

Collaboratory 2030 Strategy



World Health
Organization

HUB
Pandemic and Epidemic
Intelligence

Collaboratory 2030 Strategy

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Introduction

Collaboratory is a flagship initiative of the World Health Organization Hub for Pandemic and Epidemic Intelligence (WHO HUB). Collaboratory convenes and connects a global public health analytics community to collectively and rapidly understand and characterize emerging health threats to support public health decision making.

Since launching in 2024, Collaboratory has grown into a trusted digital environment where technical experts can exchange knowledge, share new developments and innovations, codevelop analytical tools, and rapidly mobilize analytical support during public health emergencies.

Purpose of the Strategy

The purpose of this strategy is to provide a clear vision for how Collaboratory will evolve over the next five years (2025 – 2030) in convening analytical community and supporting analytical preparedness and response. It outlines how Collaboratory will continue maturing into a global, connected, and resilient analytics ecosystem and articulates how the initiative will strengthen the enabling conditions for collaborative analytics, expand technical value, deepen community engagement, and foster linkages between analytical work and decision-making at all levels.

Approach for 2025–2030

Between 2025 and 2030, Collaboratory will build on its foundations, expand its community ecosystem, and enhance digital and analytical capabilities that support collaborative analytics. Over the next five years, Collaboratory will:

- Strengthen the global network of analytical professionals and communities of practice.
- Enhance digital systems that enable secure, interoperable, and user centered collaboration.
- Foster a culture of openness, trust, and equitable participation.
- Expand technical value by pooling knowledge, making accessible reusable analytical assets, peer-developed frameworks, and shared approaches.
- Support preparedness and response, enabling more rapid, connected analytics during crises .
- Build governance structures that support technical excellence and collaboration, while ensuring sustainability, clarity of roles and expert appraised analytical processes.

About Collaboratory

Collaboratory is a flagship initiative of the World Health Organization (WHO) Hub for Pandemic and Epidemic Intelligence initiative. Collaboratory envisions a world where interconnected public health intelligence communities can collaboratively and rapidly respond with shared knowledge, experience, enhanced data and improved analysis for public health impact. To facilitate this, Collaboratory has established a digital environment for a global analytics community and its communities of practice.

Collaboratory bridges the gap where the public health intelligence community has lacked a common place to convene, access, share, and jointly solve public health challenges together. As both a digital environment and community, Collaboratory is building trust through a digital environment that is safe, secure and meets the analytical needs of the wider community and cultivating a culture of openness and collaboration. By fostering this collaborative analytics approach, Collaboratory is championing collaboration, co-creation and reuse of useful, quality analysis, tools, approaches and insights to answer the most relevant and pressing pandemic and epidemic intelligence questions.

Since launching in early 2024, Collaboratory has gained momentum with the global public health analytics community and, as of 2026, hosts over 20 communities of practice and more than 1800 members. Members include epidemiologists, data scientists, modelers, insight translators, decision makers, developers and more, coming from over 60 countries or territories and based at more than 300 institutions or agencies. Collaboratory boasts a diverse public health intelligence community that is focused on finding connections and collaborations for analytical impact.

Vision

An interconnected global public health intelligence network engaged in collaborative analytical response.

Mission

To connect a global public health analytics community that conducts collaborative analytics – pooling knowledge and experience to develop or curate analytic tools, models and resources for a more collective, rapid and community driven approach to analytics for public health decision making and emergency response.

Values

Connect and Empower Community

Link public health intelligence experts and communities to strengthen analytics through shared knowledge and collective action via a community-led approach, deepening relationships and ways of working before emergencies

Innovate and Respond Together

Co-create transparent, reusable analytical tools and resources for better, faster analysis, leading to informed decisions while harnessing new and innovative technologies to better coordinate and respond to public health emergencies together.

Build Inclusive and Diverse Collaboration

Cultivate an inclusive and trustworthy environment with community spanning geographies and disciplines to broaden perspectives, generate new ideas, share best practices and lessons learned

Objectives

Connect a Global Analytics Network	Enable Collaborative Analysis	Optimize Analytics for Impact
To build a trusted, accessible and diverse global network of analytical professionals supported by digital infrastructure that enables collaborative analytics	To enable interdisciplinary collaboration, co-creation, joint analysis and shared development of tools and methodologies and promote access and reuse of global analytics public health goods	To facilitate timely policy and response relevant analysis through clearer pathways and feedback loops with peers and decision makers and agreed frameworks that strengthen data to decisions

Connection

The foundation of collaborative analytics is connection, fostering relationships across institutions, countries, experts and disciplines to build trusted and resilient networks of global public health analysts. In a shared digital space, the analytics community can connect, access and exchange tools, methodologies, data and lessons learnt, breaking down the silos and solidifying relationships to enable timely, informed action.

Collaboration

Collaboration turns connection into action. Collaboratory is a space where members join and participate in communities of practice, find collaborators to do joint work on public health and analytics challenges. Community co-develop and improve analytical tools and resources for public health good, sharing them on the Collaboratory to build collective capacity.

Analytical Impact

The goal in all this work is to collectively produce analysis that is operational and relevant for policy and response questions, building pathways and relationships for more effective evidence-based decisions. Together, members of the Collaboratory community evaluate and improve methods and approaches, prepare analytical community, pipelines, packages and tools for response and policy decision making.

Collaborative analytics

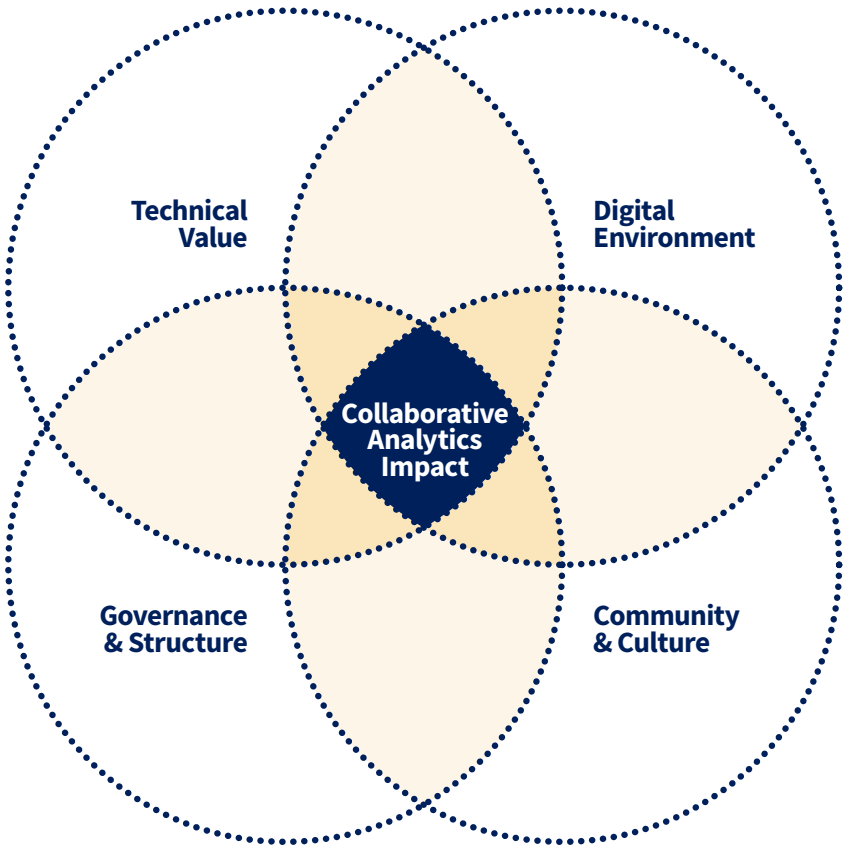
Collaboratory supports collaborative analytics. Collaborative analytics is a model of joint problem-solving that brings together diverse expertise, spanning epidemiology, mathematical modelling, social science, and multi-disciplinary and multisector contexts and public policy, within trusted digital environments.

Anchored in communities of practice, these collaborations generate context-specific and actionable data-to-decision pathways and pipelines. By strengthening the connection between data, analysis, and decision-making, collaborative analytics enhances both the effectiveness and confidence of pandemic and epidemic response efforts.

Collaboratory connects capacity where capacity gaps exist and democratizes analytical tools, making them more accessible and discoverable to those that need them while linking the community for collective capacity building.

In March of 2025 Collaboratory convened a summit where subject area experts identified four key enablers underpinning successful collaborative analytics: a robust digital environment, inclusive community and culture, sound governance, and sustained technical value. Each is necessary to foster trust, accelerate collaborative analytics, and optimize impact. These enabling factors together shape the strategic areas of work that Collaboratory undertakes.

Figure 1. Key Enabling Factors of Collaborative Analytics



Strategic areas of work

Collaboratory has structured its areas of work to ensure it strengthens the enablers for collaborative analytics by working across the four pillars.

Community & Culture

Building and supporting a global analytical community that fosters trust-based relationships, is more connected and strives toward partnership, collaboration, building collective capacity and pooling resources to better use data and analytics for public health impact.

Community Collaboration – Support long-term collaboration by fostering strong relationships across disciplines, institutions, and geographies. This enables communities to coordinate quickly and effectively during emergencies.

Diversity, Equity, and Inclusion – Ensure that diverse voices, including community, behavioral, and environmental perspectives, are meaningfully included in analysis and decision-making. Equity is embedded in engagement strategies, design tools, and support participation.

Trust and Openness – Create safe spaces virtually and physically for open dialogue, learning, and respectful exchange. Transparent communication and shared values are essential to building lasting trust within the community.

Interconnected Network – Connect global and local analytical communities, decision-makers, and technical experts into a cohesive, collaborative ecosystem. These established connections and collaborations strengthen collective preparedness and set the groundwork for rapid analytical response during times of emergency.

Digital Environment

Developing and maintaining a user-centered digital environment, enabling connection, collaboration, and collaborative analytics among the global analytics community.

Secure – Through architecture and policy, build and maintain a digital environment with security and privacy principles that enable trusted collaboration. Security is essential for building confidence among members and partners and ensuring responsible storage and use of information and data.

Integrated – Integrate digital solutions that support meaningful connections between the global analytics network and enable collaborative analytics. Applications and tools should be interoperable to support seamless information sharing, data exchange, and collaborative workflows.

Tailored to Users' Requirements – Build requirement gathering and user feedback into the ways of working, to understand and meet diverse user needs. Flexibility and agility to respond to evolving circumstances and emergencies and to change and tweak systems to meet specific needs is supported by the open-source foundation of the platform and by allowing users to adapt and customize solutions for their specific contexts.

Open and Accessible – Enable equitable access to tools, knowledge, and resources, ensuring that technology supports a community culture of openness and transparency. Open-source principles enhance this by removing barriers, encouraging reuse, and enabling shared ownership. These principles carry into the work done by members, where open-source, open science approaches are encouraged in what is built and shared.

Technical Value

Analytical collaborations that bring together expertise and skills that can produce adaptable analytical assets such as models, pipelines, tools, frameworks, analytical packages and resources, creating a pool of technical value vital to sustaining a dynamic and impactful analytical community.

Accessible Tools, Frameworks, and Resources – Facilitate equitable access to analytical tools, methodologies, and communication strategies to ensure that all users can engage effectively. Open, well-documented resources help communities apply analysis in real time and adapt tools to their specific needs.

Reusable, Comparable, & Improved – Promote the reuse and adaptation of tools and models by encouraging peer learning, case comparisons, and joint reviews. Feedback loops and shared reflection drive continuous improvement and help refine approaches for greater impact.

Agreed Frameworks and Standards – Support communities to co-develop and promote common standards and frameworks that guide analysis, modeling, and analytical collaboration. Stable frameworks and shared approaches improve interoperability, analytical quality, and enable coordinated action across sectors and regions.

Individual and Institutional Capacity – Create a space where peer-based capacity reflection and review are encouraged with building, mentoring, and multiple entry points to support both early-career professionals and experienced analysts. Long-term investment in skill sharing and collaboration ensures institutions are equipped to respond to future challenges.

Governance & Structure

Strong governance structures and policies not only provide a firm foundation for effective collaboration, transparent processes and agreed ways of working, but also support a collaborative culture and define roles and responsibilities. Aligning teams and building relationships that allow mutual trust to grow ensures that collaboration is purposeful, coordinated, and impactful.

Sustainable – Strong governance ensures collaboration is not ad hoc but embedded in long-term structures and relationships. It supports ongoing learning, adaptation and investment, building resilience to support a global analytical community that is ready for future challenges.

Analytical Preparedness – Governance frameworks allow for early development of shared agreements, roles, and responsibilities. These pre-established arrangements enable communities to act quickly and confidently when emergencies arise.

Pathways for Communication – Providing the digital environment and culture that fosters network and collaboration, leading to clearer lines of communication and agreed ways of working. These established pathways ensure timely coordination and alignment during both preparedness and response phases.

Policy and Process – Defined processes and aligned standards ensure that policy needs are translated into relevant, actionable analytical work. Governance is shaped by diverse community expertise and ethical foundations that foster transparency, quality, and responsiveness in pandemic and epidemic analysis.

Collaboratory's work towards 2030

Collaboratory components

Collaboratory has gathered platform and community requirements from the public health intelligence community to define what is needed to build a supportive environment for collaborative analytics to thrive, a culture of sharing and openness, and a common space to pool knowledge and build collective technical value.

These components are crosscutting to the four strategic pillars of digital environment, community and culture, technical value, and governance and structure. They represent both the areas of work that Collaboratory is undertaking or supporting in the

next five years and those identified as important for future growth. Figure [2] below illustrates how these components support each other and work towards collaborative analytics. Table [1] provides more detail on the features and high-level descriptions within each component.

The components of Collaboratory strengthen collaborative analytics, making Collaboratory an analytical preparedness mechanism. Together, they encourage building meaningful relationships prior to an outbreak, ultimately leading to a more coordinated, efficient, and impactful response.

Figure 2. Collaboratory components based on community requirements



Table 1. Description of Collaboratory components & features

Collaboratory Component	Features and Description
Connected Community	Community members Pandemic and epidemic intelligence experts, spanning disciplines and geography connecting and participating on the Collaboratory.
	Communities of Practice Hosting of Communities of Practice where members come together with a common goal and agreed outputs or outcomes. Collaboratory is a flexible system that allows communities to scale and shrink as they tackle analytical challenges.
	Portal Community wide ecosystem of critical pages that facilitate the learning, discovery and participation of Collaboratory members beyond specific components, tools or communities of practice
	Member management System and personnel to support management of Collaboratory membership and profiles, as well as supporting member connection and collaboration. Designed to surface a community knowledge graph of affiliations, contributions and areas of expertise.
Collaboration & Knowledge exchange	Recognition and incentive Features and modalities to acknowledge contribution across the platform, provide recognition of collaboration and outputs, and incentivize use.
	Communication and events Sharing lessons learned, technical and community updates, announcements, and community events. Facilitate connections to expertise, capacity opportunities and across communities.
	Discussion forum Forum for members to communicate and engage with each other and for communities of practice to coordinate and curate content and discussions.
	Analytical collaborations Members working together to co-develop fit-for-purpose approaches, refine existing methods, and continuously improve analytical tools based on feedback, field experience, and evolving needs. Co-creation leading to practical scalable solutions grounded in real world use cases.
	Analytical capacity development Infrastructure to support analytics community in undertaking peer-based capacity building, sharing materials, developing shared frameworks and competencies for analytical and modeling capacity strengthening.

Tool & Resource
Marketplace

Analytical tools and resources repository

Repository of tools and resources such as models, code, tools, packages and other technical artifacts that enables members to discover, evaluate, and integrate community-contributed resources directly into their analytical workflows.

Analytical outputs

Sharing & accessing templates for common reports, dashboards, and outputs of analytics for reuse or repurpose for context. Community improving impact and translation of analytics for decision making.

Access and share

Members curating, accessing and sharing code, models, methodologies, tools, resources, epi pipelines and their documentation into a central repository, reducing duplication and accelerating results and learning.

Member insights

Members commenting, rating or reviewing tools and resources, providing feedback and guidance to other users and collectively improving interoperability, discoverability, and reusability.

Search function

Tools and resources across the Collaboratory that are easily discoverable.

Modeling and
Analytics Pipeline

Data Pipeline Architecture

Framework to create and manage interoperable pipelines for a data common, enabling data transformation, sharing and access.

Data harmonization

Shared standards and processes that align and harmonize data from diverse sources into an interoperable data ecosystem, ensuring quality and consistency.

Flexible Compute and Hosting

On demand cloud, HPC or local computing resources for analytics and modeling needs of the community

AI integrations

AI tools integrated to assist in building and optimizing analytical pipelines by assisting in accelerating model development, automating parameter extraction, configuring workflows, and improving discoverability of resources and analytical outputs. Tailored to epidemiological context while implementing best practices and safeguards.

Workbench

Secure environment for joint collaborative modeling and analysis where AI-assisted workflows guide users through data selection, model configuration, execution, and validation.

Linkage to decision
makers

Analytical request pathways

Established, clear and accessible pathways for countries and institutes to lodge analytical requests for linkage to appropriate analytical individuals/groups.

Agreed value

Strong relationships, clear roles, and aligned expectations, pre-established agreements and ways of working, and a built understanding and trust for rapid analytical response

Evaluation framework

Established guidance for successful pathways of analytics and modeling for informing public health decision-making, and how to evaluate and improve those pathways to increase utility for decisionmakers.

Frameworks and
policy

Frameworks for collaborative analytics

Community developed and agreed frameworks that strengthen analytical collaboration, coordination, sharing and trust, ways of working to improve data, data sharing, interoperability, analysis, model integration, and analytic outputs, and ultimately improve speed, quality and impact of analytics.

Collaboratory Governance

Structured processes, procedures, and personnel for sustained operation. Policies that maintain safety and privacy while reinforcing analytical collaboration.

Technical Guidance

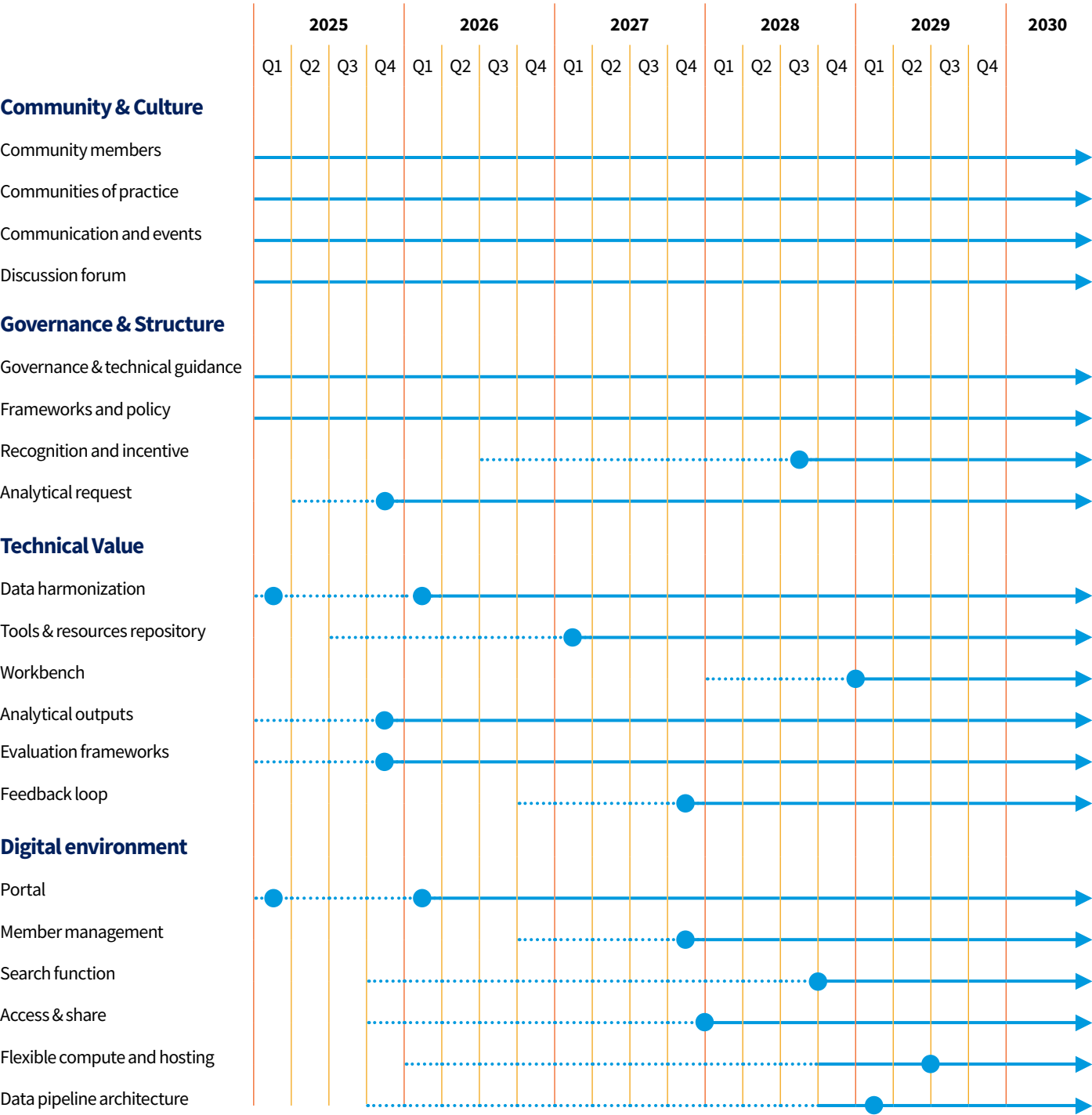
Technical advisory group including industry experts to guide strategic planning for project direction and sustainability, while maintaining technical and rigor.

Five-Year Roadmap

Collaboratory has moved from ideation, developed strong foundations, and is transitioning into a growth phase. This growth phase focuses on prioritizing Collaboratory components and features to strengthen and build digital infrastructure and community that fosters trust, enables collaborative analytics and pools collective technical value among the global public health analytical community and its communities of practice. Figure [3] below outlines the five-year growth plan for Collaboratory.

The speed and complexity of the development of Collaboratory components and features is strongly tied to resources and capacity. This roadmap outlines the key identified activities through 2030, though not all are fully funding. Partnerships/collaborations, technological advances, and funding developments may shift these timelines and deliverables, especially as Collaboratory seeks to be responsive to the needs and feedback of the public health intelligence community and global public health landscape.

Figure 3. Collaboratory 2030 roadmap



Governance and Reporting

Governance

Collaboratory is overseen by an internal WHO steering committee, Collaboratory Technical Advisory Group (CTAG) of external expert advisors, and oversight of daily operations by a project board and Collaboratory Secretariat.

Reporting

Collaboratory seeks to be accountable to its members and its objectives. A monitoring and evaluation framework to track and monitor success, and complementary qualitative methods have been put in place to track, improve and report on impact. Indicators cover the following key areas:

- Collaboratory Community Growth
- Representation
- Engagement & Collaboration
- Community connection
- Overall satisfaction of members
- Tools and resources shared and accessed
- Action & Impact

User centered design

Collaboratory is not static; it is in a constant state of phased iteration and improvement. A community feedback (user research) strategy feeds member input and user research. Collaboratory is committed to a community-driven process to achieve workflows and user journeys that support the overall objectives of analytical connection, collaboration and impact.

Funding

At the time of publishing this strategy, Collaboratory is supported by the German Government, the European Union Health Emergency Preparedness and Response Authority (HERA) and the Gates Foundation, as well as numerous collaborations, partnerships, and in-kind contributions.

How to get involved

Experts	Partners	Funders
• Become a Collaboratory member • Join a community of practice • Share, use or review analytical tools or resources • Collaborate with other members on the Collaboratory • Talk to us about starting a COP or contributing to an existing one • Become a community of practice lead	• Collaborate on a priority work area • Collaboratively build Collaboratory components or key activities • Create and lead a community of practice on the Collaboratory • Make your tool or resources available to the community on the Collaboratory • Talk to us about opportunities to develop an idea, put in place a partnership or agreement for a specific project • Collaborate on a technical workshop, run a simulation, put out a challenge • Approach us to participate in joint funding opportunities	• Fund Collaboratory key areas of work that leads to sustainability for the wider pandemic and epidemic intelligence community or fund a component or feature of interest • Fund partners or technical groups to collaborate with us • Link projects or initiative you fund to the Collaboratory • Reach out to us about a section of this strategy or of your work where you think we could collaborate

Find out more and join the Collaboratory at: www.who.int/initiatives/collaboratory

Contact us at: collaboratory@who.int



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