

BIREME / PAHO / WHO
Latin American and Caribbean Center on Health Sciences Information

VHL Guide 2020

São Paulo – September 2020

Preparation, distribution and information:

Latin American and Caribbean Center on Health Sciences Information - BIREME/PAHO/WHO

Rua Vergueiro 1.759, 12° andar, Paraíso

CEP 04101-000 | São Paulo - SP, Brazil

<https://www.paho.org/bireme/>

Warning - The mention of specific companies and/or institutions or specific products does not imply these are being supported or recommended by BIREME/PAHO/WHO and does not mean there exists a preference vis-à-vis others with a similar nature, mentioned or otherwise.

VHL Guide 2020

Table of contents

1.About the VHL Guide	4
2 About the VHL	5
2.1 What is the VHL?	5
2.2 History of the VHL	5
2.3 The three pillars of the VHL	6
2.4 Forms of participating in and collaborating with the VHL	
2.5 Regional coordination of the VHL	8
3 The Instances of the VHL Network	9
3.1 What is an instance of the VHL Network?	9
3.3 How to develop an instance of the VHL Network	10
3.4 Maturity model for the VHL	12
4 Sources of Information	13
4.1 What are Sources of Information?	13
4.2 The operation of Sources of Information	14
4.3 Types of contents organized in the Sources of Information	14
4.4 The quality of Sources of Information	21
5 Products and Services Associated to the VHL	21
5.1 FI-Admin	21
5.2 Integrated search interface (IAHx)	22
5.3 Knowledge Showcases	22
5.4 e-BlueInfo	22
5.5 My VHL	22
5.6 Evidence Maps	23
6 Promotion and Dissemination of the VHL	23
6.1 Courses and Training	23
6.2 Participation in Events	23
6.3 Production and reporting of news	24
6.4 Carrying out studies and publications	24
6.5 Preparation of graphic products	24
References	25
Index	

1.About the VHL Guide

The **VHL Guide** is the publication that presents the foundations of the **Virtual Health Library (VHL)** as a model for health information management based on collaborative and networked work.

The VHL is coordinated and promoted by BIREME - Latin American and Caribbean Center on Health Sciences Information of the Pan American Health Organization/World Health Organization (BIREME/PAHO/WHO), whose model is applied in technical cooperation to cooperating organizations mainly from Latin American and Caribbean countries (LA&C), and extends to other regions and countries, such as Spain, Portugal, and Africa.

To whom it is addressed

The VHL Guide is intended for health information professionals and other related areas interested in learning how to participate and/or collaborate in the construction of the VHL.

The guide does not aim to provide guidance on specific methodologies and technologies for the construction of the sources of information of the VHL and its instances. In this case, we recommend consulting the respective operation manuals, indicated in this document.

KNOW MORE

The **VHL 2020 Guide** updates the previous versions of the VHL Guide:

VHL Guide 1999 - Prepared for the 1st Regional Coordination Meeting of the Virtual Health Library (VHL1), held at PAHO headquarters, in Washington D.C., on November 30, 1999.

VHL Guide 2001 - Prepared for the 2nd Regional Coordination Meeting of the Virtual Health Library (VHL2), held in Havana, Cuba, on April 23 and 24, 2001.

VHL Guide 2005 - Prepared for the 4th Regional Coordination Meeting of the Virtual Health Library (VHL4), held in Salvador, Brazil, on September 19 and 20, 2005.

VHL Guide 2011 - Prepared on the occasion of the 12 years of VHL evolution and launched in March 2011.

2 About the VHL

2.1 What is the VHL?

The Virtual Health Library (VHL) is an information management model based on collaborative and networked work, applied to the creation, organization and dissemination of information and scientific and technical evidence in the field of health, provided online for users to access through the VHL portals.

In this way, the VHL contributes to facilitate and promote broad access to scientific and technical information on health according to this model (VHL Model).

VHL Mission

→ To offer access to information and scientific evidence in health to users throughout the entire spectrum of health sectors, contributing to close the gap between knowledge and practice in countries of Latin America and the Caribbean.

2.2 History of the VHL

The VHL is the result of the evolution of technical cooperation in health sciences information conducted by BIREME/PAHO/WHO since its creation, when it developed the essential functions of the Regional Biomedical Library, promoting the access to scientific and technical information, as well as the shared use of collections and services among libraries.

The collaboration of libraries to develop and offer information products and services was the strategy adopted by BIREME since its creation in 1967. The first collaborative service was the bibliographic commutation (supply of copies of documents). The first BIREME cooperation agreements with libraries were established in the early 1970s, and with the creation of LILACS, the network expanded to all countries of the region through cooperative libraries and coordinating centers.

At the end of the 1970's, this model expanded, adding to the library the function of information and indexing center, when BIREME took over the coordination of the bibliographic control of scientific and technical health literature in LA&C. This action was determinant to start the movement of systematic promotion of regional and international visibility of the scientific and technical production in health in the region. In 1982, this network became the Latin American and Caribbean System of Health Sciences Information, coordinated by BIREME.

In the late 1980's, the functions of bibliographic control of scientific production and bibliographic search services began to be operated in a fully decentralized manner under the responsibility of cooperating organizations, strengthening national capacities in infrastructure and human resources for health information management.

From the 1990's on, with the expansion of Internet access, the model of information management and exchange of knowledge in health culminated in a new process of online operation of sources of information by cooperating organizations, allowing users' access to this data to be more agile. It is in this context the VHL was launched at the 4th Regional Congress on Health Sciences Information (CRICS4) held in San José, Costa Rica, in 1998, and approved by the LA&C countries through the Costa Rica Declaration "***Hacia la Biblioteca Virtual en Salud***" (Towards a Virtual Health Library).

With the emergence of the VHL as a model of strategy and information management based on decentralized, collaborative, and networked work, the name of the Latin American and Caribbean System on Health Sciences Information was gradually replaced by the Latin American and Caribbean Network on Health Sciences Information, or simply the VHL Network.

Learn more about the history of the VHL at: <http://red.bvsalud.org/modelo-bvs/pt/a-historia-da-bvs/>

2.3 The three pillars of the VHL

The VHL is made up of three pillars: the **institutions**, the **contents** (sources of information) and the **users**.



Figure 1: The three pillars of the VHL: the institutions, the contents, and the users

2.3.1 The Institutions

Based on the collaborative network model, with decentralized operation, the VHL is developed by institutions working in the field of health information, whether public, private, non-governmental organizations, government instances of management, research, teaching and/or health services. This network of institutions, also called the VHL Network, is one of the pillars of the VHL.

The institutions share the responsibility of producing the contents that are available at the VHL portals, counting on the work of information professionals who work in information centers, libraries, archives, documentation centers, evidence nuclei, among others.

As of 2019, autonomous health information professionals became part of the VHL Network as collaborators, expanding the scope of the network beyond the institutions.

By being part of the VHL Network, the institutions and information professionals expand the visibility of scientific production, promote equitable access to information, develop capacities for information management and promote the exchange of knowledge among their peers, in addition to collaborating to consolidate the VHL as a public good of reference for information and knowledge in the field of health in the LA&C Region.

KNOW MORE

The VHL Directory provides information on each member of the VHL Institution Network. Access at: <https://bvsalud.org/centros/>

2.3.2 The Contents (sources of Information)

The contents generated, selected, and systematized by the network of institutions and information professionals make the second pillar of the VHL, being its driving force.

At the VHL, these contents, organized and made available to meet the information needs of users, are called **Sources of Information**. Sources of Information are represented by means of databases, directories, and catalogues.

Each type of source of information has its metadata structure for describing the content (the information) and ways of accessing the full text.

2.3.3 The Users

Being the *raison d'être* of any library or information service, users form the third pillar of the VHL, and are essential for the fulfillment of its mission. The users of the VHL are managers, researchers, students, clinical, teaching and health care professionals.

It is with a focus on users that the institutions responsible for the contents made available at the VHL work continuously to improve and promote their sources of information. Continuously, they promote studies that identify and anticipate information needs, establishing an open channel of communication with users.

2.4 Forms of participation and collaboration with the VHL

According to their capacities and interests, the institutions can take three different functions in the participation and collaboration with the VHL:

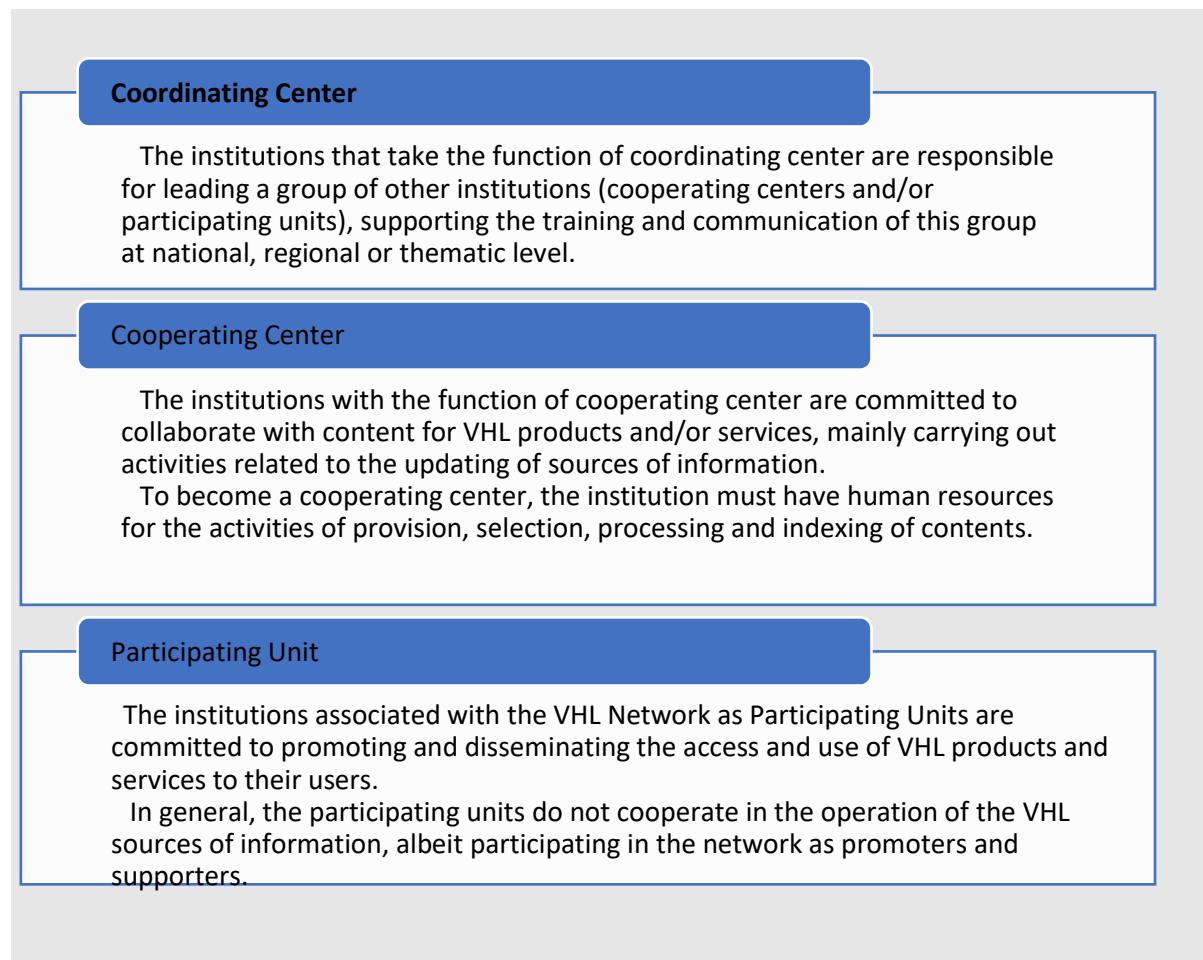


Figure 2: Functions of the institutions in participation and collaboration with the VHL

The participation of institutions in the network is formalized through a document of commitment and institutional justification, such as a term of membership, protocol of cooperation or even a meeting minute. Each country establishes the best instrument to formalize the participation of its institutions at the VHL Network.

The participation of autonomous information professionals at the VHL Network is voluntary, to collaborate with a service or source of information.

2.5 Regional coordination of the VHL

The VHL is promoted and coordinated regionally by BIREME/PAHO/WHO, which carries out technical cooperation activities in information management and scientific knowledge, aiming to strengthen and expand the flow of scientific information as an essential condition for health development.

To enable the management and operation of sources of information, the regional coordination of the VHL, exercised by BIREME, includes the following attributions:

- To develop methodologies and technologies for the management and operation of VHL sources and flows of information;
- To develop the conceptual model of the VHL;
- To promote the exchange between producers, intermediaries and users of health information at the VHL;
- To offer technical cooperation for the development of national capacities for the management and operation of the VHL;
- To operate the regional multilingual portal of the VHL <<http://bvshalud.org/>>, which integrates the sources of information of the VHL network by means of a search service designed to form the single regional index; and
- To promote and report the VHL, LILACS, DeCS and other products and services resulting from its technical cooperation.

The work of BIREME at the regional level is carried out through the VHL Network and other complementary networks, such as the Network of Referral Professionals, which brings together librarians specialized in developing strategies for searching information at the VHL; the Network of Indexers, which gathers librarians specialized in representing themes or content of a document, for its description and identification, and subsequent cataloguing of documents, according to the LILACS methodology; and the Network of Developers - RedDes, which brings together technology professionals dedicated to the development and support of tools and systems used by the VHL, among others.

2.5.1 VHL coordination meetings

The main regional meeting of coordination, exchange of information and experiences, evaluation, and recommendation for the development of the VHL is the **Regional Coordination Meeting of the VHL**, traditionally held in conjunction with the **Regional Congress on Health Sciences Information (CRICS)**. This event is coordinated by BIREME with the main objective of evaluating actions and defining strategic objectives for the future. At each event, its participants write a declaration reiterating the commitments made before the VHL, aimed to encourage the participation of society in its development to favor dissemination of scientific and technical information on health.

In addition to this conference, meetings are held to discuss technical, methodological and/or operational issues, aimed at groups of cooperating centers, librarians, network coordinators, developers, editors, etc.. The main objective of these meetings is to involve the network in discussions and actions to improve the collaboration and participation of the groups in the development and updating of VHL products and services.

The national or thematic network coordinating centers, in turn, also have the freedom and commitment to promote their own coordination meetings and technical meetings.

3 The Instances of the VHL Network

3.1 What is an instance of the VHL Network?

An instance of the VHL Network is an initiative developed by a group of institutions using the VHL information management model - the VHL Model. All the production, selection, organization, and systematization of content carried out by this group is materialized through a VHL Portal, which can be developed in different areas, such as **geographic, thematic, institutional** or others.

SUMMARIZING

A VHL instance is an initiative that follows the VHL Model to organize, systematize and disseminate information/knowledge/evidence in health in a certain thematic area and/or geographical context. Every VHL instance has its own portal, coordinated by an organization and collaboratively developed by a group of institutions.

3.3 How to develop a VHL Network instance

For the development of an instance of the VHL Network, it is initially necessary to:

- Define its main objectives;
- Define its scope, main subjects and related themes;
- Identify its target audience and their main information needs;
- Identify the institutions that have scientific production on the defined scope and structure a network of collaboration/governance structure;
- Define which contents and sources of information respond to the identified problems, and create and/or collaborate with these contents and sources of information to make up the collection of the VHL portal; and
- Develop the VHL portal to organize and provide the identified sources of information.

3.3.1 Governance structure

Once the institutions that will collaborate in the development of a VHL instance are mapped, they are organized following a pre-defined governance structure, taking different functions, namely:

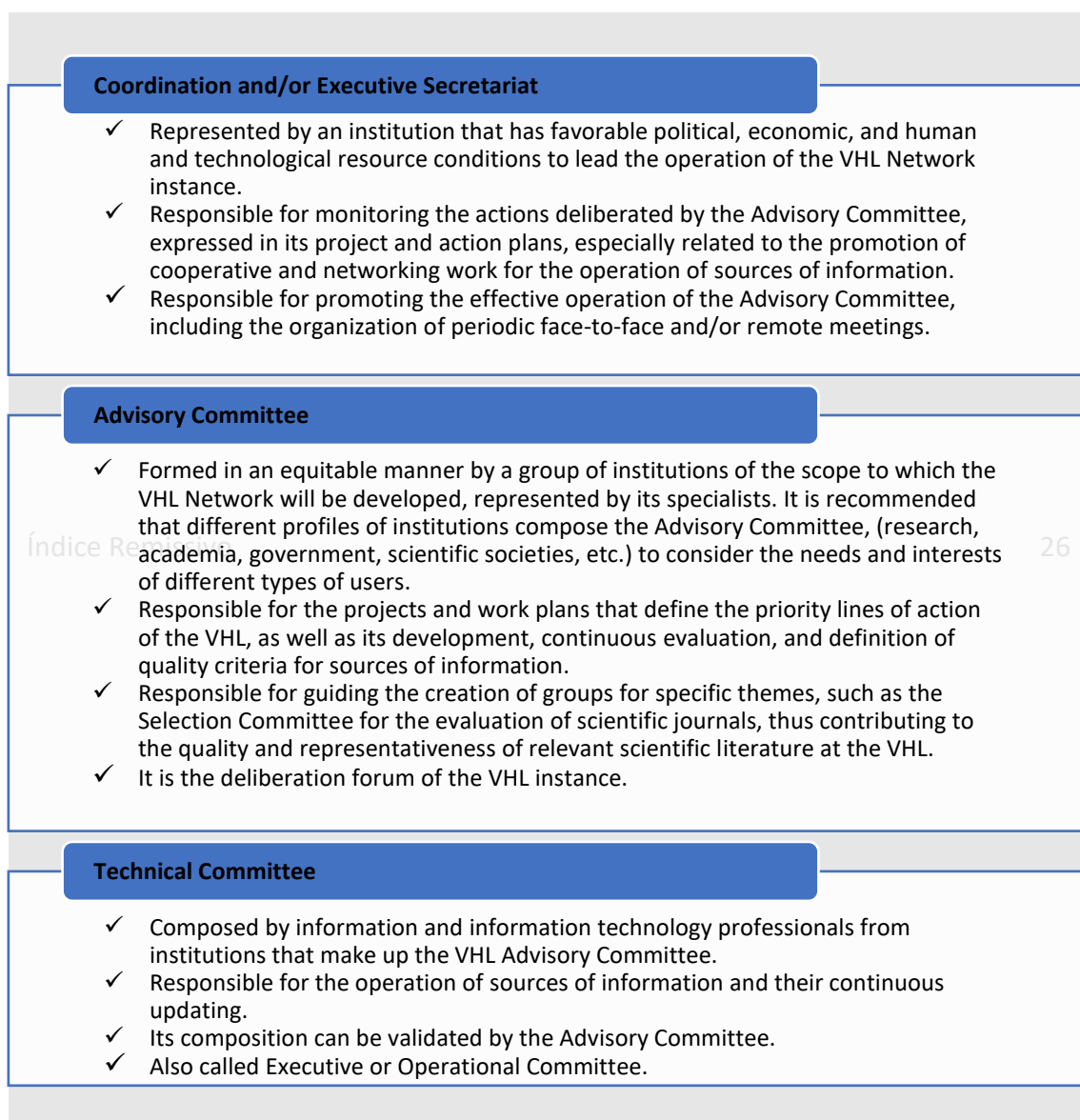


Figure 3: Governance structure for the VHL instances

3.3.2 Definition of the action plan

The representatives of the Advisory Committee, with the support of the Executive Secretariat, should develop an initial concept project and specific action plans to guide the activities of the VHL Network instance. In general, they include actions for maintaining and updating sources of information and the portal, communication and dissemination actions, inter-institutional technical cooperation activities, etc.. Projects should define priorities according to the needs and available resources, as well as the distribution of responsibilities and networking.

The planning, definition of scope, schedule, budget, execution, monitoring and closure of projects and/or action plans with documentation of the activities developed are important tools for strengthening the VHL, positioning it favorably in technical cooperation actions and funding opportunities with development agencies, ensuring and strengthening its sustainability.

3.3.3 Organization of cooperative and decentralized work

The responsibility for the management and operation of the collections of sources of information developed within the VHL Network instance is shared by the participating institutions. It is up to them to define their form of insertion and participation in the development of projects/action plans. The definition of these different roles is made explicit and consolidated in the Matrix of Responsibilities, a document that indicates the coordinating institution and the cooperating organizations of each source of information of the VHL Network instance.

3.3.4 Portal Development

The portals of the instances of the VHL Network give users the visibility of the contents organized in sources of information, as well as allow them to get to know the institutions responsible for the project and its management and organization mechanisms. In this way, they reflect and express the accomplishment of a work aligned with the three pillars of the VHL.

The development of a portal is based on standards that aim to allow the integrality and convergence of the communication of the instances with each other, from them to the regional portal of the VHL and its users. These standards are applied to the different elements that make up a portal: information architecture (navigation structure and organization of sources of information), accessibility standards (access by the largest possible number of people, regardless of their physical conditions), interface design (formatting the contents for different access devices), visual programming and the technology to be implemented.

3.4 VHL maturity model

The VHL's maturity model is a way of evaluating the instances of the VHL Network in the adoption of methodologies, technologies and good practices recommended in this guide. This model defines a structure of evolution at successive levels, the passage of which is necessary to reach full maturity in the adoption of the VHL Model.

The instances of the VHL can be classified into four different levels of maturity:

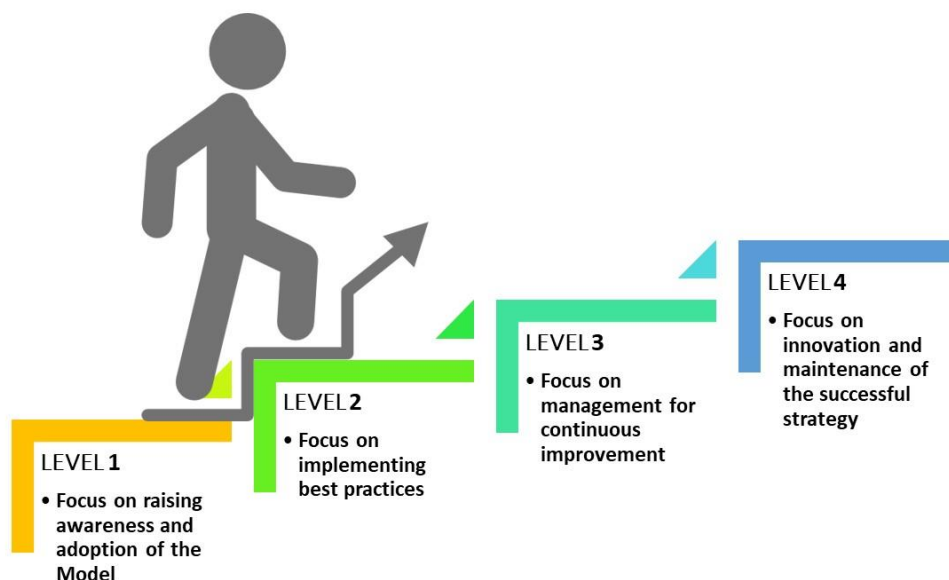


Figure 4: VHL Maturity levels

The definition of the level of maturity is done through a self-assessment process. Periodically, the coordinating institutions of the VHL instances are invited by BIREME (VHL Network regional coordinator) to perform this activity, where aspects related to governance, organization and updating of contents, technological platforms used are observed. As a result of this process:

- The coordinators of the instances of the VHL can identify the quality level of their structures, as well as aspects that should be developed in search of continuous improvement; and
- BIREME receives development indicators from the Network that subsidize its regional coordination activities of the VHL and technical cooperation in management information and scientific knowledge.

KNOW MORE

About the Maturity Model for the VHL. Visit:

<http://red.bvsalud.org/modelo-bvs/pt/modelo-de-maturidade/>

4 Sources of Information

4.1 What are Sources of Information?

At the VHL, the contents are organized as shelves in a library, grouping in collections different resources according to their characteristics: scientific and technical literature, journals, legislation, etc.. Each one of these collections at the VHL is called Source of Information.

The scope of the sources of information at the VHL extends the composition of the traditional collections of libraries, allowing the inclusion and exchange of scientific literature with collections of other natures, such as the full texts of scientific evidence in the form of systematic reviews, technological assessments, multimedia, learning objects, and factual information, such as events and news.

Sources of Information are represented through databases, directories and catalogues. They should be created according to the information demands and needs of the users - or the target audience of the VHL.

4.2 The operation of Sources of Information

Sources of information are produced and operated in a decentralized and online manner, which enhances their visibility and accessibility, promotes cooperation between institutions and avoids duplication of work. For this purpose, they are created, organized, and operated according to pre-defined methodologies. At the VHL, each type of source of information has its own methodology, which includes manuals, guides and systems that facilitate its implementation.

The development of the methodologies and systems is performed by BIREME with the collaboration of the VHL Network. The adoption of international standards and norms widely adopted in its areas are recommended, as well as the use of open-source tools following standards of information architecture, accessibility and responsiveness. The sharing of flows and processes in the use of methodologies and technologies within the VHL values the transparency of interactions among all participants in the network and strengthens the concept of interoperability in the management of sources of information.

In the instances of the VHL Network it is recommended that each source of information be coordinated by an institution, according to the matrix of responsibilities. The coordinating institution is responsible for the integrity of this source of information following the corresponding methodology.

4.3 Types of content organized in the Sources of Information

The adoption of a form of standardized content organization in Sources of Information creates a common language that facilitates the identification, operation, retrieval of these resources in different instances of the VHL Network.

The following describes the forms of organization of the different types of content in VHL Sources of Information. In addition to their main characteristics, links to more information on the methodologies and technologies associated with them are also indicated.

4.3.1 Scientific and Technical Publications (bibliographic databases)

At the VHL, scientific and technical publications are organized in databases used for the bibliographic control of the scientific and technical production on health of the LA&C countries. The bibliographic databases are composed of references of several types of documents, such as journal articles, books, theses, papers presented at scientific events, technical and scientific reports, projects, and other non-conventional documents.

LILACS - Latin American and Caribbean Health Sciences Literature is the main database of scientific and technical production in the field of health published in Latin American and Caribbean countries, as well as the main source of information for the VHL. LILACS is coordinated by BIREME and has the collaboration of the cooperating centers that integrate LILACS Network.

Moreover, the institutions of the VHL Network can, in a decentralized manner, create specialized databases on topics of interest to the field of health. These databases not only use the LILACS Methodology but also complement the LILACS database. In these cases, the coordinating institution of the database is responsible for defining the scope of the database, establishing the operation flows and updating.

LILACS and other bibliographic databases of the VHL are operated through a system of Administration of VHL Sources of Information (FI-Admin) using the LILACS Methodology.

KNOW MORE

About the LILACS Methodology: <http://red.bvsalud.org/lilacs/pt/>

LILACS Portal: <http://lilacs.bvsalud.org/>

4.3.2 Journal Collections

Data on the scientific journals and collections of journals in the Network libraries are made available at the VHL through the source of information **Portal of Scientific Journals of Health Sciences**, which registers and organizes collections of serial publications, allowing the creation of a collective catalogue of the VHL Network libraries. This catalogue contains the bibliographic description of journal titles (title, ISSN, publisher, city, periodicity, etc.), and information on the availability and access to the full text in electronic format of the journals, contributing to the visibility and access to the full texts of the articles, in addition to promoting the rationalization of resources among the entire Network.

KNOW MORE

About the Portal of Scientific Journals of Health, access:
<http://red.bvsalud.org/seriados-em-ciencias-da-saude/>

4.3.3 Events

Scientific events such as congresses, seminars, conferences, and symposia are registered in the **Health Sciences Events Directory**. The main objective of this source of information is to report scientific events in the field of health, presenting basic information about them to promote the exchange of knowledge among professionals and specialists on updated themes and ongoing research.

The VHL Events Directory is operated through the FI-Admin system and the DirEve methodology.

KNOW MORE

About the DirEve Methodology, visit:

<http://red.bvsalud.org/direve-diretorio-de-eventos-em-ciencias-da-saude/>

4.3.4 Legislation

The Legislation at the VHL is provided in a source of information called **LEYES - Latin American and Caribbean Basic Health Legislation**. LEYES is a regional thematic database produced in a network by institutions in the areas of legislation and health that contains the references of the legislation in health and may also contain the full text or link to it.

KNOW MORE

The LEYES database is operated by means of an FI-Admin application, from the LeisRef methodology and data interoperability processes.

Regarding the LeisRef Methodology, visit: <http://red.bvsalud.org/leyes-legislacao-em-saude/>

4.3.5 Questions and Answers

Contents such as Questions and Answers (known by the acronym FAQs, Frequently Asked Questions) are registered at the VHL following the model of the source of information originated from the *Programa Telessaúde Brasil Redes*, called **Formative Second Opinion - SOF**. Currently, this source is exclusive for Primary Health Care (PHC) themes, in Portuguese, and contextualized to the Brazilian Unified Health System (SUS).

The questions are questions from family health teams, which were previously answered based on the best evidence, by the Teleconsulting service of the *Programa Telessaúde Brasil Redes*. The answers are adapted and formatted as a source of information, based on teleconsultations selected for their relevance and pertinence to PHC topics in SUS.

KNOW MORE

The SOF is available at the instance VHL APS do Brazil < <https://aps.bvs.br/> > and integrated to the regional VHL index.

About the SOF, visit: <https://aps.bvs.br/segunda-opiniao-formativa/>

4.3.6 Educational Resources

At the VHL, the educational materials and contents, such as courses (complete or in part), support materials, software (for the creation, registration, and organization of educational resources and for the development of online learning communities), and implementation resources, like intellectual property licenses, among others, are provided at the VHL through **Educational Resources Repositories**.

From the production and organization of this type of content by the LA&C countries, they are gathered and offered, freely and openly, at the portal of the Open Educational Resources Repository Network CVSP/BVS, available at <https://sites.bvsalud.org/rea/>.

KNOW MORE

About this initiative, visit: <http://red.bvsalud.org/recursos-educacionais/>

4.3.7 Internet Resources

Internet resources, such as websites, portals, blogs, databases, repositories, and other types of resources with information on health are organized in a catalogue called **LIS - Health Information Locator**.

The main objective of LIS is to provide quick visibility and access to scientific, technical, and factual information on Internet resources. With content evaluated according to quality criteria, the LIS complements the flow of scientific communication with non-conventional materials, which are generally not published in scientific communication channels or should only be published after a validation period.

KNOW MORE

The LIS at the VHL is operated through the FI-Admin system and the LIS Methodology. For further information, visit: <http://red.bvsalud.org/lis-localizador-de-informacao-em-saude/>

4.3.8 Multimedia Resources

Images, videos, and presentations published on the Internet and freely accessible produced by the VHL network and/or on themes that make up the scope of the VHL activities are offered at the VHL through the source of information Multimedia Resources Catalogue. The Multimedia methodology is an adaptation of the LILACS Methodology with fewer fields and unfolded others to provide a better description of the specific characteristics of this type of publication.

KNOW MORE

The multimedia resources are registered through the FI-Admin system and the Multimedia for Wordpress plug-in, using the LILACS Methodology.

For further information please visit: <http://red.bvsalud.org/es/multimedia/>

4.3.9 Reports of Experiences

Testimonials, reports of relevant situations and cases that can serve as reference and lessons learned for managers and health professionals are made available at the VHL through the source of information Reports of Experiences. Through this, it is possible to provide and integrate different formats of complementary narratives: a main text that contextualizes the central axis in question, videos of testimonials from managers who share their experience at the head of the project, photos and a content selected to go more in-depth into the material.

KNOW MORE

For additional information, visit: <http://red.bvsalud.org/relatos-de-experiencias/>

4.3.10 Search Strategies

Bibliographic search strategies contribute to the development of systematic reviews, definition of health policies, situation analysis, production of evidence maps, infometrics, definition of thematic structure for a VHL Network Instance, construction of research filters, among other applications.

For this reason, search strategies prepared by specialists for the retrieval of information on different themes at the VHL and other sources of information are made available in the Repository of Search Strategies <https://bvsalud.org/queries>. This repository has the following objectives:

- To give visibility to the search strategies elaborated by the VHL Referral Professionals Network, in different health themes;
- To enable the reuse of searches by different audiences, in different places and contexts; and
- To promote the cooperation and contribution among members of the VHL network, associated networks, and specialists for the updating of published search strategies, and the publication of new strategies in different information contents.

KNOW MORE

About Search Strategies as an information resource at the VHL:

<http://red.bvsalud.org/refnet/>

4.3.11 Terminology and Controlled Vocabulary

Terminologies and controlled vocabularies at the VHL have the role of defining a common language for content description and retrieval. **DeCS - Health Sciences Descriptors** is the main controlled vocabulary of the VHL, and was created by BIREME to serve as a unique language for indexing scientific journal articles, books, congress proceedings, technical reports, and other types of materials, as well as to be used in the search and retrieval of scientific literature subjects in the sources of information available at the VHL. The concepts that comprise the DeCS are organized in a hierarchical structure that allows the execution of research in broader or more specific terms, or all the terms that belong to the hierarchical structure.

Furthermore, instances of the VHL Network can also develop terminological instruments, such as glossaries, thesauruses, and controlled vocabularies.

KNOW MORE

About DeCS, visit: <http://decs.bvsalud.org/>

4.3.12 Sources of Information: summary chart

The chart below summarizes the sources of information of the VHL, its methodologies and associated systems, as well as types of content contemplated in these.

Table 1: Types of content and their respective sources of information at the VHL

Name of Source of Information	Name of Methodology	Content Management System	Resource for Search Interface	Type of Content
LILACS and other regional, national, and thematic bibliographic databases	LILACS	FI-Admin	iahX bibliographic-wp-plugin	Scientific and Technical Publications → Reference data from books, journals, articles, grey literature, etc., with the possibility to access the full text, when available)
Portal of Scientific Journals in Health Sciences	SeCS	FI-Admin	<i>Own Interface</i>	Journal Collections → Bibliographical description of the journals with information on availability and form of access to the full text
Directory of Events	DirEve	FI-Admin	<i>direve-wp-plugin</i>	Events → Basic information on congresses, seminars, conferences, etc.
LEYES – Latin American and the Caribbean Basic Health Legislation	LeisRef	FI-Admin	iahx leisref-wp-plugin	Legislation → References in health legislation
SOF – Formative Second Opinion	SOF	FI-Admin Wordpress	iahX bibliographic-wp-plugin	Questions and Answers → Primary Health Care
Educational Resources Repository	Educational Resources	FI-Admin	oer-wp-plugin	Educational Resources → Educational content, such as courses and support material; tools such as for creation, registration and organization of educational resources and online learning communities; etc.
LIS – Health Information Locator	LIS	FI-Admin	lis-wp-plugin	Internet Resources → Sites, applications, social networks, knowledge showcases, image banks, infographics, among other internet resources

Multimedia Resources Catalogue	Multimedia	FI-Admin	fi-multimedia-wp-plugin	Multimedia Resources → Videos, images, animations, presentations and audios, among others access resources published on the i
Reports of Experiences	Reports of Experiences	Wordpress	<i>Own interface</i>	Reports of Experiences → Testimonials, report of situation relevant cases and lessons learned
Search Strategies Repository	RefNet	Wordpress	<i>Own interface</i>	→ Search strategies in sources of information at the VHL
DeCS – Health Sciences Descriptors	<i>DeCS</i>	FI-Admin	<i>Own interface</i>	→ Controlled trilingual vocabulary health sciences

4.4 Quality of Sources of Information

The VHL, as a mechanism for the development of health through equitable access to information and scientific and technical knowledge, makes an absolute commitment to the search for quality and reliability. The reach and maintenance of this quality standard is guaranteed by the adoption of policies, criteria, and procedures for the production of each different type of source of information.

As a characteristic product of science, scientific publications have internationally consolidated criteria for quality assurance and control. These criteria include peer reviews, editorial boards, regularity of publication, periodicity, among others. However, there are publications contained in the VHL sources of information that are not submitted to these criteria, which does not mean that they have inferior quality. Oftentimes, these publications dispense with this evaluation process because they are institutional documents, such as reports, briefings, etc.. Among the variables considered in the evaluation of these publications are the institutional linkage of the document, its indexing in national and international databases, reliability and significance of the published data, etc..

Aiming to contribute to improving quality of publications and scientific journals of the Latin American and Caribbean region, one of the lines of action of the regional coordination of the VHL Network is the training of editors and others involved in the editorial flow on all the stages and best practices related to management of scientific and technical journals, from submission of articles to their final publication.

5 Products and Services Associated with the VHL

5.1 FI-Admin

FI-Admin is the system for Management of Sources of Information of the VHL.

FI-Admin has the functions of bibliographic description and indexing of different types of content, such as journal articles, monographs, theses and dissertations, videos, events, internet sites and legislation. Using this system, it is possible to manage the following sources of information:

- LILACS and other regional, national and thematic bibliographic databases;
- LIS - Health Information Locator;
- DirEve - Events Directory;
- Multimedia resources;
- LEYES - Latin American and the Caribbean Basic Health Legislation;
- Educational Resources; and
- Portal for Scientific Journals in Health Sciences.

IMPORTANT

The FI-Admin replaces some systems previously used, such as LILDBI-Web, LIS, DirEve, LILACS-Express Editor and the TITLE base for Scientific Journals in Health Sciences.

Additional information at: <http://red.bvsalud.org/fi-admin-pt/>

5.2 Integrated search interface (IAHx)

VHL search service with multi-language interface, which retrieves in an integrated way the content of different sources of information. It offers resources for the refinement of search results by means of filters (clusters) and search by DeCS/MeSH navigation, among other resources.

KNOW MORE

at: <http://red.bvsalud.org/interfaces-de-pesquisa-da-bvs/>

5.3 Knowledge Showcases

The Knowledge Showcases are a VHL resource that seeks to highlight selected documents and information resources on a relevant health theme. It has the same function as a showcase itself,

drawing attention to a selected and representative set of contents related to a theme, and may or may not be associated to an instance of the VHL Network Portal.

The Showcases of Knowledge follow their own methodology, giving direct access to documents indexed in the sources of information of the VHL, links to pre-defined search strategies; external sources of information; websites and fundamental pages for the theme in question, or even, updated contents via RSS, such as blogs, epidemiological bulletins, and news. It also gives information in different formats, like videos, infographics, infometrics, or any other resource that enables the researcher to quickly and reliably access relevant information.

KNOW MORE

Regarding Knowledge Showcases access: <http://red.bvsalud.org/vitrines-do-conhecimento/>

5.4 e-BlueInfo

e-BlueInfo is an application for mobile devices that facilitates the access of Primary Health Care (PHC) professionals to a specific collection of documents of interest and relevance to a given target audience and/or health system. This collection, selected at the national level, is composed of resources from VHL sources of information.

KNOW MORE

Regarding e-BlueInfo: <https://e-blueinfo.bvsalud.org/>
<http://boletin.bireme.org/pt/2019/01/28/e-blueinfo-informacao-na-palma-da-mao/>

5.5 My VHL

My VHL is a service aimed at VHL users. It consists of a space that stores the information and preferences of the user, allowing them to create and store lists of selected documents, indicate topics of interest to receive alerts of new documents, history of searches made at the VHL, list of favorite links and the user's own publications.

KNOW MORE

My VHL <<https://platserv.bvsalud.org/>> is connected to the Regional VHL Portal.

Additional information at:

<http://boletin.bireme.org/pt/2017/08/30/minhabvs-um-produto-personalizado-de-informacao/>
<http://boletin.bireme.org/pt/2018/05/27/avancos-no-uso-e-desenvolvimento-da-minhabvs/>

5.6 Evidence Maps

Evidence Maps provide a visual overview of existing studies or reviews in an area or sub-area, in terms of the types of interventions evaluated and the results measured. The evidence is mapped and applied in a framework that graphically highlights gaps, where there are few or no review studies and where there is a concentration of studies.

The methodology for evidence mapping was adapted by BIREME based on the methodology of the International Initiative for Impact Evaluation - 3ie <<http://www.3ieimpact.org>>. The maps are developed based on infometric analysis - by type of review, by clinical application, by outcomes, among other parameters.

The main purposes of the Evidence Maps are:

- To give visibility to available scientific evidence;
- To identify research gaps (evidence) and redundancies (multiple studies of similar issues);
- To contribute to the establishment of research priorities in the area; and
- To facilitate the use of available evidence by managers and health care professionals.

KNOW MORE

About Evidence Maps at:

<http://red.bvsalud.org/mapasdeeevidencias-2/>

<https://www.youtube.com/watch?v=IBFBMceKWJQ>

6

6. Promotion and Dissemination of the VHL

The promotion and dissemination actions are considered an integral part of the development of the VHL. These actions position the VHL as an updated and reference space for access to information, knowledge, and scientific evidence, and make the target audience aware of the strategic importance of the VHL. They are also mechanisms to strengthen technical cooperation and expand partnerships with other networks.

The main lines of action in promoting and disseminating the VHL are presented below.

6.1 Courses and Training

Courses and training on the VHL are activities developed in partnership with the VHL Network in the face-to-face and online modes. These activities are directed to health and information professionals, in the geographic and thematic scope of the VHL.

The training fulfills the demand of countries and of the region for training and fosters the VHL in universities, research institutes, hospitals, secretariats, and other public agencies with a focus on health care and the training of professionals.

The training events from the VHL Network are disseminated at:
<http://red.bvsalud.org/eventos-rede-BVS>

6.2 Participation in Events

The promotion of the VHL in the main events in the field of health, librarianship and information science should be a constant activity. The participation in fairs, exhibitions, congresses, conferences, seminars, forums, workshops, among other types of events, are opportunities to demonstrate the sources of information and resources of the VHL, whether with the presentation of scientific-technical works or through stands in these events.

6.3 Production and reporting of news

The drafting and reporting of news about the VHL and its contents contributes to its promotion and expands the communication channels with users and potential partners. In this direction, several communication and social interaction functionalities and tools, such as newsletters, hotspots, blogs, social media, among others, should be considered.

6.4 Studies and publications

Publications such as books, guides, and reports systematically document and disseminate the work carried out within the VHL with producers, users, and intermediaries of health information.

Moreover, as the object of work with a large volume of information, technology and health professionals distributed in the VHL Network, the VHL is the target of a large number of pieces of research on its different facets. These studies feed back into the work plans of the VHL and its instances by indicating paths and solutions for the challenges encountered in its mission.

KNOW MORE

To know about the studies, publications and statements already made for an on the VHL visit: <http://red.bvsalud.org/modelo-bvs/pt/publicacoes-sobre-a-bvs/>

6.5 Preparation of graphic products

To support the above-mentioned action lines, the VHL makes use of different graphic products to visually communicate concepts, projects, products and services through pamphlets, banners, etc.. These products are made in a decentralized manner by the VHL's institution network using the materials available at: <https://logos.bireme.org/>.

REFERENCES

BIREME/OPAS/OMS. **Boletim BIREME/OPAS/OMS**. Available at: <<http://boletin.bireme.org/>>. Accessed on Oct 28, 2019.

BIREME/OPAS/OMS. **Guia BVS 2005**. Available at: <<http://red.bvsalud.org/modelo-bvs/pt/guia-da-bvs/>> Accessed on Oct 28, 2019.

BIREME/OPAS/OMS. **Guia BVS 2011**. Available at: <<http://red.bvsalud.org/modelo-bvs/pt/guia-da-bvs/>> Accessed on Oct 28, 2019.

BIREME/OPAS/OMS. **Portal da Rede BVS**. Available at: <<http://red.bvsalud.org/>>. Accessed on Oct 28, 2019.

Index

Advisory Committee	11
Associated networks	17
Associated networks	9
BIREME	4, 5, 8
Catalogue of multimedia resources	20
Catalogue of multimedia resources	17
Collection of journals	15
Cooperating Center	8
Coordinating Center	8
Coordination of Instances of the VHL Network	11
CRICS	9
DeCS	18, 20
Development of portals for instances of the VHL Network	12
DirEve	15
e-BlueInfo	22
Educational resources	16, 19
Educational Resources Repository	19
Educational Resources Repository	16
Evidence Maps	23
Executive Committee	11
Executive Secretariat	11
FAQs	16
FI-Admin	21
Formative Second Opinion	16
Governance at the VHL	8, 10, 13
Health Sciences Events Directory	15
History of VHL	5
IAHx	22
Instance of the VHL Network	9

Instance of the VHL Network	14, 18	
Integrated Search Interface	22	
Internet resources	16	
Knowledge Showcase	22	
Legislation	15, 19, 21	
LEYES	15, 19, 21	
LILACS	5, 15	
LILACS Network	15	
LIS	16, 20	
Matrix of Responsibilities	12	
Multimedia resources	17	
Multimedia resources	17, 20	
My VHL	22	
Network of Referral Professionals	9, 17	
Participating unit	8	
Portal of Scientific Journals in Health Sciences	15, 19, 21	
Promotion of the VHL	23	
Publications on the VHL	24	
Quality of sources of information	21	
Questions and answers	16	
REAs	16	
ReDDes	9	
Latin American and Caribbean Network of Health Science Information		6
Regional Congress on Health Sciences Information	6, 9	
Regional Coordination Meeting for the VHL	9	
Report of experiences	17, 20	
Scientific journals	15	
Search Strategies	17, 20	
Search Strategies Repository	17, 20	
SOF	16	
Sources of information	13, 19	

Specific projects of instances of the VHL Network	11
Sustainability of the VHL	6
Technical Committee	11
Terminologies	18
Types of sources of information	19
VHL action plan	11
VHL Events	9
VHL Network Directory	7
VHL Network Events	24
VHL Pillars	6
VHL user	7