Executive Report

XI Session of the Advisory Committee

of BIREME

February 8, 2023

São Paulo – February 2023
# Summary

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Presentation

BIREME/PAHO/WHO was established in São Paulo, Brazil in 1967 as the Regional Library of Medicine by means of an Agreement between the Government of Brazil and PAHO/WHO, with a technical cooperation model based on the essential functions of a medical library. Since 1982, the denomination changed to reflect the expansion of the technical cooperation model, including the outstanding role of providing regional and international visibility to scientific and technical health output in Latin America and the Caribbean (LA&C).

With a regional operation and a technical cooperation program aimed at meeting the respective priorities of the Latin American and Caribbean countries, BIREME is one of the three specialized centers of PAHO/WHO in the region. These specialized Centers, besides BIREME, include the Pan American Foot-and-Mouth Disease Center (PANAFTOSA) and the Latin American Center for Perinatology, Women’s and Reproductive Health (CLAP). The three Centers work together and support each other, when necessary, in the forwarding of technical and administrative demands.

In 2022, BIREME celebrated 55 years of uninterrupted activity with the mission of contributing to the development of health in Latin American and Caribbean countries (LA&C) through the democratization of access, publication and use of information, knowledge, and scientific evidence in convergence with the national and regional strategies of the 2030 Agenda and Universal Health. Actions are also being carried out within the framework of the celebrations of the 120th anniversary of PAHO/WHO, which has a portal (https://www.paho.org/en/120) for access to activities in context.
Through its main technical cooperation program, with 24 years of operation, the Virtual Health Library (VHL), which in 2022 was considered a good practice in south-south and triangular cooperation in the annual publication of the United Nations Agency UNOSSC (United Nations Office for South-South Cooperation), BIREME guides its initiatives, projects, products and services through the following lines of action, developed with the participation of more than a thousand academic and governmental libraries and more than 2,000 health institutions, considering:

**Increasing the visibility of the scientific health output** in LA&C countries by promoting the registry and indexing of their scientific and technical literature in regional, national, and international databases, adopting Open Access strategies, collecting data to assess scholarly communication in health, and developing web technologies and interfaces for information search and retrieval.

**Developing capacity to make evidence-informed decisions in health**, such as training activities on the access and use of evidence to guide policy and decision making in health, scholarly communication, and implementing instructional design for online learning courses integrated to the Virtual Campus for Public Health (VCPH).

**Developing and implementing knowledge management** activities to strengthen national health policies and strategies by improving the institutions’ capacity on knowledge management; developing information products and services designed to facilitate the information access and knowledge application to meet the strategic priorities and health objectives.

**Applying knowledge discovery process** to extract potentially useful information and generate indicators on health scientific and technical literature from data available in the Virtual Health Library (VHL) information sources.

Moreover, **developing Knowledge Translation products and services** to bridge the research-to-practice-gaps by means of special services on search, analysis, synthesis, and application of scientific knowledge to support health decision-making processes and helping to reduce the so-called "know-do-gap".
And equally important, **implementing Knowledge Platforms to integrate and manage research data** to ease measurement and analysis of research activity and facilitate the access to comparative information on the countries’ priority health issues.

Below lies a summary of the aspects related to the institutionality, governance, financial sustainability, and main achievements of BIREME in 2022, as well as a description of its products and services of the Center’s technical cooperation.
1 Institucionality

1.1 Status of the Center

Within the framework of the new institutional framework (ref. CD49.R5) of the Latin American and Caribbean Center on Health Sciences Information of the Pan American Health Organization/World Health Organization (BIREME/PAHO/WHO), in the process of implementation, PAHO/WHO in coordination with the Ministry of Foreign Affairs and the Ministry of Health of Brazil are mobilizing efforts to formalize the Headquarters Agreement in the country. This instrument will strengthen the operation and technical cooperation program of the Center both in Brazil and in the Region, effectively contributing to its financial, institutional, and technical sustainability.

On the 30th Pan American Sanitary Conference (CSP) and 74th Session of the PAHO/WHO Regional Committee, to be held on September 26-30, 2022 (https://www.paho.org/en/governing-bodies), the main results achieved by BIREME/PAHO/WHO are mentioned in the Report Quinquennial (2018-2022) of the Director of the Pan American Sanitary Office.

1.2 Governance

BIREME’s Governance Committees are characterized by the Advisory Committees (AC) and Scientific Committee (SC), the members of both committees have met annually for over 12 (twelve) years, to monitor the program’s operation and products and services of technical cooperation of BIREME/PAHO/WHO and to provide recommendations with an innovative character, for the Director and Executive Management of PAHO/WHO.

On the Governance Committees portal (https://comitesgoberranza.bireme.org/en/) documents and information sources related to the sessions already held are available, such as the program, executive report, and recommendations.

Context
The resolution of PAHO’s Directing Council (CD49.R5) established the structure of the new legal framework constituted by the Statute of BIREME, and a governance structure of BIREME, with the following composition:

A) **BIREME Members** defined in the categories: a) Member States: all Member States, Participating States, and PAHO Associated Members; b) Participating States: the WHO Member States besides those that are PAHO Members; and c) Participating Organizations: public international organizations with specific qualification related to information and scientific and technical communication. The participation of new members shall be defined by PAHO.

B) **Advisory Committee (AC)**: permanent body of BIREME formed by PAHO and the Government of Brazil as permanent members and by five non-permanent members. The non-permanent members were elected as follows:

- At the 59th Directing Council (CD59.R11): Chile, Guatemala and, Trinidad and Tobago for a three-year mandate (2022-2024);
- At the 58th Directing Council (CD58.R6): Colombia and Costa Rica for a three-year mandate (2021-2023);
- At the 56th Directing Council (CD56.R4): Guyana, México and Uruguay for a three-year mandate (2019-2021);
- At the 29th Pan American Sanitary Conference (CSP29R9): Barbados and El Salvador for a three-year mandate (2018-2020);
- At the 54th PAHO Directing Council (CD54.R5): Argentina, Jamaica and Peru for a three-year mandate (2016-2018);
- At the 53rd PAHO Directing Council (CD53.R5): Panama and Trinidad and Tobago for a three-year mandate (2015-2017);
- At the 51st PAHO Directing Council (CD51.R2): Bolivia and Suriname for a three-year mandate (2012-2014); and
- At the 49th PAHO Directing Council (CD49.R6): Argentina, Chile, and the Dominican Republic for a three-year mandate (2010-2012) and Jamaica and Mexico for a two-year mandate (2010-2011).

The role of this Committee is to make recommendations to the Director of PAHO on the programming functions, the working plan, and the financing of BIREME.
Ten sessions of the Advisory Committee (AC) occurred in compliance with the implementation of the new institutional framework of BIREME, following Resolution 5 of the 49th PAHO/WHO Directing Council (CD49.R5). The 10th Session occurred online on October 7, 2021. The 11th Session will occur online on February 8, 2023.

Next, information about the dates and participants of previous meetings:

<table>
<thead>
<tr>
<th>Session</th>
<th>Date</th>
<th>Location</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>X AC</td>
<td>October 7, 2021</td>
<td>Online</td>
<td>PAHO/WHO (EIH. BIR) Countries (Brazil, Barbados, El Salvador, Guyana, Mexico, and Uruguay)</td>
</tr>
<tr>
<td>IX AC</td>
<td>December 17, 2020</td>
<td>Online</td>
<td>PAHO/WHO (EIH. BIR) Countries (Brazil, Barbados, El Salvador, Guyana, Mexico, and Uruguay)</td>
</tr>
<tr>
<td>Ad-hoc</td>
<td>July 30, 2020</td>
<td>Online</td>
<td>PAHO/WHO (EIH. BIR) Countries (Brazil, Barbados, El Salvador, Guyana, and Uruguay)</td>
</tr>
<tr>
<td>VIII AC</td>
<td>October 24-25, 2019</td>
<td>BIREME</td>
<td>PAHO/WHO Countries (Brazil, Barbados, El Salvador, Guyana, Mexico, and Uruguay)</td>
</tr>
<tr>
<td>VII AC</td>
<td>November 7-8, 2018</td>
<td>BIREME</td>
<td>PAHO/WHO (EIH a.i., PAHO Brazil, BIR) Countries (Brazil, Argentina, Jamaica, Peru, El Salvador, and Barbados.</td>
</tr>
<tr>
<td>VI AC</td>
<td>February 2, 2017</td>
<td>BIREME</td>
<td>PAHO/WHO (AD, KBR, BIR) Countries (Brazil, Argentina, Jamaica, Panama, Peru, Trinidad &amp; Tobago)</td>
</tr>
<tr>
<td>V AC</td>
<td>December 3, 2014</td>
<td>BIREME</td>
<td>PAHO/WHO (AD, KBR, BIR) Countries (Cuba, Ecuador)</td>
</tr>
<tr>
<td>IV AC</td>
<td>November 26, 2013</td>
<td>BIREME</td>
<td>PAHO/WHO (KMC, BIR) Countries (Brazil, Bolivia, Cuba, Ecuador, Puerto Rico)</td>
</tr>
<tr>
<td>III AC</td>
<td>November 5, 2012</td>
<td>BIREME</td>
<td>PAHO/WHO (KMC, BIR) Countries (Argentina, Brazil, Bolivia, Chile, Dominican Republic, Suriname)</td>
</tr>
<tr>
<td>II AC</td>
<td>October 25, 2011</td>
<td>BIREME</td>
<td>PAHO/WHO (KMC, PAHO BRA, BIR) Countries (Argentina, Brazil, Chile, Dominican Republic)</td>
</tr>
<tr>
<td>I AC</td>
<td>August 31, 2010</td>
<td>PAHO HQ</td>
<td>PAHO/WHO (D, AD, DD, AM, KMC, LEG, PAHO BRA, BIR) Countries (Argentina, Brazil, Chile, Dominican Republic, México)</td>
</tr>
</tbody>
</table>
Note: Country in bold indicates the President of the session.

C) Scientific Committee (SC): Permanent body of BIREME formed by at least five scientific information specialists appointed by the Advisory Committee of BIREME. Its function is helping to maintain and improve BIREME’s capacity to follow the development of methodologies, technologies, products, services, and events that characterize the national and international systems of information and scientific communication and the challenges for their contextualization in the LA&C. The process of indication of its members by the national authorities, appraisal, and nomination of members of the Scientific Committee was concluded on December 5th, 2012, in the III Session of the Advisory Committee. The four members named were indicated by Canada, Honduras, Trinidad and Tobago, and Brazil and, a fifth member from the National Library of Medicine of United States. In the VI Session of the Advisory Committee, new members of the Scientific Committee were selected for their professional characteristics related to Scientific Communication, Research, Information Management, Education and Knowledge Management and Information Technology for three years term and could be reappointed for another three years.

Eight sessions of the Scientific Committee (SC) were held. The VIII Session occurred online on September 8, 2022.

Next, information about the dates and participants:
<table>
<thead>
<tr>
<th>Session</th>
<th>Date</th>
<th>Location</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIII SC</td>
<td>September 8, 2022</td>
<td>Online</td>
<td>PAHO/WHO (EIH. BIR) Countries (Brazil, Argentina, United States, México, The Netherlands, and Peru)</td>
</tr>
<tr>
<td>VII SC</td>
<td>September 30, 2021</td>
<td>Online</td>
<td>PAHO/WHO (EIH. BIR) Countries (Brazil, Argentina, United States, México, The Netherlands, and Peru)</td>
</tr>
<tr>
<td>VI SC</td>
<td>December 4, 2020</td>
<td>Online</td>
<td>PAHO/WHO (EIH. BIR) Countries (Brazil, Argentina, United States, México, The Netherlands, and Peru)</td>
</tr>
<tr>
<td>Ad-hoc</td>
<td>August 28, 2020</td>
<td>Online</td>
<td>PAHO/WHO (EIH. BIR) Countries (Brazil, Argentina, United States, and México) Note: The specialists from The Netherlands and Peru justified their absence.</td>
</tr>
<tr>
<td>V SC</td>
<td>November 28-29, 2019</td>
<td>BIREME</td>
<td>PAHO/WHO (BIR) Countries (Brazil, México, Jamaica, Colombia, Cuba, and Costa Rica)</td>
</tr>
<tr>
<td>IV SC</td>
<td>December 3, 2018</td>
<td>BIREME</td>
<td>PAHO/WHO (EIH a.i., BIR) Countries (Brazil, México, Jamaica, Colombia, Cuba, and Costa Rica)</td>
</tr>
<tr>
<td>III SC</td>
<td>December, 2017</td>
<td>BIREME</td>
<td>PAHO/WHO (AD, KBR, BIR) Countries (México, Jamaica, Cuba, Colombia, Costa Rica, and Brazil)</td>
</tr>
<tr>
<td>II SC</td>
<td>August 14, 2014</td>
<td>BIREME</td>
<td>PAHO/WHO (AD, KBR, BIR) Countries (Brazil, Honduras, Trinidad &amp; Tobago, and US National Library of Medicine)</td>
</tr>
<tr>
<td>I SC</td>
<td>July 25, 2013</td>
<td>BIREME</td>
<td>PAHO/WHO (AM, KMC, BIR) Countries (Brazil, Canada, Honduras, Trinidad &amp; Tobago, and US National Library of Medicine)</td>
</tr>
</tbody>
</table>

Note: Country in bold indicates the President of the session

D) Secretariat: permanent organ of BIREME, formed by the Director and the technical and administrative teams of the Center, with 38 collaborators. It is responsible for the management and execution of the programming functions of BIREME’s Biennial Work Plan (BWP) 2020-2021.
that was developed in coordination with the PAHO/WHO Department of Evidence and Intelligence for Action in Health (EIH). With the retirement of Dr. Diego Gonzalez, Director of BIREME in the period 2016-2021, the Center underwent a period under the interim direction of Dr. Sebastian Garcia Saiso (November 2021 to October 2022). In October 2022, the direction of the Center was taken over by Dr. João Paulo Souza.

The recommendations of the Governance Committees are considered in the preparation of BIREME/PAHO/WHO Biannual Work Plans (BWP), and therefore, considered in the development and strengthening of information products and services for the period. Below, we mention the recommendations made by both committees in previous and most recent meetings.

### 1.3 Recommendations - X AC (Oct 17, 2021)

i. Advancing the implementation of BIREME Statute, especially in the formalization of its Headquarters Agreement in Brazil

ii. Continuing to strengthen the search for funding and the sustainability of BIREME with the support of PAHO/WHO

iii. Expanding spaces for the dissemination of information products and services developed by BIREME, in the countries and internally at PAHO/WHO

iv. Identifying actions so that the products of excellence developed by the Center receive attention in PAHO/WHO member countries

v. Strengthening links with PAHO/WHO country offices and national counterparts, including academic ones, to support the identification of funding sources and the development of technical cooperation projects

### 1.4 Recommendations - VII SC (Sept 30, 2021)

i. Taking advantage of greater access to databases to further promote BIREME’s products and services;

ii. Strengthening scholarly communication for researchers and communities;

iii. Promoting the exchange of data, following the principles of FAIR (Findable, Accessible, Interoperable and Reusable);

iv. Intensifying the use of Artificial Intelligence;
v. Emphasizing the dissemination of BIREME's technical cooperation products and services, not only to health professionals and decision makers, but also to health students and information science professionals;

vi. Disseminating and promoting training in access and use of information and scientific communication;

vii. Improving the alignment of BIREME's product and service developments with open science;

viii. Involving data processing (instead of classic articles and portals) in the development of BIREME's products and services;


x. Including scientific integrity training in courses. Not only ethics, but integrity in the investigation, to ensure that it was done well; in addition to scientific publishing;

xi. Addressing the use of artificial intelligence in tools to support how to trust published information or how to have strategies to ensure the quality of information;

xii. Enabling new course formats in addition to current modalities.

1.5 Recommendations - VIII SC (Sept 08, 2022)

i. Establish a collaborative network to disseminate BIREME initiatives on evidence-based policies (BIGG, Evid@Easy, PIE etc.) in other forums in addition to the networks in which the Center already participates;

ii. To reach new audiences, create educational formats or new informative experiences, be proactive and inform them of something new, such as a playful experience, a game, in the midst of BIREME's formal environment and in the midst of so much information;

iii. Use new methodologies, such as gamification to teach traditional topics, access and use of health information and scientific communication. In addition, to have younger audiences on social networks to attract new users for BIREME's P/S and also to promote virtual meetings on topics such as symposiums on research, scientific publication, etc.

iv. Make known about BIREME products and services and the new tools that are developed (e-BluelInfo, DeCS/MeSH Finder, EVID@Easy, for example) for its institutional partners

v. Increase spaces for the promotion of information products and services developed by BIREME, in the countries and in the Region, with more active participation of public and private health institutions, as well as academic entities. Likewise, in the Windows of
Knowledge, if it could be included - in the different areas - about the information on what to do and be prepared for the next pandemics.

Although we have published the recommendations of the VIII Session of the Scientific Committee, held in 2022, this report highlights the advances related to the 2021 recommendations, as this session (XI of the Advisory Committee) was scheduled to take place in the last quarter of 2022, not having occurred due to the absence of nominations from Brazil and Colombia.
2 Biennial Work Plan (BWP)

BIREME’s Biennial Work Plan (BWP) for the 2022-2023 biennium (BWP 22-23) is under development and its structure is still characterized by 4 (four) main initiatives and approximately 40 Projects or Products and Services (P/S) associated to five Immediate and Intermediate Results (20.01, 21.02, 22.03 and 26.01, and 121.02 of the mirror category) of the PAHO/WHO Strategic Plan for 2020-2025, the Sustainable Health Agenda for the Americas (SHAA 2030) and the Sustainable Development Goals (SDGs) of the 2030 Agenda.

The BWP 22-23, up the end of December 2022, has been executed in more than 50%, moreover for considering resources received from the Ministry of Health referring to the previous biennium, and it can be observed that, despite the COVID-19 pandemic, the advances in the development of the Center’s products and services. Several of the products developed by BIREME in conjunction with its collaborative networks have focused on supporting countries with scientific-technical information aimed at responding to the COVID-19 pandemic and more recently the public health emergency caused by monkeypox.

The following table presents the initiatives and their products and services for BWP 22-23 in a structured way.
<table>
<thead>
<tr>
<th><strong>BWP22-23 - Initiatives and projects</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Information and knowledge management</strong></td>
</tr>
<tr>
<td>Strengthening of the Collaborative Network for Information Management</td>
</tr>
<tr>
<td>Thesaurus DeCS compatible with MeSH, interoperable with UMLS and extended with other terminology categories</td>
</tr>
<tr>
<td>VHL model of management of scientific and technical information on health applied in AL&amp;C</td>
</tr>
<tr>
<td>LILACS updated and available as the main index of scientific and technical output of LA&amp;C</td>
</tr>
<tr>
<td>Referential sources of information updated and available in the VHL</td>
</tr>
<tr>
<td>Standardization and quality of metadata in the VHL</td>
</tr>
<tr>
<td>SciELO Public Health Collection developed, expanded and strengthened</td>
</tr>
<tr>
<td>Ethics Research Committee Management Platform - ProEthos available to the countries</td>
</tr>
<tr>
<td>Global Index Medicus (GIM) operating in coordination with the Regional Offices and WHO Headquarters in Geneva</td>
</tr>
<tr>
<td>Bibliographic control and visibility of the scientific and technical output in health of LA&amp;C broadened</td>
</tr>
<tr>
<td>Strengthen the management of scientific and technical health journals in Latin America and the Caribbean</td>
</tr>
<tr>
<td>Leyes Network reactivated in the countries of LA&amp;C</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Information Services</strong></th>
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<tbody>
<tr>
<td>Services that contribute to reduce the gap between scientific knowledge and health practice developed</td>
</tr>
<tr>
<td>VHL reference and user services strengthened</td>
</tr>
<tr>
<td>Personalized information services expanded and improved - MyVHL</td>
</tr>
<tr>
<td>VHL search and retrieval interface</td>
</tr>
<tr>
<td>e-BlueInfo app implemented and with information for health teams</td>
</tr>
<tr>
<td>Capacity building in scientific communication in the Region</td>
</tr>
<tr>
<td>Distance Learning (EAD) and Open Educational Resources (OER) developed and available in the VHL</td>
</tr>
<tr>
<td>Promotion of access and use of health information in the Region</td>
</tr>
<tr>
<td>DeCS/MeSH Finder supporting the identification of terms in health sciences</td>
</tr>
<tr>
<td>SimilarInfo service expanding the visibility of the information available in the VHL</td>
</tr>
<tr>
<td>Report and Visibility of successful experiences related to SDG3 / Agenda2030</td>
</tr>
<tr>
<td>Network of Open Educational Resources Repositories developed and available</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Intelligence in Health Sciences Information</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Infometrics of the scientific and technical output of LA&amp;C published in LILACS</td>
</tr>
<tr>
<td>VHL Infobutton service operating in health information systems</td>
</tr>
<tr>
<td>Impact analysis on the use of information products and services developed by BIREME</td>
</tr>
<tr>
<td>Open metadata of the VHL referential sources of information</td>
</tr>
<tr>
<td>LILACS promoting Open Science in LA&amp;C</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Leadership and Management of BIREME</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Management of the entity and its ongoing operations to ensure the implementation of the TC program</td>
</tr>
<tr>
<td>Management System implemented in accordance with the institutional framework, recommendations and rules of PAHO</td>
</tr>
<tr>
<td>Risk mitigation plan developed and implemented</td>
</tr>
<tr>
<td>BIR communication strategy implemented and effective</td>
</tr>
<tr>
<td>Human resources plan 22-23 developed, implemented and monitored</td>
</tr>
<tr>
<td>PAHO procedures and recommendations related to the administrative management of the Center implemented</td>
</tr>
<tr>
<td>ICT infrastructure available and up-to-date in accordance with the standards and management methods guided by PAHO</td>
</tr>
<tr>
<td>Biennial Work Plan 22-23 developed, implemented and monitored</td>
</tr>
<tr>
<td>General operating expenses (GOE) planned and financed</td>
</tr>
<tr>
<td>22-23 learning plan developed, implemented and monitored</td>
</tr>
<tr>
<td>CRICS XI and VHL VIII implemented</td>
</tr>
<tr>
<td>Project Management to support the development of agreements with a focus on the mobilization and monitoring of funds</td>
</tr>
</tbody>
</table>
2.1 Summary of BIREME's Initiatives and Projects

A summary of some of the progress on each work plan initiative appears below.

**Initiative BIR.01 - Information and knowledge management**

- To strengthen and expand the work carried out by BIREME in favor of the VHL, LILACS, DeCS and all sources of information that contribute to the democratization of access and visibility of scientific knowledge in health in LA&C countries, was the objective of the calendar of Meetings of the Networks for the year 2022, aligned with the needs of coordination, planning, mobilization and exchange of experiences for information professionals from cooperating institutions in all LA&C countries, the United States, Spain, Portugal and Mozambique. The 2022 Meetings program includes 35 online sessions distributed in 3 axes: a) Coordination of LILACS and VHL Networks; b) Good practices of the editorial process and c) Access and use of information. Sessions take place on Wednesdays from 12 noon to 1:30 pm (Brasilia GMT-3). Until August (Aug 26th) there were 22 sessions, with an average of 100 participants per session, more than 2100 participants from 21 countries. All sessions are recorded and the recordings, along with the program and materials presented, are available on the VHL Network portal.

<table>
<thead>
<tr>
<th>2022</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sept</th>
<th>Oct</th>
<th>Nov</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengthening Health Information Networks in AL&amp;C</td>
<td>262</td>
<td>132</td>
<td>1</td>
<td>132</td>
<td>136</td>
<td>1</td>
<td>137</td>
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<tr>
<td>Coordination of Networking</td>
<td>64</td>
<td>136</td>
<td>2</td>
<td>134</td>
<td>134</td>
<td>2</td>
<td>134</td>
</tr>
<tr>
<td>Access to and Use of Information</td>
<td>67</td>
<td>472</td>
<td>2</td>
<td>134</td>
<td>134</td>
<td>2</td>
<td>134</td>
</tr>
</tbody>
</table>

- **LILACS** remains available as the main index of scientific and technical output of AL&C, it is updated daily with the contribution of its cooperation network. As of June 2022, the LILACS Cooperation Network has contributed 16,213 new records, and LILACS has reached a total of 1 million bibliographic records, the majority of which are journal articles and about 58% of the records with links to the full text. Of the new records (1st semester/2022) almost all (97%) have a link to the full text. Currently, LILACS indexes 983 journal titles from 21 LA&C countries. LILACS and the open science movement were a topic presented in the programming of sessions on good practices of the editorial process and in other events of the
VHL Network. Moreover, the FI-admin system started to make it possible to record the open data of the documents indexed in the databases.

- The management of LILACS and other databases update, maintenance and publication processes are carried out in the FI-Admin system. This system has been updated monthly with new features, corrections, and improvements to improve the bibliographic description and thematic indexing. In 2022, 10 issues were registered, which resulted in 4 updates. The updates focused on improving the LILACS Methodology regarding authorship responsibility, availability of research data and related resources that provide more transparency and verification of data integrity and reproducibility, in addition to attributing the type of use license adopted, related topics to Open Science. In 2022, improvements were made to the Electronic System for the Evaluation and Selection of LILACS Journals, with four analysis, support, and development activities, which resulted in three updates that improved the systematization of work processes between scientific editors, selection committee and evaluators.

- In 2022, the criteria were presented in the session on the evaluation process and selection of journals for LILACS, in addition to the focus on LILACS processes highlighted in the session on Good Practices of the editorial processes of scientific journals for LILACS. A new version of the criteria is expected to be drafted this year for validation in the LILACS Network.
Another ongoing action is the 2022 version of the profile of journals indexed in LILACS. Data collection has a deadline for August 31, 2022, and then, the processing and analysis of data will start, that will generate the 2022 version of the dashboard.

In the process of **evaluation and selection of LILACS Brasil 2022 journals**, 24 self-assessments of compliance with the LILACS criteria were carried out, with 15 journals submitting documentation to the process and 12 meeting the minimum requirements for analysis during the Committee meeting. Four journals were approved with restrictions and still have to carry out implementations for effective indexing in LILACS. Regarding titles from Latin America and the Caribbean, 6 titles from 5 countries (Argentina, Bolivia, Colombia, Peru, and Uruguay) were also indexed. [https://boletin.bireme.org/pt/2023/01/16/lilacs-brasil-conduz-avaliacao-e-selecao-de-novos-periodicos-para-integrar-sua-base-de-data/](https://boletin.bireme.org/pt/2023/01/16/lilacs-brasil-conduz-avaliacao-e-selecao-de-novos-periodicos-para-integrar-sua-base-de-data/).

**Network Capacity Development** - In 2022, training and updating activities for the Collaboration Network were offered according to the defined calendar, with wide participation of employees and information professionals from all Latin American and Caribbean countries. Until August 2022, 32 online training sessions were held, with the participation of 1700 representatives of VHL cooperating institutions from 20 countries. Documentation related to these capabilities is available at [https://lilacs.bvsalud.org/es/sesiones-virtuales-lilacs/](https://lilacs.bvsalud.org/es/sesiones-virtuales-lilacs/).
In 2022, the LILACS Indexers Network is very active, it participated in 21 sessions with practical activities and feedback, which was reflected in the documentation and review of 239 publications from 23 cooperating centers regarding the adequacy of the indexing carried out by the network’s professionals. Two novelties of the year: 1) Joint activities between the Network of Indexers and Reference Librarians, with topics that are of interest to both networks, either for the description of the contents of the publications or in the recovery by these contents that represent the subject of the documents, types of studies and other data fields; 2) Dashboard for analyzing the quality of indexing of the VHL Nursing Librarians Network by member of the LILACS Indexers Network (figure below); and 3) LILACS Indexing Group with 31 participants from Brazil and Mozambique prepared and posted 15 indexing tips responding to questions asked.
The **VHL Model** of information and knowledge management in health continues to be promoted, developed, adapted to the needs of the Network, and is applied in 67 national, thematic, and institutional initiatives (Instances) in 30 countries of the Region. The evolution of the VHL Model is constant, conceptually, and technologically, always aligned and based on collaborative and networked work. Several activities were carried out to manage and strengthen the VHLs defined in the 2022 Action Plan, including: monitoring of the Network’s work, technical and methodological support for reviewing and updating the contents of the portals, webmaster activities, besides the renewal of VHL portals with restructuring of the information architecture, graphic design, updating the technology platform version (CMS WordPress) and hosting in BIREME’s IT infrastructure. It is worth highlighting the following VHL instances:

- **National Instances:** VHL Bolivia, VHL Costa Rica, VHL Guatemala, VHL Honduras, VHL Nicaragua, VHL Uruguay, VHL Mozambique.
- **Institutional Instances:** Digital Library of the National Health Council (Brazil), VHL São Paulo Municipal Health Secretariat (Brazil).
- **Thematic Instances:** VHL Public and Environmental Health Engineering (Brazil), VHL Nursing (International), VHL Health Economics (Brazil) and VHL Primary Health Care (Brazil).
- **Regional Instances:** the VHL TCIM Americas and Nursing instances continue with their very active networks and innovating the VHL Model, demanding regular development actions, technical and methodological support.

**VHL Traditional, Complementary and Integrative Medicine** of the Americas has 17 participating countries. ([mtci.bvsalud.org](https://mtci.bvsalud.org)).

**VHL Nursing** ([http://bvsenfermeria.bvsalud.org](http://bvsenfermeria.bvsalud.org)) – In 2022, it is in the process of creating and formalizing the Network of Librarians of the Nursing area, scheduling meetings with its Advisory Committees and the XV Meeting of the International VHL Nursing Network, in addition to the launch of two products: new thematic area “Theoretical-methodological
Foundations of care in Nursing” and the new website of the VHL Nursing (in the process of restructuring).

- The VHL management technology platform and its information sources continue to be updated, using modern technologies and “Open Source” platforms. The VHL platform is composed of an ecosystem with web applications and services. As of 2022, there are over 130 open source repositories available on the GitHub service.

- The **VHL Maturity Instrument** remains available as a tool for evaluating instances of the VHL Network in the adoption of methodologies, technologies and best practices related to the VHL Model. The self-assessment process is continuous and carried out periodically by the coordinating institutions of the VHL instances and their advisory and/or executive committees. Periodically, BIREME updates, reviews, and implements improvements to the tool. The VHL Network adopted the Maturity Instrument and since its launch (March 2021). In 2022, 19 self-assessments were carried out by national, thematic and institutional VHL instances. A logo was created to represent the Maturity Instrument, having the VHL hexagon and 4 lines that allude to the steps and levels of maturity that a VHL Instance can reach. The instrument is available at [http://red.bvsalud.org/modelo-bvs/pt/instrumento-de-maturidade-da-bvs/avaliacao-da-maturidade-da-bvs/](http://red.bvsalud.org/modelo-bvs/pt/instrumento-de-maturidade-da-bvs/avaliacao-da-maturidade-da-bvs/).

- The **Bibliographic Control** of the scientific and technical output of the LA&C countries is carried out by the Collaboration Network through the registration and indexing of said output in LILACS, in national databases such as: CUMED (Cuba), BINACIS and ARGMSAL (Argentina), LIBOCS (Bolivia), LIPECS and MINSAPERU (Peru), ColecionaSUS (Brazil), COLNAL (Colombia), BDNPAR (Paraguay); thematic databases such as: MOSAIC, BDENF, BBO, VETINDEX, HOMEOINDEX, INDEXPSI, PREVCAN and others. many of these databases make up the VHL regional index. The efficiency of this collaborative work is sought through the development of capacities in the Network for the management of methodologies and technologies offered by BIREME, in addition to constant technical and methodological support actions and coordination of the Network in more than 20 countries. The result is reflected in the approximately 90 sources of reference information that are managed in the system in the FI-Admin. It brings together about 90 databases with more than 1.3 million bibliographic records, more than 9,800 multimedia resources, more than 39,000 internet resources and more than 25,000 events, 2,000 educational resources and more than 19,000
information about journals. In 2022, 50,454 new records were created, and 110,987 records were updated in FI-Admin. [https://red.bvsalud.org/fi-admin-pt/bases-de-dados-bibliograficas-geridas-no-fi-admin/]

- The SciELO data collection system from Chile, Paraguay and Uruguay was developed to connect with the OAI-PMH protocol (Open Archives Initiative Protocol for Metadata Harvesting) and the collection and loading was carried out successfully (2,700 articles) although there has been impoverishment of available metadata (at least 12 data fields less than previous process, institutional affiliation and DOI among them).

- DeCS continues to be updated annually, in accordance with the MeSH update maintained by the NLM, in the English, Portuguese, and Spanish languages. The Spanish version for LA&C has the collaboration of the Facultad de Medicina de Universidad de Chile and the Spanish version for Spain, the collaboration of the Instituto de Salud Carlos III. In 2016, the MeSH translated into French was incorporated into the VHL, in addition to the translation of the exclusive DeCS categories (Public Health, Homeopathy, Sanitary Surveillance and Science and Health) in collaboration with the Université de Rouen (France), with annual updates. Since the DeCS/MeSH 2019 version, the new thesaurus management system has been developed and is in operation, integrated into the FI-Admin system, with the ability to manage multiple vocabularies in multiple languages, replacing the legacy system of more than two decades. In the same system, the vocabulary of Environmental Health and Public Health Engineering was also maintained, under the responsibility of Brazil’s Fundação Nacional de Saúde (FUNASA). The DeCS/MeSH 2022 version in English, Portuguese and Spanish was published and in September, when the update and translation of the DeCS 2023 version were also initiated.
Highlights of the DeCS/MeSH 2022 edition:

- Review and update of the exclusive category in Public Health, after validation by a Committee of Experts in each of its 8 subcategories. After public consultation, recommendations were sent to update the Public Health category.
- Creation of the new exclusive category of DeCS Traditional, Complementary and Integrative Medicines (TCIM), after analysis by specialists from the VHL TCIM network and public consultation.
- Inclusion of 277 new MeSH descriptors and 182 DeCS descriptors in exclusive categories; alteration of 50 descriptors in Portuguese, 38 in Spanish and 35 in English; exclusion of 198 exclusive descriptors from the Public Health category.
- Change of scope notes for 273 descriptors and 21 non-preferred concepts.

- From the visualization of metadata of authors, institutions and DeCS/MeSH terms applied in the indexing of documents in LILACS, a directory of specialists and institutions in certain health topics was generated.

- In the context of health legislation, legislation based on risk factors remains available, under the REGULA initiative, in coordination with the Legal (LEG/PAHO) and Health Systems and
Services (HSS/PAHO) areas of PAHO Headquarters, with 900 normative acts available. Another normative base is under development on the topic of migration and health. In 2022, a database was created, and two interfaces are under development: *Migraciones y Salud* (471 normative acts) and the PAHO legislation website with 1272 normative acts.

- The Self-Learning Course in **Scholarly Communication in Health Sciences**, hosted at the Virtual Campus for Public Health (VCPH), aims to promote the dissemination of scientific research results in the countries of the Region. After it launched in November 2019 and to date, it has over 22,000 enrollees and nearly 12,000 from 10 countries have completed the training. Of the professional categories that took the course, nursing professionals stand out, followed by general practitioners and specialist physicians. The success of the course in Spanish led the Brazilian Ministry of Health to include its translation into **Portuguese** as a line of action in the context of cooperation term TA6/TC95. The translated course was launched in April 2021 and so far, has more than 1,600 subscribers and more than 300 approved from Brazil and other Portuguese-speaking countries.
An Advanced Course in Scholarly Communication in Health Sciences in Spanish, in self-learning mode has just been published in the VCPH. With a focus on Open Science and other relevant topics, the course has with the objective of complementing the introductory course and addressing topics that allow users to know in depth the metrics of science evaluation, the factors that influence the reproducibility of research results and mainly, how to adopt open science practices at each stage of the research, from the methodology of projects to the progressive opening of peer review and dissemination of underlying research data in open access repositories. In the first weekend after its publication, the course already had 129 participants from Mexico, Argentina, Ecuador, Colombia, and Peru, among others.

- In addition to the self-learning course, in 2022, we participated in 16 national and international congresses and webinars, presenting lectures on scientific communication topics, with an emphasis on open science.

- Regarding resources on Scientific Communication in Health, it is worth mentioning the complete reformulation of the VHL Scholarly Communication in Health, made available in March/2022. With interfaces in Portuguese, Spanish and English, the new portal was designed to include scientific editors, journal editorial teams, authors, referees (or reviewers or evaluators of articles), librarians, professionals, and students of information sciences and all those who seek learn more about the specialized process of writing and publishing the results of scientific research in health sciences in nationally edited journals, in Latin America and around the world. The sources of information that are available on the portal were selected with the objective of meeting the information needs of users on scholarly communication in health sciences.

Knowledge Translation Products and Services
This line of action contributes to bridging the gap between research and practice through special services of research, analysis, synthesis, and application of scientific knowledge to support health decision-making processes and help reduce the so-called "know-do-gap". These are resources
developed and made available in the VHL that primarily aim to facilitate the use of evidence for health decision makers.

- **Windows of Knowledge** – its focus is to highlight selected content on relevant and/or priority topics for health. In the first half of 2022, 20 Showcases were updated and prepared: SUS Management, COVID-19 (3), Smallpox, Clean Water and Sanitation, Traffic Safety, Tobacco, Vaccination Week in the Americas, World Health Day, Tuberculosis, Obesity, Leprosy, HIV-AIDS, Food and Nutrition, Eliminating Open Defecation, Eliminating Solid Fuels for Cooking, Neglected Infectious Diseases, National Health Council on the Move, and ASSA2030. In 2022, a Portal was created that brings together the VHL Knowledge Showcases, which can be accessed at [https://bvsalud.org/vitrinas](https://bvsalud.org/vitrinas).
Evidence Maps - It consists of the graphic representation of the evidence that exists in an area/theme, classified by types of intervention evaluated and results measured. It has a dual function: to synthesize the available evidence and to identify gaps in knowledge. In the first half of 2022, around 10 new maps were produced applying the methodology adapted by BIREME. Maps are available on the Tableau Public Bireme Platform (https://public.tableau.com/app/profile/bireme#!/) and indexed in the VHL collection TCIM Americas, in the PIE and LIS Regional database. A new Evidence Map Portal was developed and published in the VHL (Regional Portal), highlighting the following collections:
  
  - TCIM/ICHP: Yoga and Hatha Yoga, Acupuncture and Auriculotherapy, Meditation and Mindfulness, Traditional Chinese Medicine, Cupping Therapy, Moxibustion, Aromatherapy, Homeopathy, Apitherapy, Brazilian Medicinal Plants, Oral Ozone Therapy, Medical Ozone Therapy, Reflexology, and others.
- Health Promotion: Maternal Mortality, Malnutrition Problems, Health Inequalities, and others.

In order to support and develop capacities for the production of Evidence Maps, the online course on Evidence Maps: methodology and application was launched in December 2022, in self-learning mode, in Portuguese, English, Spanish and French, and with only one month the course exceeds 600 subscribers. The course is published and available on the Regional Public Health Virtual Campus:

EVID@Easy - Operation and regular updating of the Guided Evidence Search tool, which aims to support VHL users in the search for evidence for decision-making in public health and in health practice. Evid@Easy is integrated into the VHL and has more than 20 search filters by methodological type of study, associated with more than 160 health topics related to the priority topics of the Sustainable Health Agenda for the Americas - ASSA 2030 and the following goals of the Sustainable Development Goal 3 - Health and Well-Being:

- Target 3.1 Reduce maternal mortality.
- Target 3.2 Reduce deaths of newborns and children under 5 years of age.
- Target 3.3 End neglected tropical diseases and combat communicable diseases.
- Target 3.4 Reduce premature deaths due to non-communicable diseases.
- Target 3.5 Prevention and treatment of psychoactive substance use.
- Target 3.6 Reduce deaths and injuries from traffic accidents.
- Target 3.7 Universal access to reproductive health services.
- Target 3.8 Achieve universal health coverage.
- Target 3.9 Reduce deaths from chemicals and contamination of air, water and soil and sub targets (under construction).

All search strategies are described and registered in the VHL Search Strategies Repository [https://bvsalud.org/queries/category/objetivos-de-desenvolvimento-sustentavel/ods-3/](https://bvsalud.org/queries/category/objetivos-de-desenvolvimento-sustentavel/ods-3/).

The service is currently undergoing restructuring, both in terms of the interface and translation of commands that facilitate navigation and user interaction, as well as in terms of content, more specifically with regard to reviewing search strategies to better meet user demand.

BIGG-REC is a database that brings together the recommendations of the PAHO and WHO GRADE guides for SDG-3, which aims to collect all clinical, public health and health policy recommendations issued in the WHO and PAHO guidelines that follow the GRADE approach. It is an open access repository on the VHL that allows decision makers to identify recommendations relevant to their issue of interest. One of its main objectives is to enable decision-making by health professionals and decision-makers, contextualized at local, provincial, regional and jurisdictional levels, adopting or adapting these recommendations. [https://bigg-rec.bvsalud.org/es](https://bigg-rec.bvsalud.org/es)
COVID-Therapy presents a summary of evidence of therapeutic options for COVID-19. The resource is available on the VHL and is based on a live systematic review of evidence published periodically in the PAHO-IRIS Repository. Information is summarized and presented using the GRADE approach, including interactive summary of results tables and full-color estimates of effects summaries. (https://covid-therapy.bvsalud.org/)

Other databases available in the VHL whose focus is decision-making in health are BIGG, PIE, and BRISA.

- **International Database of GRADE Guides (BIGG)**, launched in 2019, it continues to be updated and is available for access on the VHL Regional portal. Reaches more than 1,700 registered guides and its collection is classified according to the goals of SDG3.

- The database dedicated to studies on the systematization of evidence for health policies, called **PIE – Evidence Informed Policy**, launched in 2021, records more than 700 studies between policy briefs, deliberative dialogues and other types of content that systematize evidence for policies.

- **A BRISA/RedTESA database** provides access to more than 2,700 health technology assessment reports published by more than 30 institutions in 13 countries in the Americas. Due to the COVID-19 pandemic, a special section was created at the base with more than 430 drug, medical device and protection evaluation reports. A new RedETSA portal was developed in coordination with the Medicines and Health Technologies area of the PAHO Headquarters (MT/HSS), including new functionalities, such as Fact Sheets from member countries.

- **POEMs Podcast** - Regarding knowledge translation, the production of a podcast series for the VHL Primary Health Care (VHL APS) entitled POEMs - Patient-Oriented Evidence that
Matters stands out, based on structured Summaries of Systematic Reviews, annotated, and contextualized for PHC in the context of SUS. ([http://aps.bvs.br](http://aps.bvs.br)) The first season of the POEMs Podcasts Series presented 24 episodes weekly on the Anchor, Spotify, Apple Podcasts and Deezer platforms, and reached about 900 reproductions in a period of 6 months (Feb-July 2022).

BIREME’s technical cooperation has been maintained in the development of regional and international projects, such as:

- **ProEthos**, to systematize the activities of research ethics committees, supporting teams from Argentina, Honduras, Guatemala, and Peru in the implementation of the platform, as well as PAHO Headquarters, in coordination with the Regional Bioethics team, for the use of ProEthos in PAHOERC - PAHO/WHO Research Ethics Committee. In 2022, the ProEthos platform continued to be updated to improve it and develop new functionalities, according to the experience in use by the PAHOERC team. In coordination with the Regional Bioethics team, ProEthos is being implemented by the WHO Research Ethics Committee, for adoption in Geneva. Due to WHO's interest, the platform has been evaluated and updated to meet all technical cybersecurity requirements. In addition to Geneva, other WHO Regional Offices have shown interest in adopting ProEthos to support AFRO and EMRO member countries.
CARPHA EviDeNCe Portal for access to health evidence for the English Caribbean countries. The portal continues to be updated and especially the MedCarib database with around 234 documents on COVID-19 in the Caribbean. In 2022, training took place for representatives of the MedCarib network, in addition to BIREME's online participation in the ACURIL 2022 event.

Global Index Medicus (GIM) aims to organize and disseminate the technical and scientific output of low- and middle-income countries. It is an initiative developed by BIREME in coordination with WHO Headquarters in Geneva and the WHO Regional Offices. The GIM offers access to more than 2.3 million bibliographic references, of which 71% are in full text, available in LILACS, AIM, IMEMR, IMSEAR and WRIM databases, representing the Americas, Africa, Eastern Mediterranean, Southeast Asia and the Western Pacific, from the WHO. In 2022, the GIM grew by about 1.25% with more than 28 thousand new bibliographic references. Its search interface grew by 50% in number of users and sessions and 33% in pages visited in 2022 compared to 2021. At the request of the WHO, BIREME has contributed to the development of the global base of scientific literature on COVID-19. The WHO COVID-19 survey interface was launched in April 2020 and continues to be updated daily. Data curation is the responsibility of the WHO Library team, which coordinates a global network of volunteers and experts for the identification, selection, and organization of documents. The monthly growth of the database is more than 27 thousand documents. To date, there are more than 670,000 documents available, of which 81% are in full text, including bibliographic references from international databases such as MEDLINE, Scopus, Web of Science, Proquest, Embase, LILACS, WPRIM, Elsevier etc., manuscripts from preprint servers such as bioRxiv, medRxiv, SSRN, chemRxiv, SciFinder, SciELO Preprints etc., repositories and gray literature from national and international organizations. Accesses to the database show its visibility and global impact, with accesses from 235 countries and territories, according to the Google Analytics service. Comparing the Jan-Aug 2022 with the same period of 2021, there was a 152% growth in the number of users and 148% in sessions. Since its launch, it has had more than 3.6 million users, 4.5 million sessions and 7.8 million page views.
Initiative BIR.02 – Information Services

- The VHL Regional Portal – [https://bvsalud.org/](https://bvsalud.org/) offers access to a wide collection with 53 sources of information that add up to about 34 million records. The collection includes LILACS, MEDLINE, national (11), thematic (15), regional (MEDCARIB, MOSAICO, BDENF) and international databases, preprint servers (4), institutional repositories (WHO-IRIS, PAHO-IRIS), Educational resources (12 VCPH), internet sites (LIS), multimedia resources and terminologies (DeCS/MeSH). The expansion of visibility and access to scientific and technical information on health in LA&C can be observed through the number of accesses to the collection of information sources on the VHL Regional Portal. In 2022, there were almost 22.5 million access sessions by 14.3 million users, which resulted in about 55.8 million page views. Comparing with the same period of the previous year, we have an increase of 1% in the indicators of access to the regional portal of the VHL.

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- **Capacity building for access to and use of information** – Due to the COVID-19 pandemic, practically all the strengthening and capacity development actions offered by BIREME were in the virtual modality and in the context of the VHL, LILACS, Network of References and Network of Indexers. Priority was given to the development and updating of self-learning courses and open educational resources (OER) on VHL products and services, in four languages (Portuguese, English, Spanish and French). Courses have been available at CVSP (Regional) since December 2022 and already register more than 1,500 subscribers. Links to the course Access and Use of Scientific Information in Health:
Refinando os resultados de busca - https://youtu.be/18OKELsLYts
Dicas para pesquisar na BVS - https://youtu.be/8YI2Skxrbwo

Recuperando información en la Portal de Búsqueda de la BVS - https://youtu.be/u4wGLvSmm98
Refinando el resultado de la búsqueda - https://youtu.be/qnaaqayCsQA
Trucos para búsqueda en la BVS - https://youtu.be/ZGbBho_3v8

Retrieving information from the VHL Portal - https://youtu.be/RbaW18WYmIA
Refining results from the VHL search - https://youtu.be/SKZG7YzbRA
Tips for searching the VHL - https://youtu.be/x0K4gLnP0rM

Recherche de l'information sur le Portail BVS - https://www.youtube.com/watch?v=leJNTuH10UI
Affiner les resultats de la recherche dans BVS - https://www.youtube.com/watch?v=VQyFne20k3k
Astuces pour la recherche dans BVS - https://www.youtube.com/watch?v=l2bcRn6-celi

Guides and Tutorials (in the process of being published on the homepage of the VHL Portal)
https://drive.google.com/drive/folders/1VwOSlbzC20GzNJe9P_Zw7bC9hiH0cGoj?usp=sharing

In addition to the courses, users have at their disposal the service “Ask the Librarian” (operated by the Livezila system) available at the VHL on different pages and portals of the VHL. Through this service, more than 974 questions from users were answered, resulting in the construction and/or updating of more than 220 search strategies, all registered in the VHL Search Strategies Repository. In this Repository, more than 900 search strategies are registered and described, which can be consulted and reused by any user.

Actions with the Network of Reference Librarians continue with the aim of strengthening the network and training its members, with monthly meetings together with the network of Indexers. In 2022, there were nine virtual meetings presenting a series focused on indexing and searching the main types of methodological studies, with an average of 50 participants in
each session. The Reference Librarian Network is the basis of the VHL users' service and relies on 167 members from 16 countries in the Region.

- **The VHL Personalized Services (MyVHL)** that allow users to identify themselves in order to use the services of selective dissemination of information, have made it possible to know the profile of interest of the VHL public, making it possible to offer specific information by segment of users. MinhaBVS has more than 63 thousand active users, an increase of 15% in the last year. More than 1,600 users receive weekly email alerts with documents that match their interest profiles available on the VHL.

- **e-BlueInfo is an App** that brings information for clinical practice into the hands of primary health care professionals. Brazil, Peru, Guatemala, and El Salvador participate in the initiative, publishing selected and updated content on the App. Since its launch (in December 2018) there have been more than 19,370 downloads. Version 2 of e-BlueInfo App offers new services, such as a collection of Guides published by PAHO and WHO on various topics (workforce, traffic accidents, sexual and reproductive health, etc.), a retrieval mechanism for evidence scientific publications using ICD-10 coding, documents related to country information, available in the VHL, other types of content such as legislation and videos and the possibility of consulting, once authenticated, the preferred documents and the documents visited. In 2022 the App registered 2,061 downloads made by participating and other countries (Perú, Guatemala, El Salvador, Paraguay, and Colombia).

- The integration of preprints repositories into the VHL, started in 2020, has consolidated itself as a source of information available in the VHL, along with the possibility of linking preprints to their respective peer-reviewed manuscript and accepted for publication in a scientific journal. This link is being tested on the WHO COVID-19 search interface. Also in this interface, semantic information extracted through natural language processing algorithms of titles and abstracts of Medline records related to COVID-19 was integrated, using the SemMed platform of the US National Library of Medicine. In addition to providing a quick view of the semantic relationships between the concepts of biomedical thesauri belonging to the Unified Medical Language System (UMLS), the user can also retrieve semantically similar documents. Another service available since April is the consultation of citation data from a document indexed in the bibliographic information sources of the VHL through the Dimensions Badge.
service. VHL users can easily see how many citations a publication has received, as well as explore citation data using the free Dimensions platform itself.

Initiative BIR.03 - Information Intelligence in Health Sciences

- **Specialized tools were adopted in the management, quality and visualization of data**, allowing to improve the metadata stored in LILACS and generate and visualize infometric indicators of scientific and technical output in health in LA&C. A new conceptual model and a new systems architecture, oriented to Date Lake and data as services, are under development to promote a framework for the governance of the data available in the VHL information sources, through techniques of extraction, transformation, aggregation, data analysis and visualization to generate indicators of scientific and technical output stored in LILACS and MEDLINE.

- The beta version of the open metadata portal of the VHL information sources was developed, which guides users on how to collect bibliographic description data from the more than 34 million documents in health sciences available in the VHL, through protocols and standards open, in XML, JSON, CSV and RIS formats. Collection can be done manually through the search interface or by automated programming mechanisms using available web services. There is a continuous effort by BIREME to improve this service considering the FAIR Principles, so that the bibliographic description metadata is Findable, Accessible, Interoperable and Reusable.

- The **Infobutton VHL service** was developed, which follows international standards for exchanging data with Electronic Health Record Systems, promoted by HL7 (Health Level Seven International), which allows retrieving the scientific evidence available in the VHL according to the historical context patient's doctor. This service is available in version 2 of the e-BlueInfo App, allowing healthcare professionals to access the evidence available in the VHL related to ICD-10 codes. A service to **identify DeCS/MeSH terms** present in the title and summary of documents is integrated into the process document indexing system in the FI-Admin system, facilitating the indexing process with a future contribution to the development of an automatic indexing system.
- **DeCS/MeSH Finder.** This feature has been in regular operation since 2021, and it allows you to automatically locate any controlled vocabulary descriptor, synonym, or qualifier in each text in seconds. It was developed considering the needs of researchers during the process of writing and sending scientific articles, editors who need to review manuscripts submitted to journals and information science professionals who work in the processes of indexing health content.

- The **Evidence Map Methodology** adapted by BIREME was applied in the elaboration of new evidence maps. By August 2022, about 20 evidence maps had been produced and published in the VHL, and other evidence maps are in the production phase with the participation of groups of researchers in different areas.
- **IM (Impact Measurement)** is a platform for publishing personalized polls for the different types of pages on the sites, with the objective of obtaining the opinion of users about the published contents and the VHL's functionalities. The platform promotes a new way of measuring and analyzing the impact of information products and services. It has been in operation on the pages of the VHL Regional since March 2021 and has more than 950 participating users who responded to the items grouped in the tables below with the respective agreement rates:

<table>
<thead>
<tr>
<th>Opinião - páginas do portal da BVS</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>concordam que o conteúdo disponibilizado atende às suas necessidades</td>
<td>82%</td>
</tr>
<tr>
<td>estão satisfeitos com a informação encontrada na BVS sobre o COVID-19</td>
<td>77%</td>
</tr>
<tr>
<td>acreditam que o conteúdo da BVS está atualizado</td>
<td>89%</td>
</tr>
<tr>
<td>acreditam que o conteúdo recuperado na BVS é confiável</td>
<td>89%</td>
</tr>
<tr>
<td>conseguiram localizar o que precisavam</td>
<td>80%</td>
</tr>
<tr>
<td>recomendariam o uso da BVS aos seus colegas</td>
<td>93%</td>
</tr>
<tr>
<td>estão satisfeitos com o funcionamento das páginas</td>
<td>84%</td>
</tr>
<tr>
<td>concordam que o layout geral do conteúdo é compreensível e bem organizado</td>
<td>77%</td>
</tr>
</tbody>
</table>

Regarding the VHL search interface:
These results continue to demonstrate the necessity to deepen information about the needs of users and their difficulties, as opportunities for improvement that BIREME should consider for VHL products and services. In addition to IM platform data, the redefinition of the use of access statistics and other requests and interactions with VHL users have promoted changes in the Windows of Knowledge, in the Regional VHL Portal and in other websites.

Links for the panels:

- [https://datastudio.google.com/reporting/b27d2472-0160-492f-af22-e8d836d846dc/page/2TyUC](https://datastudio.google.com/reporting/b27d2472-0160-492f-af22-e8d836d846dc/page/2TyUC)
- [https://datastudio.google.com/reporting/2b270401-b135-4efb-86bd-f74e087041bb/page/CsyUC](https://datastudio.google.com/reporting/2b270401-b135-4efb-86bd-f74e087041bb/page/CsyUC)
A new feature was developed in 2022 in the “Integrated Service for Administration of Reference Information Sources (FI-Admin)” to contemplate the relationship between the bibliographic description data of a technical-scientific document, with its open research data available in a repository, as well as other associated digital assets such as images, videos, audios, etc. With this, the LILACS database promotes the articulation between the indexed technical-scientific literature and the open data of associated research, when available.

**Initiative BIR.04 – Leadership and Management at BIREME**

- In December/2022, more than 50% of BWP 22-23 is implemented and is still monitored, including the preparation of periodic analyzes and controls on the formalization of its funding sources and the support of fortnightly meetings to monitor products, services and projects and the respective use of regular and non-regular financial resources (grants) and the corresponding operation of the PAHO/WHO WD/PMIS system.

- Recognition of the technical cooperation program for the Virtual Health Library (VHL), as a good practice in southern and triangular cooperation in the annual publication of the United Nations Agency UNOSSC (United Nations Office for South-South Cooperation),

- Strengthening of BIREME’s administrative and management structure considering alignment with PAHO/WHO policies and procedures highlighted as a result of internal audit assessment in the first half of 2022.

- Close communication with the Ministry of Health of Brazil (MoH) in coordination with PAHO Brazil to formalize Terms of Cooperation (TCs) for the development of projects, P/S for the improvement of BIREME and for national and regional technical cooperation. The effective efforts to forward the TC95 TA9 and the TC93 TA2 and TA3 stand out, the latter extending the validity of the TC93 for another 5 (five) years (Feb/22-Feb/27). In the first semester, TA4 was formalized for the development of the Virtual Library on Indigenous Health, as agreed between the Representative of PAHO Brazil and the Executive Secretary of the Ministry of Health at the time.

- The BIREME Headquarters Agreement in Brazil is under discussion under the leadership of the PAHO Brazil Representative in coordination with the Ministry of Foreign Affairs (MRE) and the Ministry of Health (MoH), however, until this Agreement is formalized, if is processing TA5
to TC93 to enable the transfer of regular financial resources from the MoH to BIREME, in the years 2022 and 2023.

- The management of BIREME remains effective and in line with the policies and procedures of PAHO/WHO and its banking services coordinated with PAHO/WHO Brazil, as BIREME’s bank account at Banco do Brasil was closed in March 2015 and the ongoing process of the complete implementation of the new institutional framework of BIREME.

- Within the framework of its new institutional structure, still in the process of being implemented, its Statute is still pending formalization and the CNPJ (National Registry of Legal Entities) of BIREME is updated with national bodies, mainly in the Federal Revenue, which strengthens the institutionality of the Center in Brazil.

- The virtual activities continue with regular actions to support the development of skills and the strengthening of the organizational climate, fixed intra- and inter-team meetings, encouragement of training programs made available by PAHO/WHO and support from external consultancy, online labor gymnastics and Cafés with Ideas monthly, which include information and knowledge exchange activities.

- The global pandemic COVID-19 has brought numerous challenges and individual and collective efforts impacting the readjustment of operations also with the support of information and communication technologies. In Annex 3 are the actions of BIREME during the pandemic and emergency telework. Also, to keep staff informed about all activities at different levels and to support everyone in taking ownership of events and making decisions, BIREME/PAHO/WHO launched the Human Resources Management Weekly Report, called “Fique por Dentro”, which in December/2022 has published 117 editions so far. The editions can be accessed at the “Fique por Dentro” website at (https://fiquepordentro.bireme.org/)
BIREME/PAHO/WHO has an IT infrastructure that meets the demands of technical cooperation, providing a park of servers installed in a datacenter a few kilometers from its physical facilities and with direct access to the international Internet via the São Paulo Research and Education Network (rednesp). There are about 300 technical cooperation instances hosted on these servers and which have an internal and external monitoring system, aiming to ensure their high availability. In addition, the backup system is periodically reviewed and improved, helping to minimize impacts in the event of incidents. Another important point is information security and, in this context, BIREME/PAHO/WHO continues to implement a set of good practices to guide the implementation and updating of systems, as an example of it is the result of evaluation of the security components of LILACS and ProETHOS2 products carried out in coordination with the IT area of PAHO/WHO Headquarters.

Even during the emergency telework due to the global pandemic caused by COVID-19, BIREME achieved significant results with national counterparts and BIREME teams, due to its efforts in project management and effective communication, which allowed achieving results in consensus, planned financial disbursements and also the formalization of important agreements and agreements (extension of the TC93 and transfer 2021 (delayed) and the Annual Contract with Sociedade Paulista de Medicina/Hospital São Paulo (SPDM/HSP) for local intellectual capital at BIREME. Thus, in the biennium 2022-2023, BIREME also has regular resources from PAHO, with more than 10 (ten) projects in the context of the Terms of Cooperation in coordination with PAHO/WHO Brazil and more than 10 (ten) projects with Departments of the Central Office and Offices in PAHO countries, and also with WHO in Geneva, ensuring a broad and effective management of the sources of funding for BWP 22-23 designed for the Center.

BIREME's formal communication channels remain dynamic and in operation (institutional website in Spanish, English and
Portuguese), Intranet, Facebook, Twitter and BIREME Bulletin with emphasis on the six texts published monthly in three languages, which is in its 75th edition (http://boletin.bireme.org/en/). BIREME Bulletin is disseminated to institutions that are part of the VHL and LILACS Networks, government entities and throughout PAHO/WHO.

- BIREME's institutional website has been updated and works on a Drupal platform, as well as the webpages of PAHO Headquarters, Representations and Centers. BIREME website provides information about the Center, its mission, objectives and history, governance, its main products and services (described in Annex 1), news and main institutional supporters (http://www.paho.org/bireme/) , in three languages. News on the website about launching and updating products and services, technical cooperation actions and institutional news are updated weekly.

- BIREME's products and services are usually presented at face-to-face events that take place in the Region. In Annex 2 we present a list of the main events in which BIREME was present in 2022.

- BIREME's presence on social networks continues to be even more active, with daily updates on the progress of BIREME's projects, products and services and sharing relevant information from PAHO and WHO on COVID-19 and the Organization's health campaigns.

- Communication plans are being implemented within the scope of projects that have the contribution of BIREME, to publicize the products and services incorporated and the progress in the different stages of the project.

- Communication activities are undertaken with the focal points of the PAHO Offices in the countries for the dissemination of BIREME information products and services, supporting their implementation at the local level and advocating with the national authorities.

2.2 BIREME’s financial structure

The establishment of a stable and balanced structure for financing BIREME was one of the main motivations for the BIREME's institutional reform. The Statute of BIREME foresees that this structure of financing is analyzed and recommended by the Advisory Committee of BIREME, also recommending the financial contributions from Brazil and from PAHO, and from the participating members of BIREME.

The following table shows the distribution of financial contributions received in 2022.
Contributions in pipeline:

- TA5/TC93 - The regular contribution for 2022 and 2023 is being negotiated with the MoH (approximately US$1.6 Million)
- Agreement with FIOCRUZ. In negotiation with the MS Project and International Cooperation Coordination (approx. U$ 220,000)

About the Terms of Cooperation (TC) with the Ministry of Health of Brazil (MoH), through PAHO/WHO Brazil:

**TC93/TA4**

The IV Additive Term (TA4) to the 93rd Technical Cooperation Term consists of implementing strategies for the development and improvement of management and media, in various supports, of information and knowledge aimed at improving indigenous health, among other health issues in the Americas.

**TC93/TA3**

The III Additive Term (TA3) extended the validity of the TC93 for another 5 (five) years, i.e., from February/2022 to February/2027. This was an alternative mechanism coordinated by PAHO Brasil and the Ministry of Health, to facilitate the transfer of the Government's annual contributions, until the BIREME Headquarters Agreement is formalized in the country, which will

<table>
<thead>
<tr>
<th>Sources</th>
<th>Type of fund</th>
<th>Received in 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 PAHO HQ</td>
<td>ACP/ACW</td>
<td>1,340,000</td>
</tr>
<tr>
<td>2 Ministry of Health Brazil</td>
<td>PVC</td>
<td>875,823</td>
</tr>
<tr>
<td>3 WHO</td>
<td>OMS</td>
<td>200,000</td>
</tr>
<tr>
<td>4 Secretary of Health Development with Technical Areas -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Other Cost Centers</td>
<td>OCC</td>
<td>81,950</td>
</tr>
<tr>
<td>6 Balance of last Biennium</td>
<td>Outros</td>
<td>1,541,818</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>4,056,183</strong></td>
</tr>
</tbody>
</table>

1. PAHO Regular funds in 2022
2. TC93: Improvement of BIREME (TA2) and VHL Indigenous Health (TA4)
3. Emergencial funds for WHO Covid-19 database (WHO COVID DB)
4. SMS-SP
5. Regional: EIH, FPL, HSS
6. Balance of last Biennium: BSS, TC87 (FUNASA), TC91 (DECIT), TC95 (CGDI/SE/MS) and TC98 (MTCI/PICS)
allow the financial transfer directly from the regular budget of the Ministry of Health of Brazil, at the beginning of each year.

**TC93/TA2**

The Additive Term to Term of Cooperation 93, que is directed to the "Development and Improvement of the Latin American and Caribbean Center for Information on Health Sciences in the context of Information and Knowledge Management in the 2030 Agenda and Universal Health" in particular for the strengthening, improvement and implementation of its program of technical cooperation and institutional sustainability as a Specialized Center of PAHO/WHO in scientific and technical information in health..

**TC95/TA6**

The VI Additive Term to the 95th Technical Cooperation Term (TA6/TC95) between the Ministry of Health of Brazil and Brazil’s Office of the Pan American Health Organization/World Health Organization (PAHO/WHO Brazil) is oriented to the Improvement of the Management of the Executive Secretariat of the Ministry of Health of Brazil. This TC has the participation of the technical areas of PAHO Brazil and BIREME/PAHO/WHO, which cooperates specifically with a result related to the management of information and scientific and technical communication in health, more specifically in the context of the information sources of the VHL and the national network of libraries that contribute to the Brazil VHL, libraries of the BiblioSUS network, thematic Virtual Health Libraries such as the Primary Health Care VHL and institutional VHL, such as the Ministry of Health VHL. Moreover, it includes components that aim to expand bibliographic control and improve the quality of the description of scientific and technical output in Brazil and expand access and use of scientific knowledge within the Unified Health System (SUS) through products of knowledge translation. In summary, it is about bringing clinical practice closer to knowledge and scientific evidence generated through academic research for the continuous improvement of health services.
Funding for the Biennial Work Plan (BWP) BIREME 2022-2023 relies on regular contributions from its main institutional partners and non-regular contributions from regional technical cooperation projects under the PAHO/WHO Brazil Cooperation Terms in the country. These projects also result in products and services for use in countries in the region. PAHO/WHO and the Brazilian Ministry of Health maintained their contributions to the improvement and technical cooperation of BIREME. From the affiliation of new members, as established in the BIREME Statute, the funding sources may be diversified. At the same time, BIREME needs to continue mobilizing efforts to expand its funding sources through projects, Agreements and services, as provided for in its proposal for a Resource Mobilization Plan to ensure the financial sustainability of the Center.

Other entities with which BIREME maintains a close relationship and with which specific projects are maintained are the Municipal Health Department of São Paulo, the Oswaldo Cruz Foundation (FIOCRUZ), the National Commission of Health Secretaries (CONASS), the National of Municipal Health Secretaries (CONASEMS), the National Health Council (CNS) and the National Health Foundation (FUNASA), among others. Some of the projects carried out are within the scope of the TCs that PAHO Brasil maintains with the Ministry of Health, such as the TC60 (CONASS), TC68 (CNS), TC91 (DECIT) and TC98 (TCIM/ICHP and Nutrition).

It should be highlighted the strengthening of BIREME’s institutional relationship with the WHO (World Health Organization), in the context of its alliances and global actions, especially with projects in coordination with the Libraries and Digital Information Networks Unit at WHO Headquarters, based on "COVID-19 - Global Literature on Coronavirus Disease" and the Global Index Medicus (GIM) for countries in WHO Regions.
3. Human Resources and cooperative work

BIREME’s intellectual capital continues to be made up of professionals with experience in information management, the development of methodologies and technologies for the management of scientific and technical information, and an administrative infrastructure that includes information technology and management infrastructure. Two link categories characterize the personnel contracts: PAHO/WHO (2 collaborators) and HSP/SPDM (36 collaborators).

The Center maintains its Personnel Plan in line with the PAHO/WHO strategic planning, also considering policies, procedures, and internal controls to ensure institutional alignment with transparency and the commitment of all its personnel. In this sense, the availability of more than 55 consultants and specialists who, under the leadership of the BIREME team, also support the development of projects, products, and information services.

Something that highlights BIREME is the cooperative work through networks of individuals and institutions for the management and exchange of information and knowledge present in 30 countries with more than 2,000 institutions. This networking offers flexibility in expanding and adding new members, as well as exchanging ideas, experiences, and knowledge.

In 2022, even with the global pandemic of COVID-19, work with human resources continued to be a priority for BIREME, and in this sense, frequent virtual meetings and institutional communication actions were held to contribute to well-being and teamwork and a strengthened organizational climate.
Although BIREME has a small work team, it is strengthened thanks to its work strategy with networks of cooperating centers of LILACS and Executive Report – VII Session of the Scientific Committee of BIREME – September 30, 2021 | p.36 VHL, Network of Referees, thematic networks such as Nursing, Traditional, Complementary and Integrative Medicine and also the alliances that it maintains, such as those already historical with the US National Library of Medicine (NLM), Biblioteca Central de la Facultad de Medicina de la Universidad de Chile, the Biblioteca Nacional de Ciencias de la Salud (BCNS) of the Instituto de Salud Carlos III (ISCIII) del Ministerio de Economía y Competitividad de España, Université de Rouen, France, the Institut National de la Santé et Recherche Médicale (INSERM), France, Epistemonikos, FELSOCEM and new ones such as those of the Academy of Integrative Health & Medicine (AIHM), among others. PAHO/WHO collaborating centers such as INFOMED/Cuba, Fiocruz, Instituto Lauro de Souza Lima, Brazil, Hospital Italiano de Buenos Aires, Argentina, Centro Universitario de Farmacología (CUFAR) / Argentina, and Gerencia de Medicina Complementaria del Seguro Social de Salud (EsSalud)/Perú also contribute to the development of collaborative products and services.
4. CRICS - Regional Congress on Health Science Information

The CRICS11 and VHL8 events (in person or virtual) should take place in 2023, as their realization was conditioned to the availability of financial resources and also to the global pandemic of COVID-19. CRICS10 and VHL7 took place in December/2018.

CRICS, since its first edition in 1992, is one of the most important and consolidated international conferences in scientific and technical information and periodically addresses the state of the art in the fields of information, knowledge, and management of scientific evidence. It includes topics of scientific communication, librarianship, information sciences, methodologies and information technologies and their application in national research, education, and health systems.

The VHL Regional Coordination Meeting, which is the most important forum for the exchange of the VHL cooperation network, is held as a preliminary event to CRICS and analyzes the state of development of the VHL at regional, national, thematic, and institutional levels.

Both events are coordinated by BIREME in cooperation with national and local institutions in the host countries. CRICS10 and VHL7 were held in December 2018. Due to the unavailability of resources and the COVID-19 pandemic, CRICS11 and VHL8 should occur during the 2024-2025 biennium. These events would be an opportunity for exchange with the scientific community of all the advances built with our collaborative networks.
5. Concluding Remarks

The progress of BIREME’s operation is evidenced by the elements that distinguish it, such as its ability to:

- Interacting with networks of institutions and health professionals, which remained active even in teleworking conditions;
- Effectively supporting to increase the visibility of the scientific output of LA&C;
- Maintaining updated the DeCS, the controlled and structured vocabulary using health terms in four languages and following international standards;
- Generating open access and open software methodologies and technologies;
- Developing local capacities for the access, production, and management of information;
- Contributing to projects at the global, regional, subregional, and national levels;
- Its ability to maintain the progress of its work plan even in emergency situations such as the COVID-19 pandemic and the public health emergency by monkeypox.

BIREME, as a PAHO/WHO reference center for scientific and technical information and communication, ensures the countries of the region continuity of governance, development, operation and innovation of products, services, events, information systems, methodologies, and technologies. of scientific and technical information in accordance with the international state of the art. It contributes systematically and efficiently to support, strengthen, and improve the capacities and infrastructure of scientific and technical information and communication in the Region.

The year 2022 continued to be marked by the observation and monitoring of epidemiological indicators due to the global pandemic of COVID-19, and even though BIREME continued to operate in telework, achieving results, which, as in the previous biennium, were planned in its work plan. biennial 2022-2023 and considering the recommendations of the PAHO/WHO and its governance committees.
ANNEX 1 - BIREME’s Products and services

REASONS TO USE BIREME’S PRODUCTS AND SERVICES

- BIREME has more than 50 years of tradition, knowledge, and experience in health science information management.
- It is a not-for-profit specialized international Center, which aims to improve the health of the people of the Americas.
- It is part of PAHO/WHO, the oldest international health organization in the world.
- It has solid partnerships with government and academic institutions.
- It offers innovative information products and services that follow international standards and state-of-the-art information methodologies and technologies.
- Provides access to up-to-date, reliable, and relevant content.

WHAT ARE BIREME’S PRODUCTS AND SERVICES?

VHL – Virtual Health Library
The VHL facilitates access and provides visibility to a wide collection of health information sources through Regional, National and Thematic Portals (Instances) that apply the VHL Model of health information management. [https://bvsalud.org/](https://bvsalud.org/)

LILACS - Latin American and Caribbean Literature on Health Sciences
The main and most wide-ranging database of scientific and technical literature in health published in LA&C countries. It indexes journals, books, theses, technical reports, and other types of documents. [http://lilacs.bvsalud.org/](http://lilacs.bvsalud.org/)

Health Science Descriptors (DeCS/MeSH)
A thesaurus of Health Science Terminology in Portuguese, Spanish, English and French. [https://decs.bvsalud.org](https://decs.bvsalud.org)

DeCS Finder
Automatically locates any DeCS / MeSH controlled vocabulary descriptor, synonym, or qualifier for a given text. [https://decsfinder.bvsalud.org/dmfs](https://decsfinder.bvsalud.org/dmfs)
Global Index Medicus (GIM)
Biomedical and public health literature produced by and within low-middle income countries. https://www.globalindexmedicus.net/

VHL Network
Libraries that apply the VHL Model for the development of VHL Instances (Portals) in a country, region, thematic area or institution. http://red.bvsalud.org/

MyVHL
Custom service for organizing and storing documents according to the user’s profile and area of interest, available on the web and as a mobile app. https://platserv.bvsalud.org/

e-BluelInfo
Mobile app that provides health practice information for health professionals at the palm of their hands. http://e-blueinfo.bvsalud.org

Windows of Knowledge
A service that brings together, organizes, and highlights selected information from the VHL and other sources of information, which are relevant for priority health issues. https://bvsalud.org/vitrinas

Evidence Map
Graphical representation of the evidence that exists in a particular area, classified by types of evaluated interventions and measured results. It has a dual function: to synthesize the available evidence and to identify knowledge gaps. https://mtci.bvsalud.org/mapas-de-evidencia/

PIE
Collection of documents that contribute to policy decision-making processes, based on the best available scientific evidence. https://sites.bvsalud.org/pie/pt/biblio

BIGG
International database of guides, protocols and clinical guidelines that apply the GRADE system for evidence assessment. https://sites.bvsalud.org/bigg
VHL InfoButton
Service that recovers scientific evidence that is available in the VHL related to the context of the patient's clinical history.

BRISA
Regional Base of Health Technology Assessment Reports of the Americas. https://sites.bvsalud.org/redetsa/brisa

LEYES
Health legislation in LA&C countries. https://sites.bvsalud.org/legislacion

REA
Open educational resources in health sciences. https://sites.bvsalud.org/rea/bireme

EVID@Easy
Tool for the guided search of evidence in the VHL to facilitate decision-making in health. https://bvsalud.org/evideasy/

IM (Impact Measurement)
Platform for the publication of users’ opinion polls personalized to the different types of website pages.

In person and online courses
Training opportunities in information management, knowledge m information and scholarly communication in health, through management, access and use of person courses and online courses available in the Virtual Campus for Public Health https://www.campusvirtualsp.org/

CRICS
Regional Congress on Health Sciences Information. https://www.crics10.org/
ANNEX 2 - Main events in which BIREME has participated in 2022

- Lançamento mapas de evidências PICS, 13 de dezembro de 2022.
- Reproduibilidade de Dados de Pesquisa no I Simpósio Gestão da Qualidade – Fiocruz, 29 e 30 de novembro de 2022
- Plagio e Ética em pesquisa - Palestra PUC São Paulo, 22 de novembro de 2022
- 13º Congresso Brasileiro de Saúde Coletiva, em Salvador, Bahia, de 19 e 24 de novembro de 2022.
- Participação na 6ª Conferência Nacional de Saúde Indígena em Brasília, 14 a 18 de novembro de 2022.
- Avaliação por pares aberta - ABEC Meeting - 6 de outubro de 2022
- Ciência Aberta - III Jornada Acadêmica de Educação em Saúde Digital (III JAESD) 21 de outubro de 2022
- 1º Fórum Científico Multiprofissional & Jornada Anual Dermatológica do Instituto Lauro de Souza Lima, 06 de outubro de 2022.
- Infodemia y desinformación en la pandemia - organizado por el Foro América del Sur Covid-19 y ECHO, 8 de agosto de 2022.
- Visita DSEI Cuiabá para realizar estudo de usuário do projeto BVS Saúde Indígena, 01 a 04 de agosto de 2022.
- II Encontro da BVS SMS-SP com a Rede Municipal de atenção à Saúde, 27 de julho de 2022.
- XXXVI Congresso Nacional de Secretarias Municipais de Saúde - CONASEMS em Campo Grande, Mato Grosso do Sul, 12 a 15 de julho de 2022
- Evaluación de la Ciencia: Métricas de Impacto - webinar del programa Fortalecimiento de las Redes de Información en Salud de la BVS, 22 de junio de 2022.
- 1ª Reunión Nacional de la BVS Paraguay, 30 de junio de 2022.
- Ciência Aberta - webinar para pesquisadores e professores do Centro de Agravos em Doenças Tropicais Emergentes e Negligenciadas da UFPI, 20 de junho de 2022.
- Taller Acceso y uso de la información de salud: em la práctica – parte 2, 15 de junho de 2022.
- Webinar: Acceso y Uso de la Información en Salud – Nicarágua 08 e 15 de junho
- Lançamento Portal EVIPNET, 02 de junho
- “La ciencia abierta y el futuro de la comunicación científica”, webinar para la red BVS Nicaragua organizado por PAHO Nicaragua y UNAN Managua, 25 de maio de 2022.
- BVS Rede de Informação e Conhecimento da SES/SP promove lançamento de livro sobre fontes de informação em saúde, 13 de maio de 2022.
- Lanzamiento nuevo portal de la BVS Honduras, 12 de maio de 2022;
- Apresentação na 3ª semana de la BVS Colombia, y la 24ª Jornada Nacional de Actualización y Capacitación de Unidades de Información en Salud-UNIRECS en el 11 y 13 de mayo de 2022.
- Evaluación de la ciencia: índices de impacto - webinar para la red BVS Nicaragua organizado por PAHO Nicaragua y UNAN Managua, 11 de maio de 2022.
- Ética e integridad en la investigación - webinar para la red BVS Nicaragua organizado por PAHO Nicaragua y UNAN Managua, 20 de abril de 2022.
- Comunicação científica rumo à ciência aberta - palestra para pesquisadores do Instituto Butantan, 8 de abril de 2022.
- A importância do acesso aberto para as ciências da saúde - , aula para alunos de pós-graduação do ICT-UNESP de São José dos Campos, 16 de março de 2022.
- BIREME rumo à Ciência Aberta - webinar organizado pela Universidade Federal do Piauí-Rede UNA-SUS, 14 de março de 2022.
- Curso Acesso e Uso da Informação para SMS-SP, 23 de fevereiro.
ANNEX 3 - Measures implemented in BIREME premises to the operations of the Center

Following are the measures implemented in BIREME/PAHO/WHO during the emergency telework due to the COVID-19 global pandemic and also in preparation to return to premises in October/2022:

1. Permanent online and in presence assistance and close interchange of BIREME HRM personnel and the Center personnel either for professional and personnel reasons in coordination with HSP/SPDM and PAHO/WHO HR Departments
   a. Provided guidance and monitor COVID-19 prevention protocol: promoting sanitization rules; indicating occupancy limits and the mandatory use of masks, others;
   b. UN Vaccination Program: 20 HSP/SPDM personnel and dependents were vaccinated and received the “COVID-19 Vaccination Record”. It was a coordinated action among UNDP; IFC/World Bank; PAHO/WHO (HRM and PWR Brazil); and BIREME. The ones that do not participated in the UN Program participated in the National Vaccination Programs via SUS (Sistema Único de Saúde de Brasil). PMIS is updated with the vaccination status of BIREME’s personnel; and
   c. IT infrastructure and users support needs in close coordination including agenda scheduled ahead for specific issues.

2. Communication lines of action and forums for personnel awareness and interchange
   a. Weekly Internal Bulletin “Fique Por Dentro” sent via e-mail and WhatsApp. All the corresponding news are published and can be accessed in “Fique Por Dentro” Portal: https://fiquepordentro.bireme.org/
   b. “Café com Ideias” online that is the monthly meeting opportunity when the Center Director and Area Managers share the main activities, notices and recommendations
with the entire personnel that can also pose questions, doubts and suggestions. All the related documents such as presentations and monthly activities report of the Area Managers are also available to the personnel into BIREME SharePoint;

c. Institutional communication channels constantly updated; and
d. Operation of WhatsApp Groups (Critical Personnel; BIREME General; BIREME Managers; BIREME Areas).

3. Located in a commercial building the Center premises were fully adequate with COVID-19 prevention measures.
   a. installation of acrylic protection at front desk reception;
   b. sanitizing hand rub dispensers were available in the entire building such as entrances, hallways, and elevators. The dispensers were regularly refilled;
   c. signs and posters were displayed throughout the building on recommended general safety measures; promoting sanitization rules; indicating occupancy limits and the use of masks that were mandatory particularly when using the collective elevators; and
   d. information displays available on the stairs indicating the one-way direction (only up/only down).

4. Adequacy of the premises that are characterized as open/shared offices and meeting rooms also in compliance with distancing measures.
   o Periodic assessment of the prevention control measures implemented as it is still mandatory the use of masks in the Center’s premises;
   o The entire workplace is very well ventilated as the windows are opened very early in the morning and kept opened during the working day hours and furnished with:
- alcohol gel and sanitizing hand rub dispensers in the meeting rooms, pantries, common use equipment spaces, copiers, etc. The dispensers are regularly refilled; and
- fabric masks; disposable masks; and the use of face masks is mandatory as communicated via posters.

  o Signs and posters are displayed throughout the premises and workplace regarding recommended general safety measures; promoting handwashing; indicating occupancy limits for meeting rooms, warehouse, garages, pantries, and bathrooms; and
  o Increased the frequency of cleaning and disinfection of circulation areas and common areas (bathrooms, stair rails, reception, pantries, elevators, etc.); and it was increased the frequency of garbage collection in the restrooms.

5. Periodic maintenance and cleaning of physical facilities including official vehicles with the support of service providers, condominium staff and administration personnel, observing the safety protocols mentioned above.

6. Adequate and monitored IT infrastructure, including periodic visits to the Datacenter in Tamboré, where about 20 physical servers are located, configured to serve, via a virtualized environment, the products, and services of BIREME’s technical cooperation, in addition to the environments for application development and data processing for the information retrieval interfaces, totaling about 3TB of periodic backup.