TMGL

The WHO Traditional Medicine Global Library

João Paulo Souza, BIREME Director,
on behalf of TMGL team @ BIREME and TMC

Sept 2024

PAHO — Pan American Health Organization — World Health Organization, Regional Office for the Americas | BIREME

1

Vision

"It should be our joint effort to build a global repository for traditional medicine".

(PM Modi at the G20 Ministers of Health Meeting, Gandhinagar, India, 18 August 2023)

"By November 2025, the WHO Traditional Medicine Global Library (TMGL) will be the primary global digital library for traditional, indigenous, complementary, and integrative medicine, offering access to a diverse and rich collection of traditional knowledge and scientific information to support health action. TMGL will connect traditional knowledge with scientific research, contributing to a healthier and more sustainable world."

Development

TMGL Development Phases

1. **Planning phase**
   (March 2024 – July 2024)

2. **Development phase**
   (August 2024 – October 2025)

3. **Operation and continued development phase**
   (November 2025 onwards)

Planning phase
(March 2024 – July 2024)

1. Mapping of data repositories (112 sources of information identified… and counting!)

2. Development of specifications for the WHO TMGL
   1. User stories
   2. Key stakeholders
   3. Focus groups at the Global coordination meeting in March 2024

3. Preparation of an executive project

4. Development of mock-ups

Development phase
(August 2024 – October 2025)

TMGL Versions:

- **Alpha Version (0.1)**: A stable and functional digital platform including the Global Portal, Six Regional Portals, 194 country pages, mobile platform responsiveness, with essential content, and limited number of information sources (around the existing 1.5 million records Medline, LILACS, and Mosaico).
  - Release date: 31 October 2024

- **Beta Version (0.5)**: fully developed digital platform, with robust content at global and regional level, basic content at country level, plus an expanded information base (cooperating network of databases) and Mosaico (cooperating network of institutions).
  - Release date: 31 March 2025

- **Full Version (1.0)**: fully developed and stable version (technology and content), including the TMGL Vault, evidence maps, and AI features incorporated as they become available
  - Release date: 31 October 2025

TMGL Development Principles

- User-centric, incremental, agile product development with Scrum

- Dedicated development team

- 2-week long sprints

- Community of early users and testers → feedback for incremental development

- Technology:
  - Digital Platform: Wordpress with React
  - Integrated systems and databases including BIREME FI Admin, IAHx, Mosaico

User-centric development

- TMGL will be made available during development in a "staging area"
- TMGL staging area is updated every two weeks (end of each sprint)
- Monthly mini-releases (0.1, 0.2, 0.3... 1.0) with new increments integrated in the previous month
- Active engagement of the TMGL Community
- Early users and testers alerted about the increments and asked to provide feedback
- Their feedback is considered as potential product backlog items

Operation and Continued Development Phase (November 2025+)

- Transition to operation and continued development

- Pipeline of content established and operational

- Progressive embedding of advanced features
  - Narrative Synthesis of search results
  - Geospatial predictive search
  - Evidence mapping
  - Natural language processing
  - Personalization of content
  - TK & AI Guided Bioprospection

TMGL Repositories

TMGL Repositories

Type	Name	Purpose	Access
Internal	Vault	Deposit, digital preservation and IP protection of Traditional Medicine Knowledge	Restricted
	TIM	Indexation and access to open-access, peer-reviewed journals in the field of TICIM	Open
	Mosaico	Indexation and access to TICIM content not published in scientific journals	
	TM Protocols	Open-access platform for sharing TICIM research protocols, promoting transparency, reproducibility, and innovation.	
External (integration)	Medline	Access to TICIM relevant content at Medline	
	LILACS	Access to TICIM relevant content at LILACS	
	GIM	Access to TICIM relevant content at GIM	
	Other cooperating databases	Access to TICIM relevant content from other cooperating databases (out of the 112+ databases identified)	

TMGL Vault

- A secure, digital repository designed to safeguard and protect traditional knowledge (TK), particularly that of indigenous and local communities. This knowledge can include medicinal practices, biodiversity, cultural traditions, and other forms of intangible heritage. The vault is not just a storage system but a secure environment ensuring the protection of intellectual property rights and preventing unauthorized exploitation or biopiracy.

- **Information included in the TMGL Vault is kept separated from other databases and is not accessible through the general open access TMGL portal**

- Access to TMGL Vault is restricted to accredited users (e.g. patent offices) in a dedicated portal part of the TMGL ecosystem

TMGL Vault

The TMGL Vault will be designed to honor and safeguard traditional medicine knowledge, ensuring its respectful preservation and ethical access.

It will foster collaboration with traditional knowledge holders, recognizing their vital role in guiding the responsible sharing of this knowledge, all while upholding international and national legal frameworks.

TMGL Vault

Real-World Examples:

- **India's TKDL (Traditional Knowledge Digital Library)** serves as a foundational example, documenting India's ancient medicinal knowledge and making it available to patent examiners to prevent biopiracy.(https://www.tkdl.res.in/)

- **Peru's Biocultural Heritage** is another example where traditional knowledge associated with biodiversity is stored to protect the rights of indigenous peoples.(https://biocultural.iied.org/)

TIM

- Inspired by LILACS and the Global Index Medicus, the **Traditional Index Medicus** (TIM) will provide indexation for open access journals in the field of traditional, indigenous, complementary, and integrative medicine.

- The TIM database will be accessible through TMGL portal

- Aim:
  - Increased the visibility of the scientific and technical output of open access, peer reviewed journals that are currently non-indexed
  - E.g. AIIA journals

Mosaico

- A digital database able to receive deposits of thesis, monographs, policy texts, and other Traditional Medicine relevant documentation.

- The Mosaico database will be accessible through TMGL portal

Mosaico

Aim:

- Enable access and use of information that is not indexed in other databases integrated to TMGL (e.g. Medline, LILACS, GIM, TMGL network of cooperating databases)

- Provide a digital repository for participating institutions. For example:
  - AIIA monographs that have been approved by review committees at AIIA and are not published in peer-reviewed journals can be deposited at Mosaico by registered librarians or other authorized personnel
  - Similar but not a preprint feature. In a preprint there is the expectation that the content will be published in scientific journals, for example, while at Mosaico, the content is not intended for publication in scientific journals.

TM Protocols

- An open-access platform for sharing TICIM research protocols, promoting transparency, reproducibility, and innovation

Aim

- To allow researchers to deposit their research protocols and facilitate later publication of research findings

Content

TMGL Content

Types of content:

- Content not generated by TMGL:
  - TMGL performs comprehensive bibliographic control, harvesting, indexation, archiving and enables search and recuperation of TM related content generated/published by third parties (e.g. journals, MoH websites etc)
  - Meeting predefined criteria, this content is not usually reviewed by TMGL editorial team and is made available for search at TMGL.

- Content generated by TMGL:
  - TMGL generates content as knowledge derivatives from primary information archived in TMGL.
  - This content is reviewed and approved for publication at TMGL.

TM Evidence Summary Portal

- Target audience: Policy maker

- An open-access journal of evidence summaries embedded at TMGL will be implemented, with attribution of DOI

- Each evidence map published in the TMGL evidence map platform will be summarized in a short, structured text containing the following sections: Title, Abstract (200 words); Background (200 words), Evidence Summary (including strengths and weakness of the evidence) (400 words), Implications for practice, policy and research (200 words), Conclusions (200 words), Methods Appendix (max 400 words).

Content Management

Content Management

- An Open Journal System (OJS) will be used to manage the content generated by TMGL

Content flow

- Content generators submit content to TMGL OJS → Editorial Board members or Editorial Advisors review→ EiC Reviews and Approves → Content production and publication at TMGL

About BIREME

- PAHO/WHO entity:
  - Latin American and Caribbean Center on Health Sciences Information
- 40 staff plus ~40 consultants in 3 teams (9 squads)
- 1998: The first Virtual Health Library is launched
  - Since then, 67 Virtual Health Libraries plus a wide range of information systems, databases, information products and services were developed to enable access to and promote the use scientific and technical information for action in health
- 2018: TCIM VHL Americas
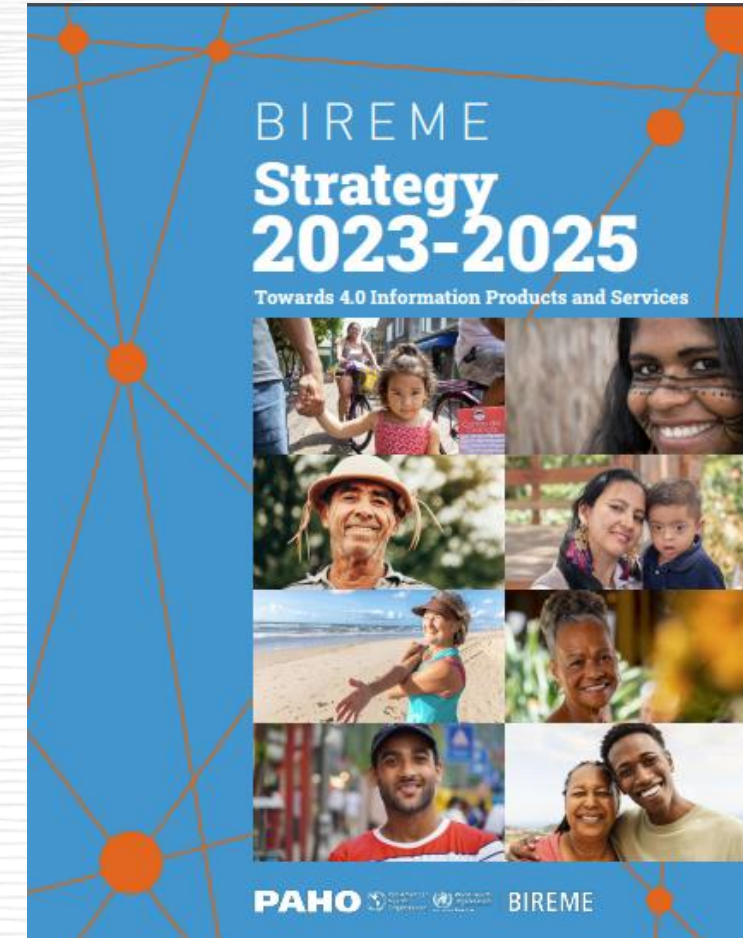- 2022: the VHL is considered by the UNOSSC as a good practice to enable South-South Cooperation

BIREME 2023-2025 Strategy

Accelerate digital transformation of information products:

- Technology:
  - **Research and Development** to incorporate advanced functions (A.I. and digital frontiers) into digital information products for health

- Agile methods:
  - Scrum implementation (building teams, certification)
  - From project management to **Product Management**
  - From a vertical organigram to an integrated matrix

BIREME
Strategy 2023-2025
Towards 4.0 Information Products and Services

PAHO · BIREME