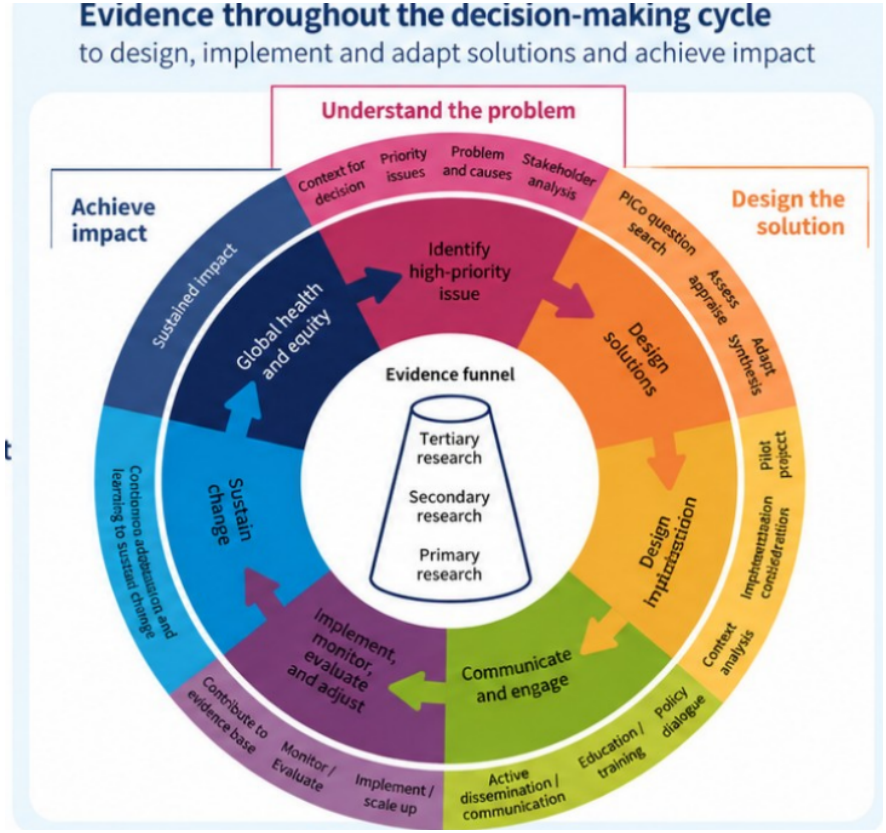
- Global WHO initiative
- Promotes approaches and methods for knowledge translation
- Supports evidence-to-action in over 50 countries
- Offers tools, capacity strengthening and networking opportunities for countries to strengthen the use of evidence in health policies



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Where can AI add value across the evidence-to-action cycle?

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Understand the problem

Data integration • pattern detection & prediction
Surveillance • situational awareness

Design the solutions

Evidence synthesis • scenario modelling
Policy-option analysis • resource optimization

Achieve Impact

Implementation monitoring • real-time feedback
Public sentiment analysis • adaptive policy adjustment



AI can potentially support every stage - but its maturity, reliability and risks vary by task, and human judgement remains essential

Table 1. Examples of opportunities, risks, governance insights and practical responses across the policy cycle

Policy phase	AI opportunities (Section 4)	Key risks (Section 5)	Governance insights (Section 6)	Practical responses (Section 7)
Cross-cutting (applies to all phases)	⇨ More comprehensive data integration ⇨ Research synthesis ⇨ Scenario modelling ⇨ Adaptive feedback across the cycle ⇨ Accelerate movement through policy cycle	⇨ Opacity and accountability ⇨ Power concentration and equity ⇨ Regulatory gaps ⇨ Erosion of human expertise ⇨ Bias and discrimination ⇨ Epistemic injustice and knowledge exclusion ⇨ Resource intensity	⇨ Transparent and auditable decision-making ⇨ Participatory engagement ⇨ Data governance and quality (FAIR principles) ⇨ Rights and accountability frameworks ⇨ Evidence standards and reporting ⇨ Risk-based regulation and life cycle oversight	⇨ Prioritize augmentation over automation ⇨ Human-in-the-loop governance ⇨ Combine AI with collective intelligence ⇨ Navigate evolving concepts of evidence ⇨ Link AI research to policy applications
Understanding the problem	⇨ Pattern detection and prediction ⇨ Enhanced situational awareness	⇨ Data bias and misrepresentation ⇨ Reinforcement of historical bias ⇨ Oversimplification of complex issues ⇨ Mis/disinformation	*See cross-cutting principles above*	⇨ Living evidence workflows ⇨ Multidisciplinary oversight ⇨ Context-specific question framing ⇨ Blend AI outputs with expert judgement
Designing the solution	⇨ Idea generation and option surfacing ⇨ Resource allocation optimization ⇨ Operational efficiency improvements	⇨ Over-optimization of measurable objectives ⇨ Algorithmic narrowness ⇨ Legitimacy risks ⇨ Ethical blind spots ⇨ Innovation constraints ⇨ Stakeholder exclusion	*See cross-cutting principles above*	⇨ Pilot projects and structured appraisals ⇨ Technology readiness assessments ⇨ Algorithmic impact assessments ⇨ Map tasks to comparative advantage
Achieving impact (Including implementation, monitoring & adjustment)	⇨ Adaptive policies and real-time feedback ⇨ Implementation dashboards ⇨ Public sentiment analysis ⇨ Iterative evidence-based decision-making ⇨ Learning from policy failures	⇨ Incentive distortions and system gaming ⇨ Cybersecurity threats to programme delivery ⇨ Adaptability challenges in novel contexts ⇨ Overemphasis on quantitative metrics ⇨ Causality and attribution gaps ⇨ Feedback loop risks ⇨ Privacy violations ⇨ Resistance to change and path dependency ⇨ Policy drift and inflexibility	*See cross-cutting principles above*	⇨ Bias-testing and auditing ⇨ Post-deployment audits ⇨ Real-time analytics for adjustments ⇨ Flexible governance and adaptive protocols ⇨ Systematic risk-mapping

Note: This table presents selected examples that are relevant to each phase. Cross-cutting risks affect all policy phases (Section 5.1), and governance insights and practical responses build on foundational principles that apply across the cycle. Several opportunities and responses may be relevant to multiple phases. For a comprehensive discussion, see sections 4–7.

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AI can support decisions - but decisions require judgement

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AI-generated findings should inform deliberation - not substitute for it. Augmentation, not automation.

AI CAN STRENGTHEN THE INPUTS

- Data integration & evidence synthesis
- Pattern detection
- Predictive modelling & scenario simulation
- Adaptive feedback

PROVISIONAL INPUTS

HUMAN DELIBERATION

Humans retain responsibility for:

- Framing the question
- Judging evidence quality
- Interpreting results in context
- Weighing ethical considerations
- Normative judgement & stakeholder engagement

POLICY DECISION

Human accountability remains essential

AI creates ethical challenges across the E2P pathway

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- When should AI be used?
- AI and the digital divide
- Data collection and use
- Accountability and responsibility for use of AI
- Autonomous decision making and overall control of AI systems
- Hallucination

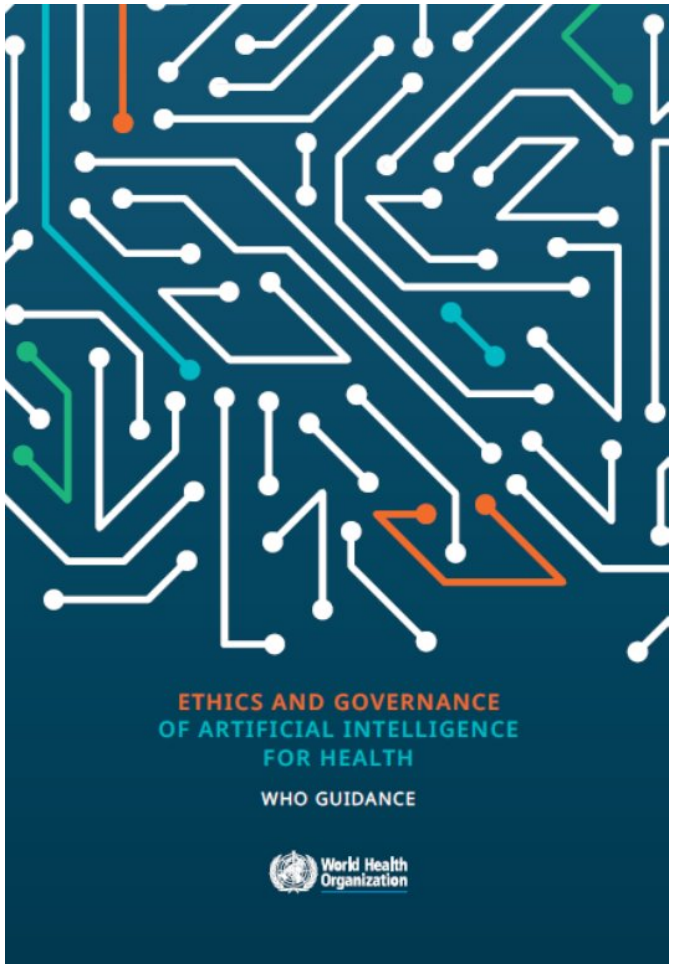
- Bias and discrimination associated with AI
- Risks of AI to safety and cybersecurity
- Artificial intelligence and its environmental impacts (climate and water footprint)
- Impacts of AI on labour and employment in healthcare and medicine
- Challenges in commercialisation of AI for healthcare
- Emotional attachment and manipulation

WHO Expert Group on Ethics & Governance of AI for Health

- Batoul Baz (Saudi Arabia)
- Arisa Ema (Japan)
- Amel Ghoulia (Tunisia & United States)
- Jay Shaw (Canada)
- Joe Ali (USA)
- Emmanuel Dider (France)
- Keymanthri Moodley, Co-Chair (South Africa)
- Tze Yun Leong (Singapore)
- Ping Zhou (China)
- Faryal Khamis (Oman)
- Rodrigo Lins (Brazil)
- Partha Majumder, Co-Chair (India)
- Sharon Kaur (Malaysia)
- Roli Mathur (India)
- Timo Minssen (Denmark)
- Meg Davis (United Kingdom)
- Maria Paz Canales (Chile)
- Jerome Singh (South Africa)
- Effy Vayena, Switzerlan
- Robyn Whittaker (New Zealand)
- Jeroen van den Hoven, Co-Chair (The Netherlands)

Core Guidance for Ethics & Governance of AI for Health

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Ethical foundation: WHO's six consensus principles

1. Protect autonomy
2. Promote human well-being, human safety and the public interest
3. Ensure transparency, explainability and intelligibility
4. Foster responsibility and accountability
5. Ensure inclusiveness and equity
6. Promote AI that is responsive and sustainable

Governance of generative AI models

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Development

Developers

- Large technology companies
- Small technology companies
- Universities
- Scientific collaborations
- Public-private consortiums
- National health systems

Develop LMMs

- General-purpose foundation models (large multi-modal models)
- Health or medical domain specific foundational models
- Health system specific foundational models

Provision

Providers

- Companies
- Not-for-profit entities
- Academic institutions
- Health providers
- Developers (vertically integrated)

Adapt/integrate LMMs

- Fine tuning
- Integrate into software systems
- Organize into a regulated or verified format (e.g. with plug-ins)

Deployment

Deployers

- Ministries of Health
- Pharmaceutical companies
- Health systems
- Hospitals
- Individual providers
- Developers (vertically integrated)
- Providers (vertically integrated)

Use LMMs

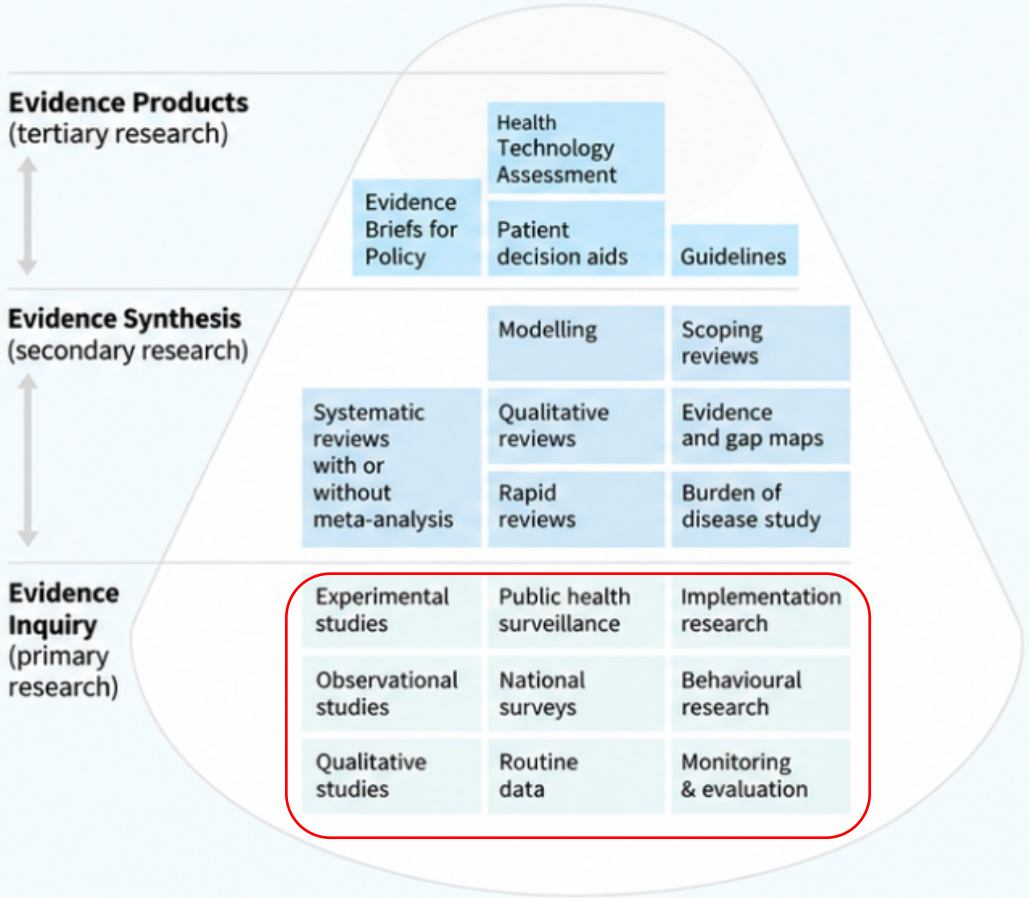
- Diagnosis and clinical care
- Patient centered care
- Clerical and administrative tasks
- Medical and nursing education
- Scientific research
- Drug development

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Returning to the evidence funnel: Primary research

Different types of evidence

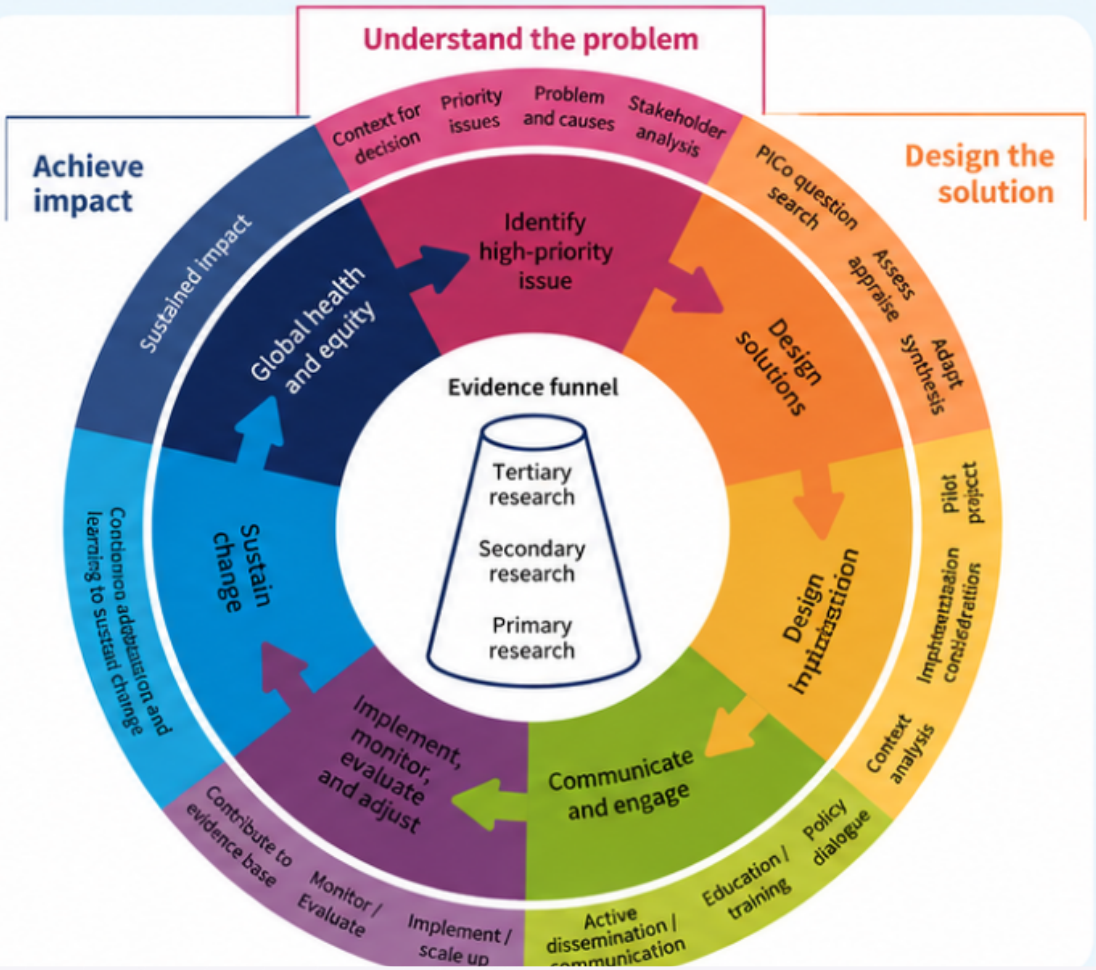
from primary research to evidence products



Inform decisions throughout the policy cycle

Evidence throughout the decision-making cycle

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Equity must be designed into AI-related health research

- Fairness and inclusivity
- Health data colonialism
- Ethics dumping
- Benefit sharing and equitable access
- How to set standards that address concerns with exploitative practices without undermining research led by LMIC researchers?



AI is changing health research – Why existing research oversight is under pressure

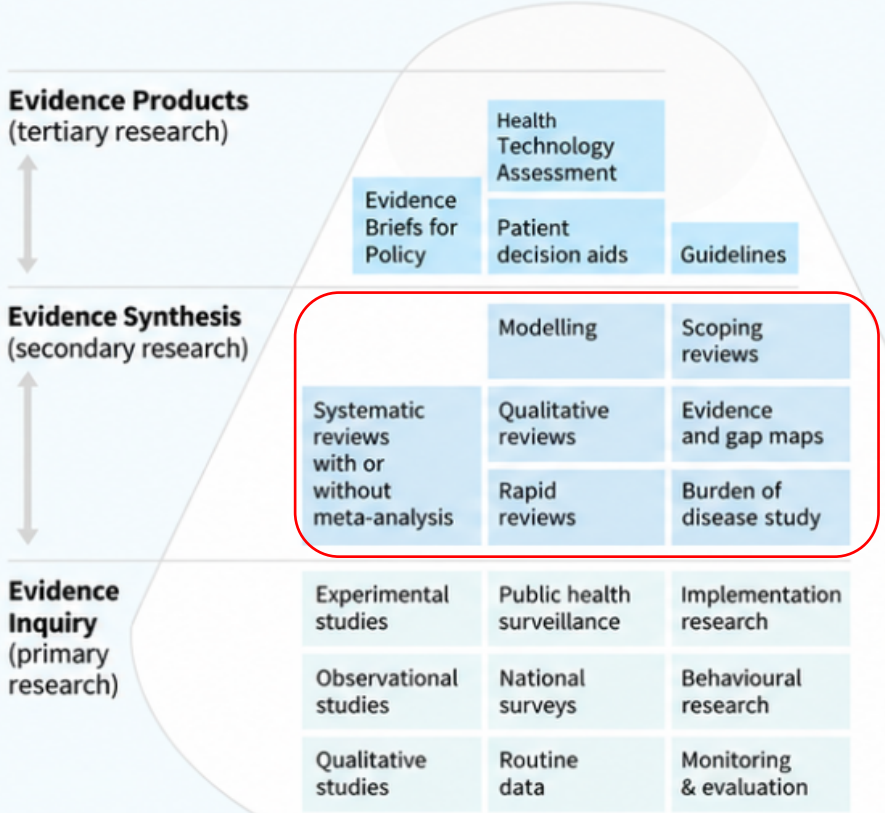
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- Proliferation of AI-related health research
- Ethical concerns exacerbated with use of AI
- Short research-to-product life-cycle
- High-profile examples of research carried out without oversight despite ethical risks
- International standards have addressed some issues but not kept pace
- Research ethics committee and third parties unable to provide comprehensive oversight



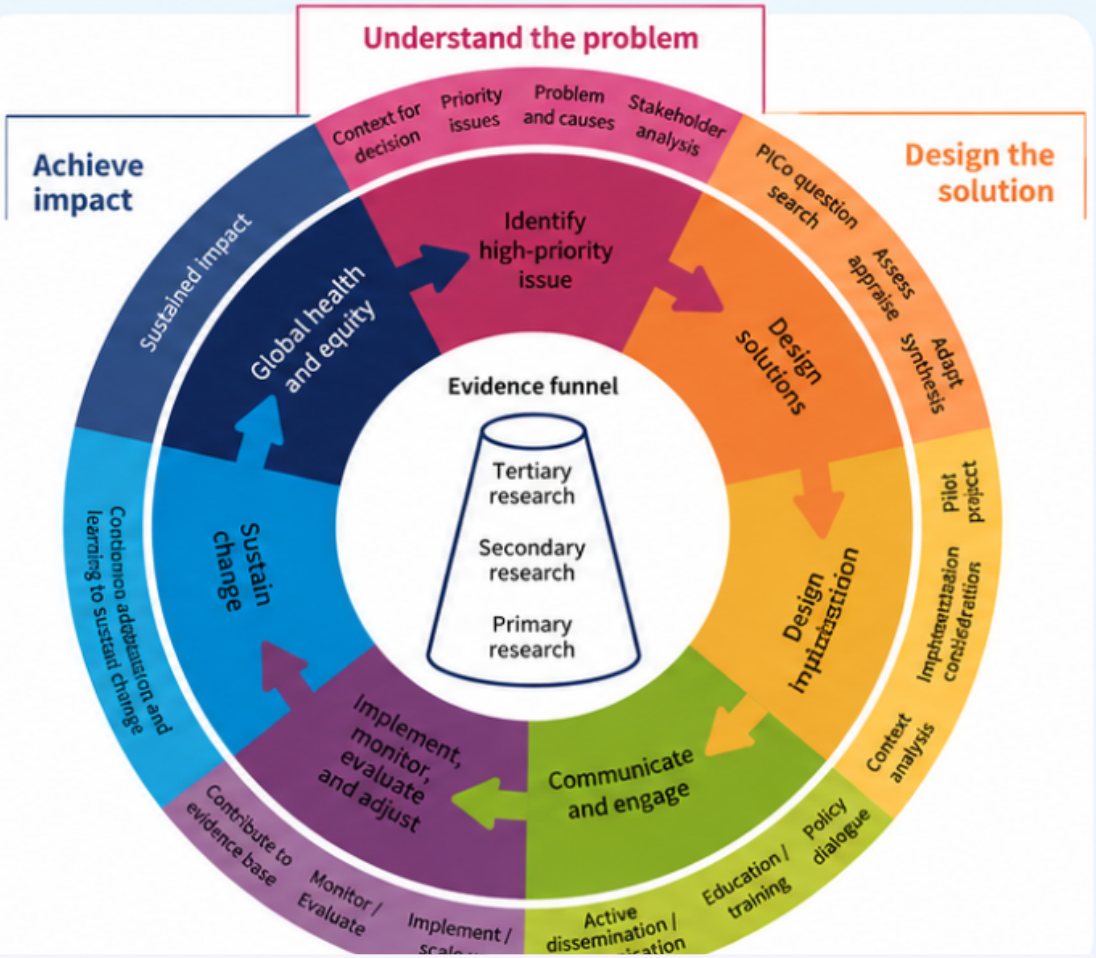
Returning to the evidence funnel: Secondary research

Different types of evidence
from primary research to evidence products



Inform decisions throughout the policy cycle

Evidence throughout the decision-making cycle
to design, implement and adapt solutions and achieve impact



EMRO: Using AI for Rapid Evidence Synthesis

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https://www.emro.who.int/evidence-data-to-policy/training-package/using-ai-for-rapid-evidence-synthesis.html

Training package for using AI for Rapid Evidence Synthesis

This training package offers in-depth guidance on effectively integrating artificial intelligence (AI) into the rapid evidence synthesis process. The materials focus on how AI can streamline and improve the efficiency of evidence synthesis. Users will gain insights into how AI tools can support various stages of synthesis, from conducting systematic searches to data analysis and interpretation.

Key learning objectives include:

- Understanding the role of AI in enhancing rapid evidence synthesis
- Identifying AI tools and platforms that aid in evidence synthesis activities.
- Exploring the balance between human expertise and AI efficiency in the synthesis process

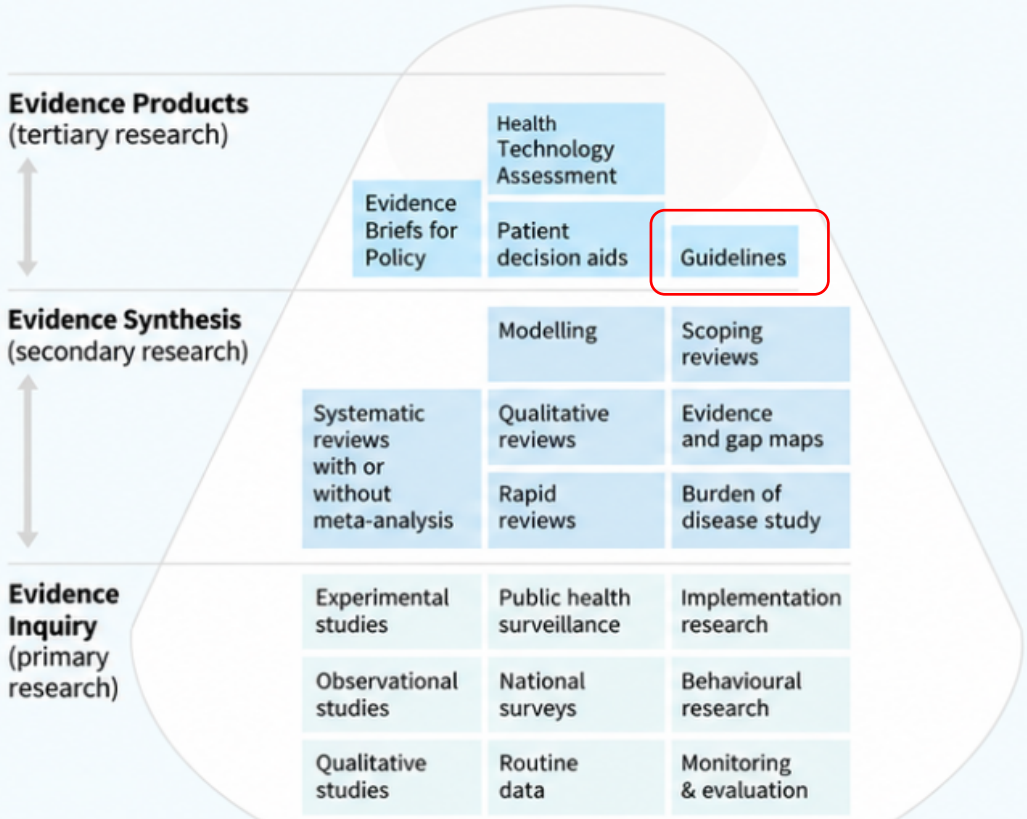
Using AI for rapid evidence synthesis

Topic	Source	Title	Format	Duration	Cost and access
Responsible use of AI in evidence synthesis — current guidance and practical framework for authors	Cochrane Collaboration (RAISE initiative)	Recommendations and Guidance on Responsible AI in Evidence Synthesis (RAISE) – Webinar recording, June 2025	Webinar recording	1 hour	Free, login required (Cochrane account)
How large language models assist with writing systematic review protocols and manuscripts	Cochrane – AI in Evidence Synthesis webinar series	How effectively do large language models and AI-based automation tools assist in	Webinar recording	1 hour	Free, login required

Returning to the evidence funnel: Tertiary research and guidelines

Different types of evidence

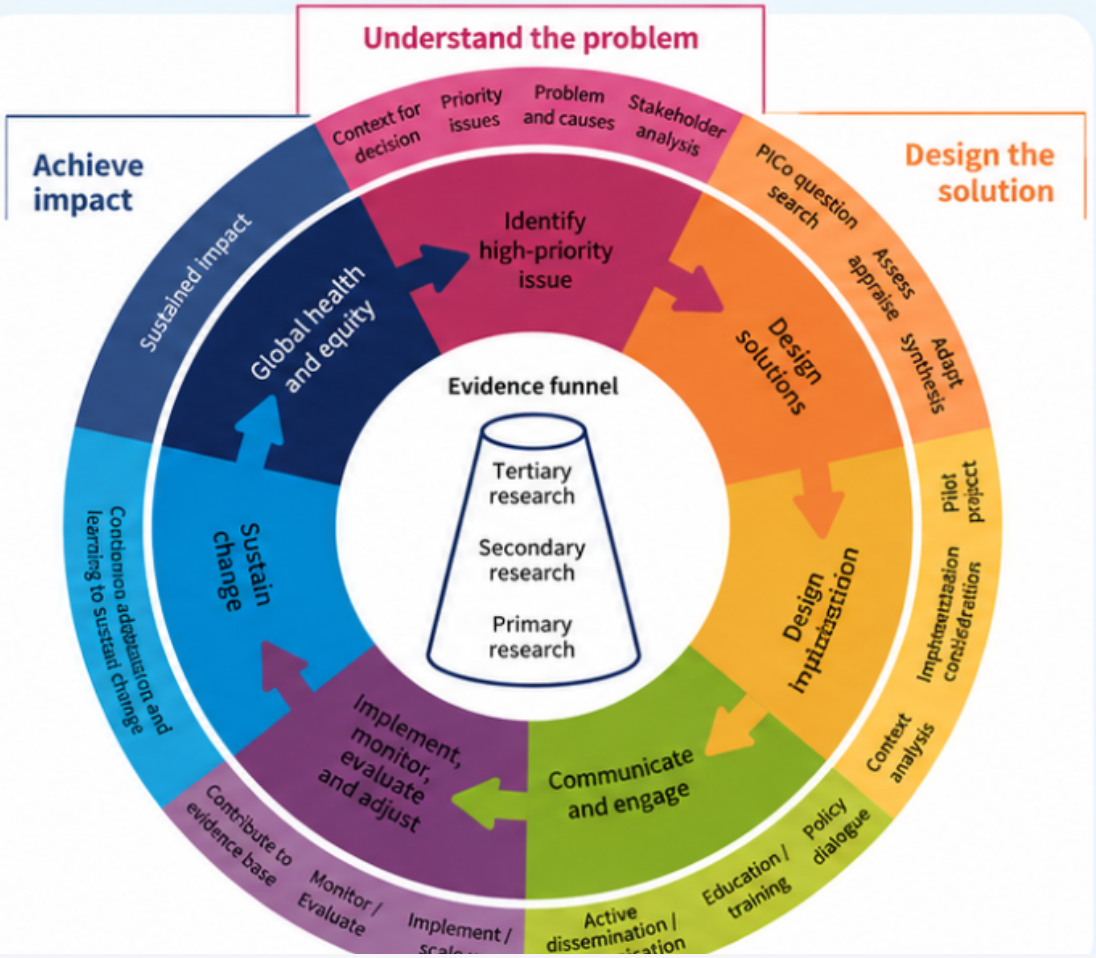
from primary research to evidence products



Inform decisions throughout the policy cycle

Evidence throughout the decision-making cycle

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Infodemic management & Social Listening
Ethical considerations

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AI can fuel infodemics - but can also help build trust

The same capabilities can amplify information risks or strengthen how institutions listen and respond.

AI CAN FUEL INFODEMICS

- **Scale & speed**
  Accelerates production and spread
- **Synthetic content**
  Makes misleading content easier to create
- **Information overload**
  Adds volume to a complex information environment
- **Amplification**
  Can reinforce and personalize narratives
- **Bias & opacity**
  Can reinforce inequalities and undermine confidence

AI

AI CAN SUPPORT TRUST

- **Listen at scale**
  Surface questions, concerns and narratives
- **Identify information needs**
  Detect uncertainty and information voids
- **Generate infodemic insights**
  Turn large volumes of data into understanding
- **Respond more effectively**
  Inform timely, relevant communication
- **Support inclusion**
  Better understand diverse communities and perspectives

Conversational AI: Growing influence, new risks for decision-making

Generative AI-powered conversational agents are increasingly shaping how individuals and institutions access information, interpret evidence and make decisions.

Their apparent credibility can mask important limitations:

CONFIDENT, BUT NOT ALWAYS ACCURATE

Convincing answers may be incorrect or misleading, without adequately communicating uncertainty.

SYCOPHANTIC

Responses may reinforce existing beliefs and preferences rather than challenge assumptions or present balanced evidence.

HUMAN-LIKE

Natural interactions may foster misplaced trust, overreliance and reduced critical scrutiny.

The goal: move from isolated AI tools to AI-enabled EIDM systems

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Trusted evidence & data

Quality • provenance • interoperability

Fit-for-purpose AI

Validated for the task and context

Methods & standards

Transparent • reproducible • quality assured

People & capabilities

AI literacy • EIDM skills • critical appraisal

Governance & accountability

Human oversight • equity • privacy • responsibility

Integrate appropriate AI capabilities into institutional decision-making processes - not alongside them.

From evidence to action: three takeaways

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1 ACCELERATE

AI can help make evidence more timely, accessible and usable.

2 AUGMENT

AI can support - but not replace - human judgement and accountability.

3 INSTITUTIONALIZE

Build trusted, equitable and AI-enabled evidence-informed decision-making systems.

Use AI to strengthen the systems that move evidence into decisions, decisions into action, and action into health impact.

ebhc CONFERENCE 2026

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Thank you!

ESTABLISHMENT OF ARTIFICIAL INTELLIGENCE COORDINATION COMMITTEE IN THE EASTERN MEDITERRANEAN REGION in 2026: objectives and functions

A regional platform to align AI in health with WHO ethical frameworks, evidence-based standards and regional health priorities

Coordination and alignment

Map and harmonize AI activities across programmes and country offices, avoiding duplication and supporting national health strategies.

Governance and ethical oversight

Guide AI governance so applications uphold transparency, inclusivity, accountability and human rights-based approaches.

Capacity building

Build AI literacy, technical skills and institutional competencies among health professionals and policy-makers.

Partnership and engagement

Convene Member States, academia, civil society, private sector and development partners for scalable AI solutions.

FIRST STEP

A regional landscape analysis and inventory of AI initiatives across WHO in the Eastern Mediterranean Region — to track progress, identify gaps and guide planning and resource mobilization.

14

members drawn from programmes and country offices

4×

meetings a year, minimum, plus ad hoc sessions

Annual

progress report to the Regional Director

Chair **Dr Arash Rashidian, Director, Health Systems and Life Course** | Secretariat **ISH/Digital Health and Innovation team, WHO EMRO**

Regional Platform for AI-Enabled Rapid Evidence Synthesis in EM Region

Accelerating access to reliable evidence for health policy and decision-making

Purpose

To strengthen evidence-informed policy-making by enabling decision-makers to access relevant, reliable evidence rapidly to inform health policies, programmes and priorities.

- ❖ Developed in collaboration with **Epistemonikos**, our consulting partner, combining technical expertise with regional priorities and needs.

Key Features

- **AI-enabled evidence synthesis:** Leverages artificial intelligence tools to support and accelerate the rapid evidence synthesis process.
- **Timely, evidence-informed decisions:** Helps decision-makers obtain relevant evidence within shorter timeframes to address pressing policy questions.

Launch and Pilot

- **Launch:** Planned for the end of 2026.
- **Pilot phase:** Implementation and testing in five countries and member institutions for the Regional Network of Institutions for Evidence and Data for Policy (NEDtP).