

Title:

Data Sources for Drug Utilization Research in Latin American countries – a cross-national study: DASDUR-LATAM Study:

Running Title:

DASDUR-LATAM Study

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ABSTRACT

Purpose: Drug utilization research (DUR) contributes to inform policymaking and to strengthen health systems. The availability of data sources is the first step for conducting DUR. However, documents that systematize these data sources in Latin American (LatAm) countries are not known. We compiled the potential data sources for DUR in the LatAm region.

Methods: A network of DUR experts from nine LatAm countries was assembled and experts conducted: (i) a website search of the government, academic, and private health institutions; (ii) screening of eligible data sources, and (iii) liaising with national experts in Pharmacoepidemiology (via an on-line survey). The data sources were characterized by accessibility, geographic granularity, setting, sector of the data, sources and type of the data. Descriptive analyses were performed.

Results: We identified 124 data sources for DUR in nine LatAm countries. Thirty-seven (30%) of them were publicly and conveniently available; 90 (73%) were accessible with limitations, and 17 (14%) were not accessible or lacked clear rules for data access. From the 124 data sources, 76 (61%) were from public sector; 46 (37%) were from pharmacy records; 43 (35%) came from ambulatory settings and; 88 (71%) gave access to individual patient-level data.

Conclusions: Although multiple sources for DUR are available in LatAm countries, the accessibility is a major challenge. The procedures for accessing DUR data should be transparent, feasible, affordable and protocol-driven. This inventory could contribute to compare drug use between countries identifying potential medication-related problems that need further exploration.

KEY WORDS: drug utilization research; cross-national; Latin America; pharmacoepidemiology

KEY POINTS

- ✓ Although many countries have a reasonable amount of data sources for DUR, the lack of transparency to access them limits their use. Most of the data sources were created for administrative purposes in the last ten years to register and inform on the public health sector data.
- ✓ The most frequent sources were those originated from the pharmacy records that have individual-level data.
- ✓ From 9 Latin American countries (Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, Nicaragua, Peru, Uruguay), two (Ecuador and Nicaragua) did not have any publicly available information.
- ✓ Disproportionalities concerning the number of publications on DUR in the nine LatAm countries was found.

INTRODUCTION

Knowledge about patterns of drug use is crucial in the assessment of the risk-benefit and the decision-making process when selecting appropriate medications and their reimbursement.¹ Drug utilization research (DUR) is a multidisciplinary science that aims to describe and provide understanding on the use of medications in society using descriptive and analytical methods². One of basic requirements of DUR is the availability of reliable and representative data sources, including primary sources that contains data collected prospectively for a specific research objective, and secondary sources that are collected for non-research purposes.³

Cross-national comparisons (CNC) is an important type of DUR that measures the patterns, extent, and determinants of drug exposure between and within countries.³⁻⁵ The CNC studies require reliable and valid data sources with transparent and clear regulations to access the data.⁵

In Europe, several CNC initiatives (e.g., EuroMEDSTAT,⁶ EuroDURG,⁷ and PROTECT) started with the identification of publicly available data sources for use in subsequent studies.^{8,9} The first important attempt to conduct a CNC of drug use was focused on differences in the utilization of antibiotics among European countries in the ESAC project.¹⁰

In contrast with Europe, North America, and Asia only a few CNC studies on DUR have been carried out across Latin American (LatAm) countries.¹¹⁻¹⁴ The lack of comparable data sources might be a possible explanation for the gap in DUR among these countries. The socioeconomic and political environment in LatAm countries, and particularly, and the fragmentation of healthcare systems and infrastructure (e.g., lack of well-structured electronic databases, human resources, linkage with several sources, easy communication, etc.) limit the availability of patient-level DUR data.^{14,15}

The CNC studies are needed in the LatAm region to inform stakeholders about the patterns and inequalities in drug use, drug-related expenditures and adverse events to improve health care of the populations of these countries. However, CNC studies can only be performed if data sources are available to provide relevant and valid data. Therefore, there is an urgent need to identify and compile an inventory of publicly available data sources useful for DUR in these countries.

The aim of this study was to compile an inventory of available national drug utilization data sources and to characterize these sources, by building network capacity, involving collaboration to improve pharmacoepidemiological research in the LatAm region.

METHODS

Design

This is a cross-national comparison study conducted by a network of DUR experts from nine Latin American countries. The approach was to build a network of national teams who were responsible for screening and extracting the data sources by country.

Building a network of National Teams

The objective of this network was to investigate the available data sources in each country, in cooperation with the interested parties at the national level.

Five researchers who are experts in pharmacoepidemiology from Brazil (n=2), United States - US (n=1) and Europe (n=2) designed the study and constituted the coordinating team. Two of these experts participated in previous CNC studies in Europe.^{16,17}

The coordinating team invited researchers (suggested by the ISPE Brazilian International Regional Interest Group (BRAZINT – RIG), and Drug Utilization Research Group Latinamerica-DURG LA) that worked in the government sector of 12 LatAm countries (Argentina, Brazil, Bolivia, Chile, Colombia, Equator, Guatemala, Honduras, Mexico, Nicaragua, Peru, Uruguay). An open peer snowballing sampling was performed, as the initially invited experts were asked to identify colleagues knowledgeable in data sources for DUR in their countries.^{18,19}

A multidisciplinary network of national DUR experts involving researchers and data custodians was established.

Type of data sources (eligibility criteria)

We defined data sources for DUR as any with information on medicines utilization, including volume and price, supported by governmental organizations (or public agency created by either a national government or a state government within a federal system).

We included routinely gathered administrative and non-administrative drug-related data sources of healthcare organizations that cover jurisdictions (regional or national) or multi-sites organizations serving a large population (e.g. a population not restricted to one hospital, community or specific setting). This inventory did not include data sources from health insurance companies or sickness funds.

We excluded data sources from private organizations (e.g., IQVIA), or healthcare providers, but left included data sources which contained a mix of data from the public and private health sectors. We also excluded data from individual hospitals, or individual primary care facilities or individual specialized clinics.

Search strategy and screening process

In the first step, the coordinating team conducted a structured systematic internet search in the health-related institutional and governmental LatAm countries websites to identify potential data sources for DUR. To optimize this process, the coordinating team identified national DUR experts, or teams and invited them to participate in the study.

In the second step, the national experts in each country contacted other DUR researchers to identify additional potential data sources.

The third step involved searching the literature. The experts searched for studies or documents published between each database inception to October 31st, 2020 without any limit regarding publication type or status, in the following web-sources: MEDLINE/PubMed, LILACS (Health information from Latin America and the Caribbean countries) and Scopus. Also, the experts searched the grey literature such as the CAPES THESES DATABASE (Brazil), national health institutes, bulletins, or other documents of the Ministry of Health and other healthcare providers and health-related institutions in each country. In addition, we performed a manual search (through medical journals or conference publications for reports which were not indexed in the major electronic databases) and perusing reference lists based on citations of selected documents (*Figure 1*).

The following keywords were used: “pharmacoepidemiology”, “drug utilization”, “Latin America”, the names of each LatAm country and acronym of data sources. These concept terms were combined with Boolean operators and used along with their English, Spanish and Portuguese translations.

Experts from each country, working in pairs and independently, conducted an in-depth screening and review of potentially eligible data sources. The divergences about the usefulness of each database for DUR were discussed during the monthly meeting of the coordinating team with the national teams until consensus was achieved.

Data extraction and Data Analysis

Once available data sources were identified, we used a checklist (Box 1) to describe the characteristics of each database.

We defined a database as publicly accessible when it was available on websites free of charge and without requiring registration to browse for information. Granularity was defined as the level of geographic area at which data was collected and stored. The national DUR expert teams described the data sources available in their countries.

RESULTS

DUR experts from 12 countries were contacted. Three of them were not able to participate in the study activities and provide the requested information (Bolivia, Guatemala and Honduras). The National teams of nine countries (Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, Nicaragua and Peru) participated. These teams included 44 experts from 32 organizations (Table 1).

A total of 124 data sources for DUR met the inclusion criteria, while 60 data sources did not, and were excluded from the inventory (Figure 2).

We did not find any published studies that use the DUR data sources from Uruguay, Peru and Nicaragua. Brazil was the country with the highest number of published DUR studies from its data sources.

Table 3 summarizes all information about data sources for DUR in LatAm countries, presenting their main characteristics.

Accessibility of Data Sources

Data sources could be classified into multiple categories specified by the accessibility criteria (Box 1). Overall, thirty-seven data sources were publicly accessible and 90 had access restrictions. Nine data sources had unclear rules for data access and eight were unavailable for public use. Ecuador and Nicaragua did not have publicly accessible data sources; fewer than 4 publicly available databases were identified in Peru, Chile, Uruguay and Mexico (one, two, two, and three, respectively). Most of the data sources (n=44) were available only to people working at the institutions that that generated the data therein .

Type of healthcare provider and sector

Seventy-six data sources provided only public sector data, 45 contained data from both sectors (public and private) and three included data from the private sector but controlled by the government.

Forty-six data sources originated from pharmacy records, 18 came from patient clinical records, nine data sources derived from both pharmacy and patient records, nine from wholesalers, eight were survey data (data sources with information from surveys), and 34 were another type of data (e.g., patient reports, notifications of suspicious adverse drug reaction, lawsuit for medicines etc.).

Chile and Colombia did not have data sources generated by pharmacy records. Nicaragua, Peru and Uruguay did not have data sources originated solely from patient clinical records.

The majority of data sources (n=43) contained data from ambulatory care, three data sources were based on data from hospitals only, and 63 provided data from both settings (ambulatory and hospital). Thirty-eight of these databases was classified as able to provide separated information and 25 without this possibility.

In most countries data generators were the Ministry of Health and Social Security Institutions, regulatory authorities and research institutions.

Further characteristics of the data sources, including years of coverage, level of aggregation and geographic granularity.

The majority (n=88) of the data sources provided individual-level data. The level of data aggregation in Argentina and in Brazil depended on the type of accessibility, in which a given publicly accessible data source provided only aggregate-level data while individual-level data could be available only upon request (details on supplementary table). Nicaragua (4/4), Uruguay (8/9), Argentina (28/31), and Mexico (8/11) where most data sources provided patient-level data.

Regarding the geographic granularity of the data, 74 data sources provided national data with multi-level granularity, 19 national data without multi-level granularity, and 31 provided regional data with or without multi-level granularity.

Twenty-one data sources had 20 or more years of data availability, and 44 were created in the last 10 years. For 44 data sources the year of initial data availability or creation were not known.

Detailed information on the data sources per country are presented in the supplemental materials.

DISCUSSION

Main findings

The present study compiled an inventory of 124 potential data sources for DUR from nine out of the 12 invited LatAm countries. Bolivia, Guatemala and Honduras did not participate. The majority of data sources for DUR came from the Ministries of Health or other governmental health institutions such as social security and regional or municipal governmental organizations. Most of the data sources were created for administrative purposes in the last ten years to register and inform on public health sector data. The most frequent sources were those that originated from pharmacy records, which mostly contained individual-level data.

Despite a large number of data sources we identified in this inventory, their accessibility is a major concern. In most of cases, data sources were only available to researchers working in the institution in which the data were generated. Another shortcoming was the fact that only aggregate-level data was accessible, despite the great number of data sources that are publicly and conveniently available. In LatAm countries there were 17 data sources that were either not accessible in any way or for which the process for obtaining data was not clear or lacking regulation. Additionally, in two countries (Ecuador and Nicaragua) there were no publicly available data.

Data accessibility is critical for DUR researchers, to inform the decision-making process. DUR information is necessary for strategic planning and priority setting; for assurance of healthcare quality and design of quality improvement strategies; for management of diseases and injuries; and for implementing policies and programs focusing on the acquisition, reimbursement, pricing and use of cost-effective medicines in clinical settings. These strategies are especially important in settings with scarce healthcare resources and high disease burden, as in many LatAm countries.^{20,21} Previous studies have identified that the available DUR data sources in LatAm countries were not used for decision-making purposes,^{13,14,22} and this reality must be changed.

The healthcare providers' and patients' choices on the use of medicines should be based on the evidence-based information that comes from rigorous, systematic research and formal reports of healthcare providers. In addition, DUR information helps citizens to demand effective policies and services and to hold their governments accountable for the allocation and use of resources for health. This is the recurrent context in LATAM and Asian countries, where despite the existence of universal healthcare, no standardized sources for provision of longitudinal data are in-place. We found not only limited access to the DUR data sources, but also lack of transparency in releasing data for national research, considering most of data sources are restricted to certain institutions.

There is a remarkable mismatch between the need for DUR-related information in LatAm countries and the ability of researchers and decision-makers to respond to this need; and this is a lost opportunity for the Region. In contrast, European and North American countries have been successfully using health care data sources to determine the coverage of recently licensed therapies while diminishing price/payment terms based on the actual performance of these medicines^{23,24}. In addition, countries where healthcare-

related information is routinely collected have used this information to compare use of medicines and their health and economic impact, both within and across nations.²¹

Positive changes in drug licensing, regulation, and pricing practices in Europe, and North America have resulted from data gathering and analysis from multiple data sources or for large populations.²³ In the USA, the Food and Drug Administration constructed a large database of more than 100 million subjects to address the safety and effectiveness of novel medicines. In Canada, the Canadian Network for Observational Drug Effect Studies has similar goals. The European Union has recently launched a Big Data taskforce to address this issue.^{23,25,26}

Although the purpose of the literature search was to detect data sources for DUR, and not to make an exhaustive inventory of the publications generated from them, important inequalities in the publications on DUR in the 9 LatAm countries exist. Uruguay, Peru and Nicaragua do not have published studies that use the DUR data sources in these countries.

To achieve better dissemination and use of DUR results, policymakers need to be involved in the research process from the setting of the research objectives. Moreover, availability of data should be open to other institutions other than data owners. Even though most data sources in the studied countries belonged to the ministries of health and other government organizations, they were not publicly available and there was no clear process for accessing these data for decision-making purposes. We believe that government data should be freely available for DUR and for dissemination of results for accountability, administrative and clinical reasons. Multiple studies^{23,26} demonstrated that DUR is important to strengthen the countries' health systems' capacities to develop national medicine policies that support equitable access and quality in the use of medicines.¹⁶

Strengths, challenges and limitation of this study

This is the first study that compiles and describes the inventory of data sources for DUR in 9 LatAm countries. The study aimed at facilitating the progress of DUR studies and cross-national comparison of drug-related issues and improving drug-related policies in these countries. The creation of a DUR sources inventory was possible due to the voluntary cooperation of the DUR experts and the support of the International Society of Pharmacoepidemiology, showing that cooperative work can overcome country boundaries and advance knowledge.

The strengths of this study include the comprehensive search strategy, the use of the pre-defined checklist to describe characteristics of the databases for DUR and the inclusion of 9 LatAm countries. Despite input from other successful studies, the study design was original.^{13,14,27} The current study and the inventory are useful to know which data sources are out there but does not modify accessibility constraints. Perhaps a common access model could be developed to enable researchers to perform DURs.

In addition, our study exemplifies and promotes international networking among LatAm country researchers and contributes to cross-national DUR comparisons, which are

crucial for evaluation of drug safety and effectiveness, and of value to regulatory and health policy making.

Our research has some limitations and challenges. First, some data sources could have been missed because of the difficulty of accessing the websites of the healthcare institutions in LatAm countries, or because there are still health institutions with only paper-based data sources. Second, we did not perform a systematic review, but a comprehensive broad exploration of the current DUR data sources in the above-mentioned 9 LatAm countries. Third, due to the limited access, we did not ascertain the completeness and validity of the information that each data source provides. We investigated only the characteristics and the content of the data sources to identify their usefulness for DUR.

Other important limitations must be discussed. One is the concept of data privacy, which is not the same across the countries we studied. Some countries have been undertaking anonymization of patient-level data, which could help accessibility in the future. Another is the fact that only government, public data sources were searched for and included. Also, publication bias might have ensued, due to use of sources with websites or the publications themselves. Finally, private data sources were not included. These are important sources of information but mostly available only to whoever can pay for access – and LatAm researchers have funding constraints for this type of expenditure.

CONCLUSION

The value of this study is that it is the first such illustration of the situation in LatAm. A large number of DUR-relevant data sources in nine LatAm countries identified by the present study have great potential; however, validation of these data sources, should be a topic for further study.

The accessibility to these databases represents an important challenge. The national health information systems with clearly defined access rules for DUR should be promoted to overcome the current data fragmentation and accessibility problems in LatAm countries. The access to DUR data sources should be transparent, feasible, affordable, and research-protocol-driven.

The proposed DUR sources inventory might be of value for researchers, health and other regulatory authorities, and pharmaceutical companies conducting DUR. Latin America and member states' health authorities should encourage and support national DUR and Latin American collaboration in this field.

ETHICS STATEMENT

The authors state that no ethical approval was needed.

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CONFLICT OF INTEREST

None.

DISCLOSURES

CONTRIBUTORS

LCL is the principal investigator and led the writing of the manuscript. LCL, ME, CSOC, LFL and MS are the project managers, co-investigators and contributed to the writing and revision of the manuscript. All co-investigators contributed to the data collection, writing and revision of the manuscript. All authors read and approved the final manuscript.

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Box

Box 1 – Checklist of data source

1.	Data provider custodian, steward.
2.	Type of data source (public, private or both).
3.	Health care setting of data sources (hospital, ambulatory care, both).
4.	Years of coverage.
5.	Accessibility (publicly and convenient; restricted pre-authorized research protocol only access; access limited to or dependent on country-specific legislation; available only to researchers working in the institution; the process for obtaining data is not clear or lacking specific regulation; Not accessible any way/ data not available for public use.
6.	Sources of the data (wholesalers, pharmacy/retail outlet, physician, others).
7.	Geographic granularity of data (national, regional, municipality, multi-sited organization, other).
8.	Type of data (aggregate or individual-level).

Tables

Table 1 – Network team from participating countries and organizations

Country	Characteristics	Researchers	Organizations
Argentina	Area: 2,780,400 km ² Population estimate (2019): 44,938,712 hab Density: 14.4/km ²	4	2
Brazil	Area: 8,515,767 km ² Population estimate (2019): 210,147,125 hab Density: 25/km ²	16	9
Chile	Area: 756,096.3 km ² Population (2017): 17,574,003 hab Density: 24/km ²	3	3
Colombia	Area: 1,141,748 km ² Population estimate (2020): 50,372,424 hab Density: 42.23/km ²	4	3
Ecuador	Area: 283,561 km ² Population estimate (2018): 17,084,358 hab Density: 61/km ²	4	3
Mexico	Area: 1,972,550 km ² Population estimate (2020): 128,649,565 hab Density: 61/km ²	8	8
Nicaragua	Area: 130,375 km ² Population estimate (2019): 6,486,201 hab Density: 51/km ²	1	1
Peru	Area: 1,285,216 km ² Population estimate (2020): 32,824,358 hab Density: 23/km ²	2	1
Uruguay	Area: 176,215 km ² Population estimate (2019): 3,518,552 hab Density: 19.8/km ²	2	2
Total		44	32

Source: World Health Organization, The World Bank, Wikipedia (Accessed: December 30, 2020).

Table 3 – Data sources for DUR by LatAm countries

Countries	Argentina	Brazil	Chile	Colombia	Ecuador	Mexico	Nicaragua	Peru	Uruguay	TOTAL
Characteristics of the datasources	31	37	9	12	4	11	4	7	9	124
Accessibility*										144
Publicly and conveniently accessible	4	17	2	8	0	3	0	1	2	37
Restricted pre-authorized protocol-only access	0	1	4	3	3	3	2	0	0	16
Access limited to or dependent on country-specific legislation	1	19	6	0	0	0	0	0	4	30
Available only researchers working in the institution (It is only people that is from the institution that provide the database)	29	6	1	1	0	5	2	0	0	44
The process for obtaining data is not clear, without general regulation	0	0	2	0	1	0	0	6	0	9
Not accessible any way/ Data not available for public use	0	6	0	0	0	0	0	0	2	8
Geographic granularity (data)										124
National data without further granularity	1	1	1	6	0	1	1	4	4	19
National data with further granulatiry	6	29	8	6	4	10	3	3	5	74
Regional data (with or without) further granularity	24	7	0	0	0	0	0	0	0	31
Sector of data source (data source)										124
Public health system	29	20	4	1	3	9	2	5	3	76
Private sector	0	1	0	2	0	0	0	0	0	3
Both	2	16	5	9	1	2	2	2	6	45
Data source generate by (data source)										124
Wholesaler	2	0	3	2	0	0	0	0	2	9
Pharmacy records	27	10	0	0	1	1	1	2	4	46
Patient records	2	5	6	1	1	3	0	0	0	18

Pharmacy and Patients records	0	6	0	0	1	1	1	0	0	9
Survey data	0	3	0	2	0	1	0	2	0	8
Other (administrative records, lawsuit, spenditure, notifications, prices, etc.)	0	13	0	7	1	5	2	3	3	34
Setting of data source (data source)										124
Ambulatorial	28	12	1	0	0	1	0	1	0	43
Hospital	0	1	0	0	0	1	0	1	0	3
Both (possible to separate)	2	10	4	4	2	7	3	5	1	38
Both (not possible to separate)	1	7	4	4	2	0	0	0	7	25
Not applicable	0	7	0	4	0	2	1	0	1	15
Type o data (data)*										135
Individual-level data	28	23	3	8	2	8	4	4	8	88
Aggagate-level data	6	22	6	4	2	3	0	3	1	47

*The sum might be more than the number of the data sources, considering there were data sources providing more than one type of accessibility and type of aggregate data.

Figures

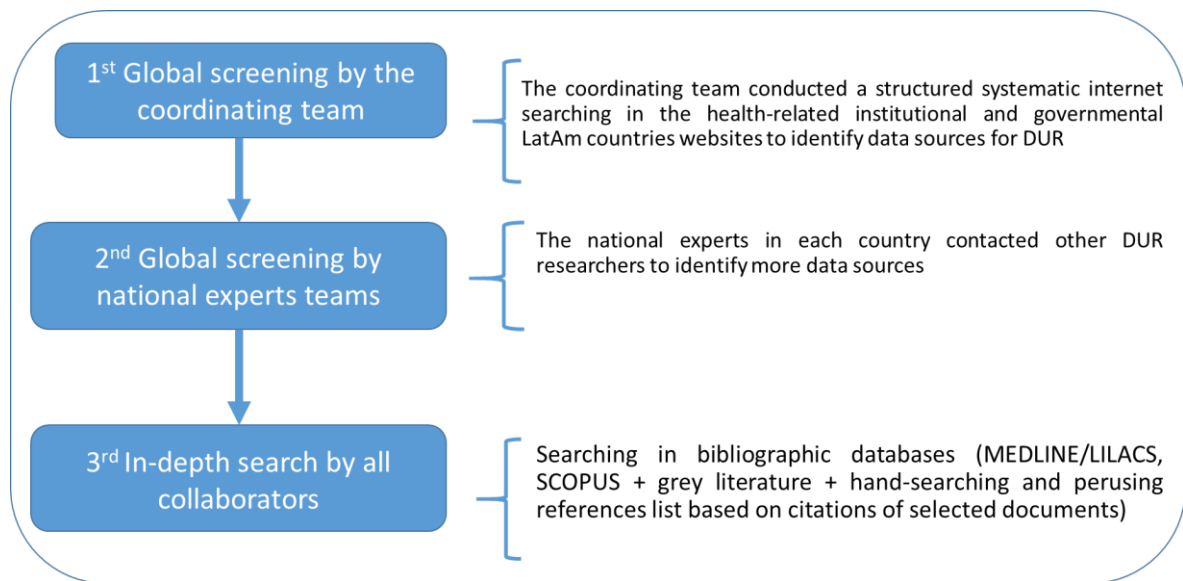


Figure 1 – Searching strategies to identify Data Sources in LatAm for DUR

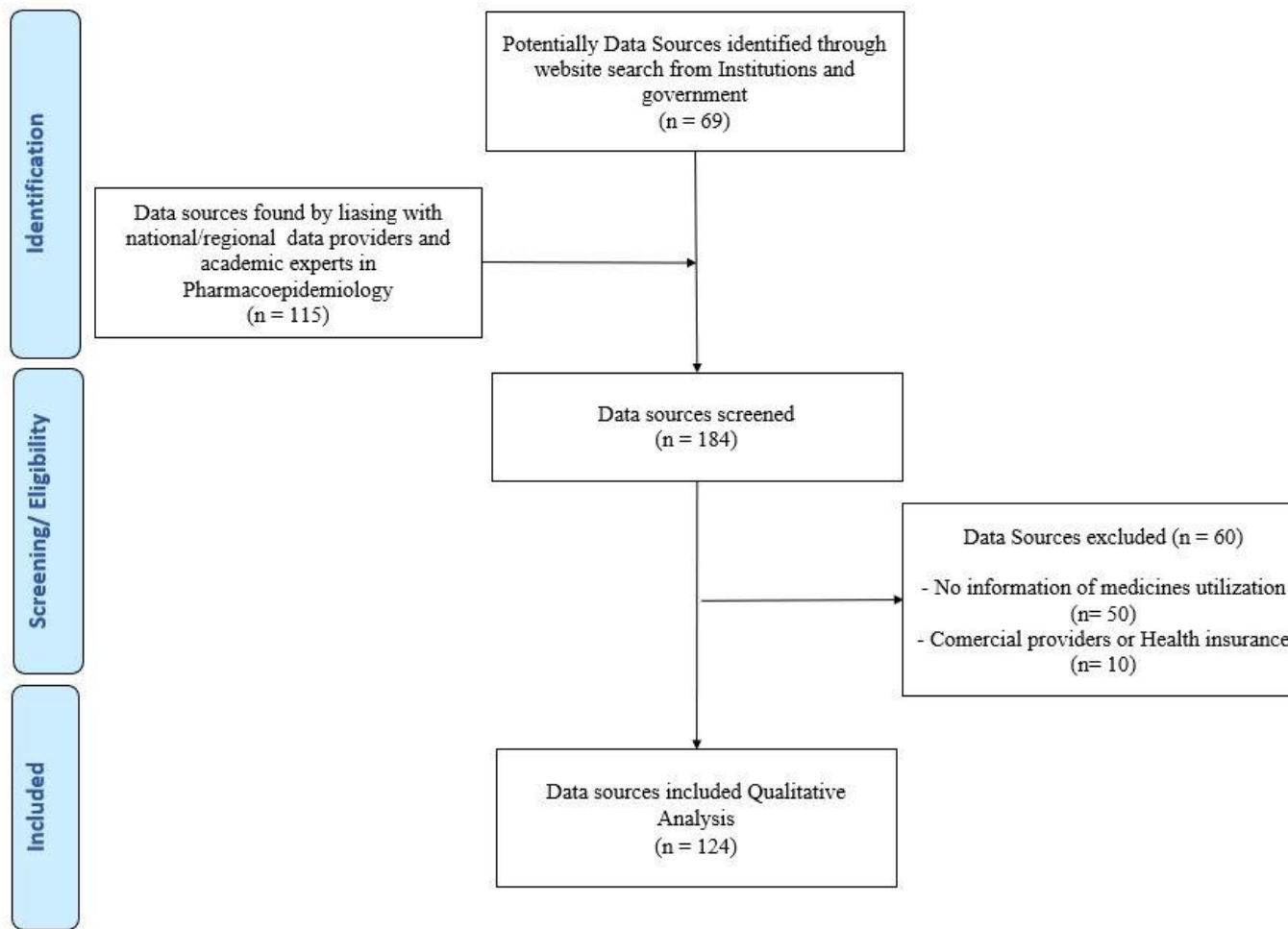


Figure 2 - Flowchart of data sources for DUR

Country	Data source acronym	Full Name data source	Accessibility	Geographic Granularity	Level Data	Description of data sources	Custodian	Website	Sector	Sources of data	Healthcare setting: ambulatory or hospital	Years Coverage	Explanation about the data or settings
ARGENTINA	INDEC	Instituto Nacional de Estadística y Censos [National Institute of Statistics and Censuses]	Publicly and conveniently accessible online.	National	Aggregate-level data	The INDEC generates quarterly data on sales revenue of pharmaceutical products for human use. The pharmaceutical products are classified according to the ATC system. The data contains information on drug production at the national level, resale of imports, essential drugs by country of origin, among others. Additionally, INDEC conducts periodic surveys of household consumption and surveys of risk factors for chronic diseases in the general population that include drug use data.	INDEC (Decentralized Organization that depends on the National Ministry of Economy)	www.indec.gov.ar	Public and private	Wholesaler	Both (impossible to separate)	Available online since 2010	
ARGENTINA	SNFV	Sistema Nacional de Farmacovigilancia [National Pharmacovigilance System]	Publicly and conveniently accessible online, some information is only available to the researchers working for the SNFV.	National; Regional (province, state, more than one city)	Aggregate-level data & Individual-level data	The National Pharmacovigilance System is in charge of detecting, evaluating, and preventing adverse effects derived from the use of medicines (including vaccines).	ANMAT (Administración Nacional de Medicamentos, Alimentos y Tecnología Médica)	https://www.argentina.gob.ar/annat/farmacovigilancia	Public and private	Patient records	Both (possible to separate)	Unknown	
ARGENTINA	SVHI	Programa Nacional de VIH/SIDA [National HIV/AIDS Program]	Publicly and conveniently accessible online, some information is only available to the researchers working for the SVHI.	National; Regional (province, state, more than one city)	Aggregate-level data & Individual-level data	The database of the SVHI Program provides information on HIV drugs supplied to the patients who receive health care in public health sector.	Ministry of Health of the Nation	http://www.ms.gub.gov.ar/vih/svhi/	Public	Pharmacy records	Ambulatory only	Unknown	
ARGENTINA	BNDE	Banco Nacional de Drogas Especiales [National Bank of Special Drugs]	Restricted accessibility: the database is only available to the researchers working for the BNDE.	National; Regional (province, state, more than one city)	Aggregate-level data & Individual-level data	The database of the Drug Bank of the national Ministry of Health provides information on the essential cancer drugs supplied to the patients who receive health care in public hospitals.	Ministry of Health of the Nation	http://www.msal.gov.ar/index.php/home-banco-de-drogas	Public	Pharmacy records	Both (possible to separate)	Unknown	
ARGENTINA	CUS	Cobertura Universal de Salud (CUS)- Guía de Medicamentos Esenciales para el Primer Nivel de Atención [Universal Health Coverage Guide to Essential Medications in the First Level of Care]	Publicly and conveniently accessible online.	National; Regional (province, state, more than one city)	Aggregate-level data	The CUS is a governmental program that provides essential medication to the low-income population. The CUS official database contains information on the essential medication provision (monthly data by province and by health institution). The program has a complementary database called "Monthly Transfers for Medicines" that offers detailed information on the transfers made by the Coordination of Essential Medicines in Argentina. The information can be visualized at the national and state levels.	Ministry of Modernization and Secretary of Health of the Nation	https://datos.gub.ar/dataset/salud-consultas-medicamentos-esenciales#q=186.33.21.24-index.php/transferencias	Public	Wholesaler	Ambulatory only	Since 2003 to date	
ARGENTINA	SUMAR	Programa SUMAR [SUMAR program]	Restricted accessibility: the database is only available to the researchers working for the SUMAR.	National; Regional (province, state, more than one city)	Aggregate-level data	The database provides information about beneficiaries enrolled in the Sumar Program, including health services, benefits, and medicines that these beneficiaries received.	National Secretary of Health, Sub-Secretariat of Public Health Coverage)	https://datos.gub.ar/vi/dataset/salud-total-beneficiarios-inscritos-al-programa-sumar-con-cobertura-efectiva-basica-ceb	Public	Patient records	Ambulatory only	Since 2006 to date	
ARGENTINA	PAMI	Programa de Atención Médica Integral [Comprehensive Health Care Program]	Restricted accessibility: the database is only available to the researchers working for the PAMI.	National; Regional (province, state, more than one city)	Individual-level data	The National Institute of Social Services for Retirees and Pensioners provides medical assistance to people over 65. The database of the PAMI contains information about the number of active affiliates of the National Institute of Social Services for Retirees and Pensioners, oversold list of affiliates, list of medication prices, list of purchases and contracts, registry of dispensed medicines and pharmaceutical treatment with 100% coverage, amount of electronic recipes, and budget of the institution.	Decentralized Autonomous organization that depends directly on the National Government. However formally depends from the Secretary of Health (Ministry of Development & Health).	https://gobiernoabierto.pami.org/	Public	Pharmacy records	Ambulatory only	Since 2000 to date	
ARGENTINA	ROMA	Instituto de Obra Médica Asistencial. La obra social de la Provincia de Buenos Aires. [Institute of Medical Assistance. Social Institution of the Province of Buenos Aires]	Restricted accessibility: the database is only available to the researchers working for the ROMA.	Regional (province, state, more than one city)	Individual-level data	The ROMA provides health care coverage for the public workers of the province the Buenos Aires. The ROMA has an administrative database that contains information about dispensed medicines. Although access to the database is limited to internal users, the ROMA website provides information about the list of medicines and medical services covered by this institution and ROMA's expenditures. However, the information is limited.	Ministry of Health of Buenos Aires State	http://www.roma.gba.gov.ar/	Public	Pharmacy records	Ambulatory only	Since 2007 to date	
ARGENTINA	OBIA	Obra Social de la Ciudad de Buenos Aires [Social Institution of the City of Buenos Aires]	Restricted accessibility: the database is only available to the researchers working for the OBIA.	Regional (province, state, more than one city)	Individual-level data	The OBIA provides health care coverage for public workers of the City of Buenos Aires. The OBIA has an administrative database that contains information about dispensed medicines. Although access to the database is limited to internal users, the OBIA website provides information about the list of medicines and medical services covered by this institution and OBIA's expenditures. However, the information is limited.	Ministry of Health of Buenos Aires City	http://www.obia.org.ar/	Public	Pharmacy records	Ambulatory only	Unknown	
ARGENTINA	OSEP	Obra Social de los Empleados Públicos [Social Institution of Public Employees]	Restricted accessibility: the database is only available to the researchers working for the OSEP.	Regional (province, state, more than one city)	Individual-level data	The OSEP provides health care coverage for public workers of Catamarca province. The OSEP has an administrative database that contains information about dispensed medicines. Although access to the database is limited to internal users, the OSEP website provides information about the list of medicines and medical services covered by this institution and OSEP's expenditures. However, the information is limited.	Ministry of Health of Catamarca State	http://www.osep.gba.gov.ar/osep/	Public	Pharmacy records	Ambulatory only	Unknown	
ARGENTINA	SEROS	Instituto de Seguridad Social y Seguros Servicio de Obra Social [Institute of Social Security and Insurance of the Social Institution Service]	Restricted accessibility: the database is only available to the researchers working for the SEROS.	Regional (province, state, more than one city)	Individual-level data	The SEROS provides health care coverage for public workers of Chubut. The SEROS has an administrative database that contains information about dispensed medicines. Although access to the database is limited to internal users, the SEROS website provides information about the list of medicines and medical services covered by this institution and SEROS's expenditures. However, the information is limited.	Ministry of Health of Chubut State	https://www.inss.gov.ar/	Public	Pharmacy records	Ambulatory only	Unknown	
ARGENTINA	INSSEP	Instituto de Seguridad Social Seguros y préstamos [Institute of Social Security Insurance and loans]	Restricted accessibility: the database is only available to the researchers working for the INSSEP.	Regional (province, state, more than one city)	Individual-level data	The INSSEP provides health care coverage for public workers of Chaco province. The INSSEP has an administrative database that contains information about dispensed medicines. Although access to the database is limited to internal users, the INSSEP website provides information about the list of medicines and medical services covered by this institution and INSSEP's expenditures. However, the information is limited.	Ministry of Health of Chaco State	http://www.insssep.com.ar/	Public	Pharmacy records	Ambulatory only	Unknown	
ARGENTINA	APROSS	Administración Provincial de Seguros de Salud [Provincial Health Insurance Administration]	Restricted accessibility: the database is only available to the researchers working for the APROSS.	Regional (province, state, more than one city)	Individual-level data	The APROSS provides health care coverage for public workers of Córdoba province. The APROSS has an administrative database that contains information about dispensed medicines. Although access to the database is limited to internal users, the APROSS website provides information about the list of medicines and medical services covered by this institution and APROSS's expenditures. However, the information is limited.	Ministry of Health of Córdoba State	http://www.apross.gov.ar/	Public	Pharmacy records	Ambulatory only	Unknown	
ARGENTINA	JOSCOR	Instituto de Obra Social de Corrientes [Corrientes Social Work Institute]	Restricted accessibility: the database is only available to the researchers working for the JOSCOR.	Regional (province, state, more than one city)	Individual-level data	The JOSCOR provides health care coverage for public workers of Corrientes province. The JOSCOR has an administrative database that contains information about dispensed medicines. Although access to the database is limited to internal users, the JOSCOR website provides information about the list of medicines and medical services covered by this institution and JOSCOR's expenditures. However, the information is limited.	Ministry of Health of Corrientes State	https://www.corrientes.gov.ar/home/JOSCOR/	Public	Pharmacy records	Ambulatory only	Unknown	
ARGENTINA	JOSPER	Instituto de Obra Social de la provincia de Entre Ríos [Institute of Social Work of the province of Entre Ríos]	Restricted accessibility: the database is only available to the researchers working for the JOSPER.	Regional (province, state, more than one city)	Individual-level data	The JOSPER provides health care coverage for public workers of Entre Ríos province. The JOSPER has an administrative database that contains information about dispensed medicines. Although access to the database is limited to internal users, the JOSPER website provides information about the list of medicines and medical services covered by this institution and JOSPER's expenditures. However, the information is limited.	Ministry of Health of Entre Ríos State	http://www.josper.gov.ar/	Public	Pharmacy records	Ambulatory only	Unknown	
ARGENTINA	IASEP	Instituto de Asistencia Social de Empleados Públicos [Institute of Social Assistance for Public Employees]	Restricted accessibility: the database is only available to the researchers working for the IASEP.	Regional (province, state, more than one city)	Individual-level data	The IASEP provides health care coverage for public workers of Formosa province. The IASEP has an administrative database that contains information about dispensed medicines. Although access to the database is limited to internal users, the IASEP website provides information about the list of medicines and medical services covered by this institution and IASEP's expenditures. However, the information is limited.	Ministry of Health of Formosa State	https://www.iasep.gov.ar/	Public	Pharmacy records	Ambulatory only	Unknown	
ARGENTINA	ISJ	Instituto de Seguros de Jujuy [Jujuy Insurance Institute]	Restricted accessibility: the database is only available to the researchers working for the ISJ.	Regional (province, state, more than one city)	Individual-level data	The ISJ provides health care coverage for public workers of Jujuy province. The ISJ has an administrative database that contains information about dispensed medicines. Although access to the database is limited to internal users, the ISJ website provides information about the list of medicines and medical services covered by this institution and ISJ's expenditures. However, the information is limited.	Ministry of Health of Jujuy State	http://isj.gov.ar/	Public	Pharmacy records	Ambulatory only	Unknown	
ARGENTINA	SEMPRE	Servicio Médico previsional [Social security services]	Restricted accessibility: the database is only available to the researchers working for the SEMPRE.	Regional (province, state, more than one city)	Individual-level data	The SEMPRE provides health care coverage for public workers of La Pampa province. The SEMPRE has an administrative database that contains information about dispensed medicines. Although access to the database is limited to internal users, the SEMPRE website provides information about the list of medicines and medical services covered by this institution and SEMPRE's expenditures. However, the information is limited.	Ministry of Health of La Pampa State	http://www.indepa.gov.ar/	Public	Pharmacy records	Ambulatory only	Unknown	
ARGENTINA	APOS	Administración provincial de Obra Social [Provincial Administration of Social Work]	Restricted accessibility: the database is only available to the researchers working for the APOS.	Regional (province, state, more than one city)	Individual-level data	The APOS provides health care coverage for public workers of La Rioja province. The APOS has an administrative database that contains information about dispensed medicines. Although access to the database is limited to internal users, the APOS website provides information about the list of medicines and medical services covered by this institution and APOS's expenditures. However, the information is limited.	Ministry of Health of La Rioja State	http://www.aapos.gov.ar/	Public	Pharmacy records	Ambulatory only	Unknown	
ARGENTINA	IPS	Instituto de Previsión Social Misiones [Institute of Social Welfare Misiones]	Restricted accessibility: the database is only available to the researchers working for the IPS.	Regional (province, state, more than one city)	Individual-level data	The IPS provides health care coverage for public workers of Misiones province. The IPS has an administrative database that contains information about dispensed medicines. Although access to the database is limited to internal users, the IPS website provides information about the list of medicines and medical services covered by this institution and IPS's expenditures. However, the information is limited.	Ministry of Health of La Rioja State	http://www.inprevisiomas.gov.ar/index.php?option=com_content&view=full&Itemid=235	Public	Pharmacy records	Ambulatory only	Unknown	
ARGENTINA	OSEP	Obra Social de Empleados Públicos [Social Work of Public Employees]	Restricted accessibility: the database is only available to the researchers working for the OSEP.	Regional (province, state, more than one city)	Individual-level data	The OSEP provides health care coverage for public workers of Mendoza province. The OSEP has an administrative database that contains information about dispensed medicines. Although access to the database is limited to internal users, the OSEP website provides information about the list of medicines and medical services covered by this institution and OSEP's expenditures. However, the information is limited.	Ministry of Health of La Rioja State	https://osepmendoza.com.ar/	Public	Pharmacy records	Ambulatory only	Unknown	
ARGENTINA	ISSN	Instituto de Seguridad Social de Neuquén [Neuquén Social Security Institute]	Restricted accessibility: the database is only available to the researchers working for the ISSN.	Regional (province, state, more than one city)	Individual-level data	The ISSN provides health care coverage for public workers of Neuquén province. The ISSN has an administrative database that contains information about dispensed medicines. Although access to the database is limited to internal users, the ISSN website provides information about the list of medicines and medical services covered by this institution and ISSN's expenditures. However, the information is limited.	Ministry of Health of La Rioja State	https://www.issn.gov.ar/	Public	Pharmacy records	Ambulatory only	Unknown	
ARGENTINA	IPROSS	Instituto Provincial de Seguro de Salud [Provincial Institute of Health Insurance]	Restricted accessibility: the database is only available to the researchers working for the IPROSS	Regional (province, state, more than one city)	Individual-level data	The IPROSS provides health care coverage for public workers of Río Negro province. The IPROSS has an administrative database that contains information about dispensed medicines. Although access to the database is limited to internal users, the IPROSS website provides information about the list of medicines and medical services covered by this institution and IPROSS's expenditures. However, the information is limited.	Ministry of Health of Río Negro State	https://www.ipross.rionegro.gov.ar/	Public	Pharmacy records	Ambulatory only	Unknown	
ARGENTINA	JOSEP	Instituto de Obra Social del Empleado Provincial [Institute of Social Work of the Provincial Employee]	Restricted accessibility: the database is only available to the researchers working for the JOSEP.	Regional (province, state, more than one city)	Individual-level data	The JOSEP provides health care coverage for public workers of Catamarca province. The JOSEP has an administrative database that contains information about dispensed medicines. Although access to the database is limited to internal users, the JOSEP website provides information about the list of medicines and medical services covered by this institution and JOSEP's expenditures. However, the information is limited.	Ministry of Health of Santiago del Estero State	http://www.josep.gov.ar/	Public	Pharmacy records	Ambulatory only	Unknown	
ARGENTINA	DOS	Dirección de Obra Social [Directorate of Social Work]	Restricted accessibility: the database is only available to the researchers working for the DOS.	Regional (province, state, more than one city)	Individual-level data	The DOS provides health care coverage for public workers of San Juan province. The DOS has an administrative database that contains information about dispensed medicines. Although access to the database is limited to internal users, the DOS website provides information about the list of medicines and medical services covered by this institution and DOS's expenditures. However, the information is limited.	Ministry of Health of San Juan State	http://www.obrosocial.sanjuan.gov.ar/dos/	Public	Pharmacy records	Ambulatory only	Unknown	
ARGENTINA	IAPOS	Instituto Antártico Provincial de Obra Social [Provincial Antarctic Institute of Social Work]	Restricted accessibility: the database is only available to the researchers working for the IAPOS.	Regional (province, state, more than one city)	Individual-level data	The IAPOS provides health care coverage for public workers of Santa Fe province. The IAPOS has an administrative database that contains information about dispensed medicines. Although access to the database is limited to internal users, the IAPOS website provides information about the list of medicines and medical services covered by this institution and IAPOS's expenditures. However, the information is limited.	Ministry of Health of Santa Fe State	http://www.iaposantf.gub.ar/	Public	Pharmacy records	Ambulatory only	Unknown	
ARGENTINA	DOSEP	Dirección de Obra Social del Estado Provincial [Directorate of Social Work of the Provincial State]	Restricted accessibility: the database is only available to the researchers working for the DOSEP.	Regional (province, state, more than one city)	Individual-level data	The DOSEP provides health care coverage for public workers of San Luis province. The DOSEP has an administrative database that contains information about dispensed medicines. Although access to the database is limited to internal users, the DOSEP website provides information about the list of medicines and medical services covered by this institution and DOSEP's expenditures. However, the information is limited.	Ministry of Health of San Luis State	http://www.laprosantlf.gub.ar/	Public	Pharmacy records	Ambulatory only	Unknown	

Country	Data source acronym	Full Name data source	Accessibility	Geographic Granularity	Level Data	Description of data sources	Custodian	Website	Sector	Sources of data	Healthcare setting: ambulatory or hospital	Years Coverage	Explanation about the data or settings
ARGENTINA	CSS	Caixa de Servicios Sociales [Social Services Fund]	Restricted accessibility: the database is only available to the researchers working for the CSS.	Regional (province, state, more than one city)	Individual level data	The CSS provides health care coverage for public workers of Santa Cruz province. The CSS has an administrative database that contains information about dispensed medicines. Although access to the database is limited to internal users, the CSS website provides information about the list of medicines and medical services covered by this institution and CSS's expenditures. However, the information is limited.	Ministry of Health of Santa Cruz State	http://css.gov.ar/	Public	Pharmacy records	Ambulatory only	Unknown	
ARGENTINA	IPS	Instituto Provincial de Salud de Salta [Provincial Institute of Health of Salta]	Restricted accessibility: the database is only available to the researchers working for the IPS.	Regional (province, state, more than one city)	Individual level data	The IPS provides health care coverage for public workers of Salta province. The IPS has an administrative database that contains information about dispensed medicines. Although access to the database is limited to internal users, the IPS website provides information about the list of medicines and medical services covered by this institution and IPS's expenditures. However, the information is limited.	Ministry of Health of Salta State	http://www.ipsalta.gov.ar/	Public	Pharmacy records	Ambulatory only	Unknown	
ARGENTINA	OSEF	Obras Social de la Provincia de Tierra del Fuego, Antártida e Islas del Atlántico Sur [Works Social of the Province of Tierra del Fuego, Antarctica and the South Atlantic Islands]	Restricted accessibility: the database is only available to the researchers working for the OSEF.	Regional (province, state, more than one city)	Individual level data	The OSEF provides health care coverage for public workers of Tierra del Fuego province. The OSEF has an administrative database that contains information about dispensed medicines. Although access to the database is limited to internal users, the OSEF website provides information about the list of medicines and medical services covered by this institution and OSEF's expenditures. However, the information is limited.	Ministry of Health of Tierra del Fuego State	https://osef.gub.ar/	Public	Pharmacy records	Ambulatory only	Unknown	
ARGENTINA	IPST	Instituto de Previsión y Seguridad Social de Tucumán [Institute of Social Security and Social Security of Tucumán]	Restricted accessibility: the database is only available to the researchers working for the IPST.	Regional (province, state, more than one city)	Individual level data	The IPST provides health care coverage for public workers of Tucumán province. The IPST has an administrative database that contains information about dispensed medicines. Although access to the database is limited to internal users, the IPST website provides information about the list of medicines and medical services covered by this institution and IPST's expenditures. However, the information is limited.	Ministry of Health of Tucumán State	http://ipst.gov.ar/	Public	Pharmacy records	Ambulatory only	Unknown	
BRAZIL													
BRAZIL	AGHU	Aplicativo de Gestão para Hospitais Universitários [Management Application for University Hospitals]	Restricted accessibility: the database is only available after obtaining the study protocol authorization	Regional (province, state, more than one city)	Individual level data	The "Aplicativo de Gestão para Hospitais" is a system to support the standardization of assistance and administrative practices of Federal University Hospitals. This system allows the development of national indicators to facilitate the adoption of common improvement projects by the hospitals. The system is currently implemented in 40 University Hospitals across the country. The system contains modules on patients admission, diagnosis, and pharmacy.	Ministry of Health	http://www2.earth.gov.br/wc/ghu/inicio	Public	Patient records	Both (not possible to separate)	Since 2010 to date	Federal University Hospitals of the Ebsers network.
BRAZIL	APURASUS	Sistema de Apruração e Gestão de Custos do SUS [SUS Cost Calculation and Management System]	Data not available for public use	National; Regional (province, state, more than one city)	Aggregate-level data	The SUS Cost Calculation and Management System (APURASUS) is an information system developed by the Ministry of Health to assist the SUS Health Units in the cost calculation and management process, in a standardized and structured manner. It is a web system, with free access. The system has the ability to adapt to the specific characteristics of Units with different size, structure and type of health services.	Ministry of Health	Not found	Public	Other type	Both (possible to separate)	Since 2013 to date	Costs
BRAZIL	BNAFAR	Base Nacional de Dados de Ações e Serviços da Assistência Farmacêutica no SUS [National Database of Pharmaceutical Services]	Data not available for public use	National; Regional (province, state, more than one city)	Individual level data	The BNAFAR is designed to contain consolidated national data on ambulatory drug consumption of the health centers of the Municipalities, States, and Federal Districts, as well as of the Popular Pharmacy Program. Although established in 2017, the database is still under development and should be fully launched in 2019. The BNAFAR database will contain data on all public drug access programs.	Ministry of Health	http://anvisa.gov.br/assistencia-farmacologica/base-nacional-de-dados	Public	Pharmacy records	Ambulatory only	Since 2017 to date	Data from HORUS and Farmácia Popular
BRAZIL	BPS	Banco de Preços em Saúde [Health Price Bank]	Publicly and conveniently accessible online	National	Aggregate-level data	The BPS system was created by the Ministry of Health to register and make public information on public and private purchases of medicines and medical devices. The BPS database aims to help in the social control over public spending on health. This database allows consulting the information per institution. Since December 2017, it is mandatory to report all purchases of medicines made in the country, including purchases by court order to the BPS.	Ministry of Health	http://bps.saude.gov.br/login_jdf	Public and Private	Other type	Not Applicable	Since 1997 to date	National Prices of medicines approved by ANVISA
BRAZIL	CHIA	Sistema de Comunicação de Informação Hospitalar e Ambulatorial [Hospital and Ambulatory Information Communication System]	Publicly and conveniently accessible online; access to the information depends on the country-specific legislation - The freedom of Information Act.	National; Regional (province, state, more than one city)	Individual level data	The Hospital and Ambulatory Information Communication System is a health information system used by the Ministry of Health and the National Supplementary Health Agency to monitor hospitalization in all public and private hospitals around the country, whether or not members of the SUS. The CHIA database provides information on health care networks (e.g., Hospital Health Plans), population epidemiology, and clinical practices.	Ministry of Health	https://datas.us.gov.br/transferencia-de-arquivos/2	Public and Private	Both (Pharmacy and Patients records)	Both (not possible to separate)	Since 1979 to date	
BRAZIL	CMD	Conjunto Mínimo de Dados [Minimum Data Set]	Publicly and conveniently accessible online	National; Regional (province, state, more than one city)	Aggregate-level data	The Minimum Data Set (CMD) is a public database that collects data from all health facilities across the country in each health care consultation/visit. This database is a part of the Electronic Health Registry (RES) and the Integrated National Health Information System (SINIS). In 2020, the CMD should replace the existing nine systems used to collect the information from the health care records, including APAC, ABIL and IPA, in order to unify the data.	Ministry of Health	https://datas.us.gov.br/transferencia-de-arquivos/2	Public	Other type	Both (not possible to separate)	Since 2017 to date	Administrative Records on procedures
BRAZIL	Coagopatias	Coagopatias WEB [Coagopathies WEB]	Data not available for public use	National; Regional (province, state, more than one city)	Aggregate-level data	The "WEB Coagopatias" is a system responsible for the unified registry of patients with hereditary coagopathies and the distribution of drugs for patients with these diseases, in Brazil.	Ministry of Health	http://coagopatiasWeb.datas.us.gov.br	Public	Both (Pharmacy and Patients records)	Ambulatory only	Since 2009 to date	
BRAZIL	Conecte SUS - app	Conecte Sistema Único de Saúde (SUS) [Connect the Unified Health System]	Data not available for public use	Regional (province, state, more than one city)	Individual level data	The Conecte SUS application allows citizens to access their health records to see their health history, consultation all over the Health Care Network, as well as drugs purchased and the limit of purchase for each drug, in the public and private sectors.	Ministry of Health	https://conecte-us.saude.gov.br/menu/home	Public and Private	Both (Pharmacy and Patients records)	Both (possible to separate)	Since 2019 to date	Mobile application for patients
BRAZIL	Dataton	Sistema Brasileiro de Dados de Intoxicações [Brazilian Poison Data System]	Restricted accessibility: the database is only available to the researchers working for the Brazilian Poisoning Data System	National; Regional (province, state, more than one city)	Aggregate-level data	The DATATON is a computerized system for processing, storing, processing, analyzing and retrieving data on poisonings treated in health services. The standardized data of the DATON facilitates its use in clinical and epidemiological studies, product safety assessment (toxicovigilance and pharmacovigilance), and national assessment of the impact of toxic agents on the health of the population.	Brazilian Association of Information Centers and Toxicological Assistance - ABRACIT (Associação Brasileira de Centros de Informação e Assistência Toxicológica)	https://dataton2.abracit.org.br/daton2s/login	Public and Private	Other type	Not Applicable	Since 2013 to date	Notification from Toxicological Information Centers
BRAZIL	e-SUS AB	e-SUS Atenção Básica [e-SUS Primary Care]	Access to the information depends on the country-specific legislation - The freedom of Information Act.	National; Regional (province, state, more than one city)	Individual level data	The e-SUS AB system was instituted by the Department of Primary Care (DAB) to computerize/simplify data collection by the primary health care units, unify data and improve the quality of data. This technological tool is executed using software that works as an Electronic Citizen's Record (PEC).	Ministry of Health	https://aps.saude.gov.br/aps/eus	Public	Patient records	Ambulatory only	Since 2011 to date	
BRAZIL	Farmácia Cidadã	Farmácia Cidadã [The Citizen Pharmacy Project]	Access to the information depends on the country-specific legislation - The freedom of Information Act.	Regional (province, state, more than one city)	Individual level data	The Citizen Pharmacy Project aims at expanding access to high-cost medicines. The dispense of this type of medicine should be approved by the Pharmacology and Therapeutics Commission. The request should be submitted to the Commission for evaluation together with the documents prepared in line with clinical protocols and therapeutic guidelines that justify the prescription. The Commission should authorize the request for dispensing of the medication if it met the criteria specified in the above-mentioned guidelines. To continue the treatment, a request for renewal must be submitted every three months. The project provides a "Regula Saúde" system that allows users to follow the requests of their medicines.	Espírito Santo State government	https://farmacia.cidada.es.gov.br/farmacia-cidada-otofinal/(http://201.62.46.72/pacientes/login.action)	Public	Pharmacy records	Ambulatory only	Since 2005 to date	
BRAZIL	FARMÁCIA POPULAR	Sistema de Co-Pagamento para Expansão da Farmácia Popular do Brasil [Co-Payment System for the Expansion of Popular Pharmacy in Brazil]	Access to the information depends on the country-specific legislation - The freedom of Information Act.	National; Regional (province, state, more than one city)	Aggregate-level data	The Brazilian Popular Pharmacy Program aims to offer the population alternative access to essential medicines. Five medications are offered for patients with hypertension, diabetes, and asthma; as well as 90% discount is offered for medicines to high cholesterol and triglycerides, Parkinson's, osteoporosis, and glaucoma. Also, the Program offers contraceptives and generic diapers through the co-pay system. The database of this program contains information on these medicines.	Ministry of Health	https://anvisa.gov.br/acoes-e-programas/farmacia-popular	Public	Pharmacy records	Ambulatory only	Since 2004 to date	
BRAZIL	HORUS	Sistema Nacional de Gestão da Assistência Farmacêutica [National Pharmaceutical Assistance Management System]	Access to the information depends on the country-specific legislation - The freedom of Information Act.	National; Regional (province, state, more than one city)	Individual level data	The HORUS is a national system used to manage online pharmaceutical services of the Ministry of Health in Brazil. The system allows controlling the distribution of medicines available to the Unified Health System. The objective of the HORUS is to enable the registration of the medicines that patients use, facilitating their electronic management, verification of the expiration dates, and helping the pharmacoepidemiological control of dispensed medicines.	Ministry of Health	http://anvisa.gov.br/assistencia-farmacologica/sistemas-horus	Public	Pharmacy records	Ambulatory only	Since 2009 to date	
BRAZIL	Micronutrientes	Sistema de Micronutrientes [Micronutrient System]	Publicly and conveniently accessible online.	National; Regional (province, state, more than one city)	Aggregate-level data	The "Micronutrientes" is a control and monitoring system for the distribution of supplements linked to the National Vitamin A, Iron, and Niacin (SUS) strategy to fortify child feeding with micronutrients (vitamins and minerals).	Ministry of Health	https://saps.saude.gov.br/micronutrientes/	Public	Pharmacy records	Ambulatory only	Since 2006 to date	
BRAZIL	NOTIVISA VIGIMED	Sistema de Notificação em Vigilância Sanitária/Sistema de Notificação de Eventos Adversos a Medicamentos [National Notification System for Adverse Events and Technical Complaints]	Access to the information depends on the country-specific legislation - The freedom of Information Act.	National; Regional (province, state, more than one city)	Individual level data	The Notivisa is a computerized system developed by the Brazilian National Surveillance Agency (ANVISA) to receive notifications of adverse events and technical complaints related to the use of medical products and services under sanitary surveillance. VigMed is a new Anvisa system for reporting adverse drug events of medicines, including vaccines that has been available since December 2018. The VigMed was elaborated in a partnership with the Uppsala Monitoring Centre (UMC) of the World Health Organization (WHO). Currently, VigMed has the Citizen and Health Professionals Modules and should only be used by the users of medicines and health professionals not registered in Notivisa. Hospitals participated in the Anvisa Sentinel Network, and the Patient Safety Centers must continue to use Notivisa. The transition between these two systems will occur gradually in the second half of 2021.	Brazilian Health Regulatory Agency (Anvisa)	http://anvisa.gov.br/notivisa/ AND http://anvisa.gov.br/vigimed	Public and Private	Notifications of ADR	Both (possible to separate)	Since 2008 (Notivisa) Since 2018 (Vigimed)	Notification of ADRs from ambulatory and hospital settings and Marketing Authorization Holders.
BRAZIL	PERWeb	Sistema de Notificação Espontânea de Suspeita de Reação Adversa a Medicamento ou Devio da Qualidade de Medicamento do Estado de São Paulo [Spontaneous Notification System of Suspected Adverse Drug Reaction or Deviation from the Quality of Drugs in the State of São Paulo]	Access to the information depends on the country-specific legislation - The freedom of Information Act. The database is only available to the researchers working for the São Paulo State government.	Regional (province, state, more than one city)	Individual level data	Pertaining to the Electronic Notification System of the Health Surveillance Center of the São Paulo State Department of Health (CVS-SES - SP). In addition to reports of adverse drug events (reactions and quality deviations), the system receives notifications of medical devices, cosmetics and household cleaning products.	São Paulo State government	http://www.cvs.saude.sp.gov.br/sistemas_ady.asp?c=noticoes	Public and Private	Notifications of ADR	Both (possible to separate)	Since 2005 to date	Notification of ADRs from ambulatory and hospital settings.
BRAZIL	PSAUM	Pesquisa Nacional sobre Acesso, Utilização e Promoção do Uso Racional de Medicamentos no Brasil [National Survey on Access, Use and Promotion of the Rational Use of Medicines in Brazil]	Publicly and conveniently accessible online.	National; Regional (province, state, more than one city)	Individual level data	The PSAUM survey aimed at evaluating the access and rational use of medicines by the Brazilian population. The survey database contains the information on (1) the medicines used by patients with the most prevalent diseases; (2) the medicines used in primary care, strategic drugs, and medicines used in the specialized healthcare; (3) places of obtaining medicines, (e.g., authorized pharmacies and the Popular Pharmacy program); (4) the indicators of the rational use of medicines and (5) the information on the substance to prevent drug treatment; (6) access to medicines according to demographic, social and economic variables; (7) literacy; (8) health care and (9) the use of health services by patients with chronic diseases. The survey information is useful to assess the possible effects of public policies on access to medicines by reducing costs of the drugs and combating inequity; it is also helpful to evaluate the Health Policy in Brazil related to Pharmaceutical Assistance and its effectiveness.	Ministry of Health	http://www.abgs.br/psaum	Public and Private	Survey	Not Applicable	2013	The household survey that includes information on prescribing and hospital settings.
BRAZIL	PNS	Pesquisa Nacional de Saúde [National Health Survey]	Access to the information depends on the country-specific legislation - The freedom of Information Act. The database is only available to the researchers working for the Ministry of Health.	National; Regional (province, state, more than one city)	Aggregate-level data; Individual level data	The National Health Survey provides national level data on the health situation and the lifestyles of the Brazilian population, as well as on health care access and use of the health care services, including preventive services, continuity of care, and financing of health care.	Ministry of Health	http://datas.us.gov.br/pns-pesquisa-nacional-de-saude-2013/	Public and Private	Survey	Not Applicable	Since 2013 to date	The household survey that includes information on ambulatory and hospital settings.
BRAZIL	S-CODES (old SCI-SP)	Sistema de Coordenação de Demandas Estratégicas - SP [Strategic Demand Coordination System - SP]	Available only researchers working in the institution (It is only people that is from the institution that provide the database)	Regional (province, state, more than one city)	Aggregate-level data	The S-Codes is an information system implemented by the São Paulo State Department of Health (SES-SP) to register legal health demands. The system was created in 2005 for the purpose of complying with the court orders. Currently, the system provides information on the profile of judicialization in São Paulo in terms of the demand profile and in the product profile (medicines/supplies), the cost and the administrative impact that these judicial demands generate.	State Department of Health of São Paulo	http://codes.saude.gov.br/LoginApp.aspx?c=Timeover=1&cd=ReqPath http://codes.us.gov.br/initial.aspx	Public and Private	Other type	Both (possible to separate)	Since 2005 (SCI) Since 2010 (SCODES)	Lawsuits
BRAZIL	SI-PNI	Sistema de Informações do Programa Nacional de Imunizações [National Immunization Program Information System]	Publicly and conveniently accessible online	National; Regional (province, state, more than one city)	Aggregate-level data	The National Immunization Program Information System provides the information about routine vaccination, vaccination campaigns and users of the Special Immunobiological Referral Centers; the information on the distribution of immunobiologicals all over the country, the losses of vaccines, and the adverse post vaccination reactions, among others. The SI-PNI database allows analyzing vaccination coverage by vaccine type, the doses applied and dropout rate throughout the country by age group, in a certain period of time, in a given geographical area.	Ministry of Health	https://datas.us.gov.br/acoes-e-informacoes/immunizacoes-desde-1994/	Public and Private	Pharmacy records	Ambulatory only	Since 2004 to date	
BRAZIL	SIAPF	WebService Sistema Integrado de Administração Financeira [Integrated Financial Management System WebService]	Access to the information depends on the country-specific legislation - The freedom of Information Act. The database is only available to the researchers working for the SIAPF.	National; Regional (province, state, more than one city)	Aggregate-level data	SIAPF is an accounting system aimed at monitoring and controlling Brazilian federal government budget and financial execution. It contains systematic records of documents (payment documents, bank orders, etc.) that portray all inflows and expenditures performed, also provides information on the volume of financial resources available to the National Treasury. SIAPF is an essential instrument of public spending control and transparency both for the different levels of government and for society itself.	Ministry of Health	https://sifd.tesouro.gov.br/	Public	Other type	Not Applicable	Since 1987 to date	Administrative records. It involves documents on the processing, control and financial, patrimonial and accounting execution of the Brazilian federal government.
BRAZIL	SIASG/SISME	Sistema Integrado de Administração de Serviços Gerais (compras net) [Integrated System of Administration of General Services (net purchases)]	Access to the information depends on the country-specific legislation - The freedom of Information Act. The database is only available to the researchers working for the SIASG.	National; Regional (province, state, more than one city)	Aggregate-level data	Integrated System of Administration of General Services (net purchases) is a Ministry of Planning, Budget, and Management website that provides information regarding the tender and bidding promoted by the Federal Government. The system also allows the execution of electronic procurement processes.	Ministry of Health	http://www.comprasnet.gov.br/seguro/loginPortal.asp	Public	Other type	Not Applicable	Since 1994 (SIASG) Since 2002 (SRME)	Purchase system
BRAZIL	SIASI	Sistema de Informação da Atenção da Saúde Indígena [Indigenous Health Care Information System]	Data not available for public use	Regional (province, state, more than one city)	Aggregate-level data	The Indigenous Health Care Information System (SIASI) includes information on demographic characteristics, morbidity, immunization and mortality of indigenous population in 34 health districts. The system has a multi-module format, with data recorded on paper by the local SIASIs, then transferred to a computer, recorded on different media and analyzed producing the local reports and then sent for input to "SIASI Web".	Ministry of Health	http://anvisa.gov.br/saude-indigena/gestao/siasi https://www.youtube.com/watch?v=wccB1c_M	Public	Patient records	Both (not possible to separate)	Since 1999 to date	
BRAZIL	SIA-SUS	Sistema de Informações Ambulatoriais do SUS [SUS Outpatient Information System]	Publicly and conveniently accessible online; access to the information depends on the country-specific legislation - The freedom of Information Act.	National; Regional (province, state, more than one city)	Aggregate-level data & Individual level data	The Ambulatory Information System (SIA) stores data on outpatient care in the Unified Health System in Brazil. SIA serves as the mechanism for reimbursing private facilities (mainly hospitals) for all ambulatory services covered by SUS, including emergency care. SIA uses several capture applications (e.g., SUS Procedure Chart Management System (SIGTAP), magnetic ambulatory information production bulletin) to record basic-, medium-, and high-complexity care procedures.	Ministry of Health	https://datas.us.gov.br/transferencia-de-arquivos/2	Public	Both (Pharmacy and Patients records)	Ambulatory only	Since 1995 to date	The System of High Complexity Procedures Authorization (APAC-SIA) is available through the SIA-SUS. The APACs provide individual registers of high costs ambulatory procedures and high costs medicines for specific diseases such as biologics.
BRAZIL	SIKLOM	Sistema Gerencial de Controle Logístico de Medicamentos [Management System for Logistic Control of Medicines]	Access to the information depends on the country-specific legislation - The freedom of Information Act.	National; Regional (province, state, more than one city)	Aggregate-level data	The SIKLOM system helps the STD, AIDS and Viral Hepatitis Department keep up to date with the supply of medicines to ART treatment in the country. The information is used to monitor ARV stocks and distribution and obtain clinical and laboratory data on AIDS patients and different ART regimens.	Ministry of Health	http://art.aids.gov.br/	Public	Pharmacy records	Both (not possible to separate)	Since 1997 to date	
BRAZIL	SIGAF	Sistema Integrado de Gerenciamento da Assistência Farmacêutica [Integrated Pharmaceutical Assistance Management System]	Access to the information depends on the country-specific legislation - The freedom of Information Act. The database is only available to the researchers working for the SIGAF.	Regional (province, state, more than one city)	Individual level data	The SIGAF system is software that allows registration of inventory and drug dispensing history and allows the registration of clinical, pharmaceutical, and laboratory data of patients in the state of Minas Gerais. This system is similar to HORUS.	Minas Gerais Government	http://sigaf.saude.mg.gov.br/	Public	Pharmacy records	Ambulatory only	Since 2014 to date	

Country	Data source acronym	Full Name data source	Accessibility	Geographic Granularity	Level Data	Description of data sources	Custodian	Website	Sector	Sources of data	Healthcare setting: ambulatory or hospital	Years Coverage	Explanation about the data or settings
BRAZIL	SIH-SUS	Sistema de Informação Hospitalar [Hospital Information System]	Publicly and conveniently accessible online; access to the information depends on the country-specific legislation - The freedom of Information Act.	National; Regional (province, state, more than one city)	Aggregate-level data & Individual-level data	The Hospital Information System (SIH-SUS) gathers information on patient admissions in the network of SUS public hospitals and private hospitals contracted by the SUS. The information covers patients' demographic characteristics (e.g., sex, age), diagnoses, treatment, test results, adverse drug reactions, days and average length of stay and the total amount and value of reimbursed hospital services. The data are validated by local health authorities and transmitted to regional and national levels.	Ministry of Health	https://datasus.saude.gov.br/acesso-a-informacao/producao-hospitalar-sih-sus/	Public	Patient records	Hospital only	Since 1982 to date	
BRAZIL	SINAN	Sistema de Informação de Agravos de Notificação [Notifiable Diseases Information System]	Publicly and conveniently accessible online; access to the information depends on the country-specific legislation - The freedom of Information Act.	National; Regional (province, state, more than one city)	Aggregate-level data & Individual-level data	The Notifiable Diseases Information System (SINAN) serves to register diseases of compulsory notification, such as tuberculosis, leprosy, human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS), toxoplasmosis, dengue, and Zika. These systems allow register: 1) Individual Notification Form that filled at the hospital when there is a suspicion of obligatory notifiable disease, or unknown disease; 2) Negative Notification, when there is no disease confirmation; 3) Individual Investigation Form on identification of the source of infection and transmission mechanism. Each disease record includes name, sex, date of birth, place of residence, years of education, date of onset, symptom, laboratory tests, disease severity, and the outcome of the treatment.	Ministry of Health	https://datasus.saude.gov.br/transferencia-de-arquivos/	Public and Private	Other type	Both (possible to separate)	Since 1993 to date	
BRAZIL	SINTOX	Sistema Nacional de Informações Tóxico-Farmacológicas [National Poisoning Information System]	Publicly and conveniently accessible online	National; Regional (province, state, more than one city)	Aggregate-level data	The National Toxic-Pharmacological Information System (SINTOX) aims to coordinate the collection, compilation, analysis, and dissemination of cases of intoxication and poisoning. The information is registered by the National Network of Information Centers and Toxicological Assistance (RENAC) in all regions of Brazil. The information covers the diagnosis, prognosis, treatment and prevention of intoxications, including the toxicity of chemical and biological substances.	Oswaldo Cruz Foundation (Fiocruz)	https://sintox.icict.fiocruz.br/dados-nacionais	Public and Private	Other type	Both (not possible to separate)	Since 1986 to date	Notification from Toxicological Information Centers
BRAZIL	SIOPS	Sistema de Informações sobre Orçamentos Públicos em Saúde [Information System on Public Health Budgets]	Publicly and conveniently accessible online	National; Regional (province, state, more than one city)	Aggregate-level data	The Information System on Public Health Budgets (SIOPS) is a system available on the Internet that aims to calculate total revenues and expenditures of public health services. The SIOPS provides inputs to implement improvement of the situational diagnoses and management of the health sector and formulation of public policies. The system allows civil societies and health councils to exercise control over public management by making data available to the population.	Ministry of Health	https://base-dados.org/dados/sistema-de-informacoes-sobre-orcamentos-publicos-em-saude-siops	Public and Private	Other type	Both (possible to separate)	Since 2004 to date	Administrative records. Costs and health information
BRAZIL	SISAB	Sistema de Informação em Saúde para a Atenção Básica [Health Information System for Primary Care]	Publicly and conveniently accessible online; access to the information depends on the country-specific legislation - The freedom of Information Act.	National; Regional (province, state, more than one city)	Aggregate-level data	Health Information System for Primary Care (SISAB) constitutes the Primary Care information system to collect the information on financing and adherence to programs and strategies of the National Primary Care Policy and to replace the Primary Care Information System (SIAB). SISAB is part of the Department of Primary Care (DAB-SASMS) strategy called e-SUS Primary Care (e-SUS AB) that focuses on the improvement of the infrastructure and work processes automation of processes, and increase of the management of information.	Ministry of Health	https://siab.saude.gov.br/index.shtml	Public	Both (Pharmacy and Patients records)	Ambulatory only	Since 2013 to date	
BRAZIL	SISPENATAL WEB	Sistema de acompanhamento do programa de humanização no pré natal e nascimento [Monitoring System for Pregnant Women]	Publicly and conveniently accessible online; access to the information depends on the country-specific legislation - The freedom of Information Act.	National; Regional (province, state, more than one city)	Aggregate-level data & Individual-level data	SisPeNatal is a software developed to monitor pregnant women included in the Pre-Natal and Nascimento Humanization Program (PPN) of the Unified Health System. It gathers information on the minimum set of procedures for adequate prenatal care focusing on the reduction in maternal, perinatal and neonatal morbidity and mortality. The system records diverse data on the prenatal care, from the first consultation, laboratory tests, anti-tetanus vaccine, follow-ups and postpartum consultation among others.	Ministry of Health	http://datasus.saude.gov.br/transferencia-de-arquivos2#	Public	Pharmacy records	Both (possible to separate)	Since 2012 to date	
BRAZIL	SITE-TB	Sistema de Informação de Tratamentos Especiais de Tuberculose [Tuberculosis Special Treatment Information System]	Access to the information depends on the country-specific legislation - The freedom of Information Act.	National; Regional (province, state, more than one city)	Individual-level data	The Tuberculosis Special Treatment Information System (SITE-TB) focuses on the notification and monitoring of TB cases that need special treatment due to adverse reactions, toxicity, resistances, or comorbidities that contraindicate using the Basic Scheme. The system also allows the notification and monitoring of cases of non-tuberculous mycobacteriosis. These cases must be cared for by secondary and tertiary health units.	Ministry of Health	http://siets.saude.gov.br/index.html	Public	Patient records	Both (not possible to separate)	Since 2012 to date	
BRAZIL	Sivep-gripe	Sistema de informação de vigilância epidemiológica da gripe [Influenza epidemiological surveillance information system]	Publicly and conveniently accessible online	National; Regional (province, state, more than one city)	Individual-level data	The Influenza epidemiological surveillance information system (Sivep-gripe) is used for the Surveillance of influenza, Influenza-like Syndrome (ILS), and Severe Acute Respiratory Syndrome (SARS) in Intensive Care Units. This also includes Surveillance of Severe Acute Respiratory Syndrome (SARS) of hospitalized cases and deaths due to SARS.	Ministry of Health	http://plataforma.saude.gov.br/comunicacao/dados-abertos/	Public and Private	Other type	Both (possible to separate)	Since 2009 to date	
BRAZIL	SINGPC	Sistema Nacional de Gerenciamento de Produtos Controlados [National Management System of Controlled Products]	Publicly and conveniently accessible online; access to the information depends on the country-specific legislation - The freedom of Information Act.	National; Regional (province, state, more than one city)	Aggregate-level data & Individual-level data	The National Management System of Controlled Products (SNMPC) is a Brazilian computerized system aiming to control the sales of controlled drugs such as anesthetics, antibiotics, and antipsychotics. The system allows establishing links from the manufacturing to the final consumer.	Brazilian Health Regulatory Agency (Anvisa)	https://dados.gov.br/dataset?q=snmgpc&sort=score+desc%2C+metadado._modified+desc	Private	Pharmacy records	Ambulatory only	Since 2009 to date	
BRAZIL	VIGTEL	Vigilância de fatores de risco e proteção para doenças crônicas por inquérito telefônico [Surveillance of risk and protective factors for chronic diseases by telephone survey]	Publicly and conveniently accessible online	National; Regional (province, state, more than one city)	Aggregate-level data	The Surveillance of risk and protective factors for chronic diseases by telephone survey (VIGTEL) focuses on monitoring the magnitude of chronic diseases and their social, economic, behavioral, and political determinants. Since 2015, this survey includes information on the use of medication for hypertension and diabetes.	Ministry of Health	https://datasus.saude.gov.br/informacoes-de-saude/taboas/	Public and Private	Survey	Not Applicable	Since 2006 to date	Brazilian Telephone survey
BRAZIL	VIVA BEM - APP	Viva Bem	Data not available for public use	National; Regional (province, state, more than one city)	Individual-level data	VIVA BEM is a smartphone application that creates alerts for the medications HIV/AIDS patients take for the dates and times of tests and vaccines. It allows monitoring the consumption and withdrawal of antiretroviral medicines in an interactive and practical way to improve adherence. It also provides details of antiretroviral drug disposition and test results, among others.	Ministry of Health	https://play.google.com/store/apps/details?id=br.gov.datasus.vivabem&hl=pt_BR	Public and Private	Both (Pharmacy and Patients records)	Both (possible to separate)	Since 2015 to date	Mobile application for patients that registers patient-reported information
CHILE													
CHILE	FOFAR	Fondo de Farmacia [Pharmacy Fund]	Restricted accessibility: the database is only available after obtaining the study protocol authorization. Additionally, access to the information depends on the country-specific legislation - The freedom of Information Act.	National; Regional (province, state, more than one city); Municipality (one city); Organization multi-sited	Individual-level data	The FOFAR is a government program that focuses on delivering timely and free medicines to people and families affected by the non-communicable diseases. The program aims at enhancing health care technical quality in a comprehensive way guided by a family health approach. The primary focus of the program is on cardiovascular health problems (hypertension, diabetes, cholesterol, and high triglycerides). The databases of this program contain information on the delivered medicines.	Ministry of Health	https://www.minsal.cl/fofar/	Public	Patient records	Ambulatory only	Since 2015 to date	
CHILE	RED-RAM y ESAVI EPFO (ANAMED)	Base de datos de RAM-ESAVI (RAM-ESAVI Databases)	Restricted accessibility: the database is only available after obtaining the study protocol authorization. Additionally, access to the information depends on the country-specific legislation - The freedom of Information Act.	National; Regional (province, state, more than one city); Municipality (one city)	Aggregate-level data	RAM-ESAVI Databases gathers information on adverse drug reactions. The information includes (1) patient characteristics such as sex and age; (2) suspect drug characteristics: brand, dose, route, frequency of consumption, the reason for prescription and concomitant drugs; (3) adverse reaction (date, ADR description, duration, affected system) and (4) notifier (name, profession, establishment, geographic location), among other data.	Agencia de Vigilancia Nacional de medicamentos, Institute of Public Health (Regulatory Agency)	http://www.iaqch.cl/managed	Public and Private	Patient records	Both (possible to separate)	Since 1995 to date	
CHILE	Estupefacientes y psicotropicos (ANAMED)	Base de datos de exportaciones e importaciones de estupefacientes y psicotropicos [Database of exports and imports of narcotic drugs and psychotropics]	Restricted accessibility: the database is only available after obtaining the study protocol authorization. Additionally, access to the information depends on the country-specific legislation - The freedom of Information Act.	National	Aggregate-level data	The database provides information about exports and imports of narcotic drugs and psychotropics. The data can be analyzed by the type of medication and its pharmaceutical form.	Agencia de Vigilancia Nacional de medicamentos, Institute of Public Health (Regulatory Agency)	http://www.iaqch.cl/managed	Public and Private	Wholesaler	Both (impossible to separate)	Since 2016 to date	
CHILE	Chile compra (Chile buys)	Chile compra [Chile buys]	Restricted accessibility: the database is only available after obtaining the study protocol authorization. Additionally, access to the information depends on the country-specific legislation - The freedom of Information Act.	National; Regional (province, state, more than one city); Municipality (one city); Organization multi-sited	Aggregate-level data	"Chile buys" is the national database that focuses on the purchases and sales of medicines in Chile. The database contains the aggregate information for the entire public system. One can analyze who bought, how much was purchased, at what cost, and who was the purchasing distributor.	Ministry of Health	https://www.mercadopublico.cl/home	Public	Wholesaler	Both (impossible to separate)	Since 2003 to date	
CHILE	CENABAST	Base de datos de pedidos de compra (cestas de medicamentos) [Database of purchase orders (medicine baskets)]	Publicly and conveniently accessible online; access to the information depends on the country-specific legislation - The freedom of Information Act.	National; Regional (province, state, more than one city); Municipality (one city); Organization multi-sited	Aggregate-level data	The database of purchase orders (CENABAST) gathers information on the purchasing process mandated by the Ministry of Health, Undersecretariat of Assistance Networks, Undersecretariat of Public Health, National Health Fund, Health Services, Municipalities, and Municipal Corporations, and other entities of the National Health System.	Ministry of Health	https://www.cenabast.cl/en/about-us/about-us	Public	Wholesaler	Both (impossible to separate)	Since 1995 to date	
CHILE	FONASA	Fondo Nacional de Salud [National Health Fund]	Restricted accessibility: the database is only available to the researchers working for the FONASA	National; Regional (province, state, more than one city); Municipality (one city)	Aggregate-level data	The National Health Fund (FONASA) is a state-owned health insurance entity covering 80% of the Chilean population. The FONASA is a payer that covers the cost of medicines. Currently, FONASA has different databases that allow visualizing the consumption of medications. The FONASA database provides the best monitoring of drug consumption by the Ricarte Soto Law. The database enables analyzing the number of drugs consumed and their purchase price.	Fondo Nacional de Salud	https://www.fonasa.cl/sites/default/files/beneficiarios	Public	Patient records	Both (possible to separate)	Since 1978 to date	
CHILE	ISAPRES	Instituciones de Salud Previsional [Social Security Institutions]	The process to obtain data is not clear; there is no regulation.	National; Regional (province, state, more than one city); Municipality (one city)	Aggregate-level data	The Social Security Institutions are private entities that operate based on an insurance scheme. These institutions are empowered to manage the compulsory health contribution (7% of their taxable compensation) of workers and individuals who chose these institutions instead of the State Health System (FONASA). The Social Security Institutions have the databases of the records of the consumption of medicines of their patients in the hospital setting.	Social Security Institutions	http://www.isapre.cl/is-isapres	Public and Private	Patient records	Both (possible to separate)	Since 1981 to date	
CHILE	ENS	Encuesta Nacional de Salud [National Health Survey]	Publicly and conveniently accessible online	National; Regional (province, state, more than one city); Municipality (one city)	Individual-level data	The National Health Survey (ENS) is a tool used by the Ministry of Health to describe the diseases that Chilean men and women aged 15 and over suffer and their treatments. The information provided by this survey is used to formulate prevention plans, health care, and health policies. The survey collects data such as age, sex, income, pathologies, quality of life, drug used, among other variables.	Ministry of Health	http://epi.minsal.cl/encuesta-ens/	Public and Private	Patient records	Both (impossible to separate)	Since 1993 to date	
CHILE	CITUC	Centro de Información Toxicológica de la Universidad Católica [Toxicological Information Center of the Catholic University]	The process to obtain data is not clear; there is no regulation.	National; Regional (province, state, more than one city); Municipality (one city)	Individual-level data	The Toxicological Information Center of the Catholic University (CITUC), is a non-profit organization whose purpose is to serve the community by providing up-to-date scientific information in the case of toxicological and chemical emergencies in the country. CITUC is a national reference center that provides information regarding poisoning and incorrect use of medications, among others.	Toxicological Information Center of the Catholic University (CITUC)	http://epi.minsal.cl/encuesta-ens/	Public and Private	Patient records	Both (possible to separate)	Since 1992 to date	
COLOMBIA													
COLOMBIA	ENCY	Encuesta Nacional de Calidad de Vida [National Survey of Quality of Life]	Publicly and conveniently accessible online	National; Regional (province, state, more than one city)	Individual-level data	The National Survey of Quality of Life gathers information on health and healthcare, including the use of medicines in Colombia. The information on medicines includes: (1) if the healthcare provider prescribed the medicines to the survey participants; (2) if the medicines were related to the patient perception of health care quality; (3) reasons used to acquire medicines; (4) if the health care provider dispensed medicines; (5) reasons that explain incomplete delivery of medicines; and (6) if the person used legal processes to access the medicines in the last 12 months.	National Statistics Directorate (DANE)	http://microdatos.dane.gov.co/index.php/catalog/MICRODATOS/about-collection/81	Public and Private	Survey	Both (impossible to separate)	Since 1993 to date	
COLOMBIA	N/A	Negociación Pública de Medicamentos y Adquisiciones Centrales [Public Negotiation of Medicines and Central Procurement]	Publicly and conveniently accessible online	National	Individual-level data	The Public Negotiation of Medicines and Central Procurement website of the Ministry of Health and Social Protection of Colombia presents projected consumption and costs of Chronic Hepatitis C medications in 2018 in Colombia.	Ministry of health and Social Protection (MinSA)	https://www.minsalud.gov.co/salud/MT/Paginas/negociacion-y-compra-centralizada-de-medicamentos.aspx	Public and Private	Wholesaler	Both (impossible to separate)	Since 2017 to date	
COLOMBIA	FNE	Fondo Nacional de Narcóticos [National Narcotic Fund]	Publicly and conveniently accessible online	National	Aggregate-level data	The National Narcotics Fund is a Special Administrative Unit of the Ministry of Health and Social Protection, attached to the Directorate of Medicines and Technologies in Health. It provides weekly reports on the availability of narcotics and raw materials under the monopoly of the State.	Special Management Unit of the Medicines and Health Technologies Direction (MinSA)	https://www.minsalud.gov.co/salud/MT/Paginas/fondo-nacional-de-narcoticos.aspx	Public	Administrative records	Not Applicable	Since 2016 to date	Administrative records. National reports of controlled medicines and chemical products
COLOMBIA	N/A	Medicamentos a un Click [Medicines by one-click]	Publicly and conveniently accessible online	National	Individual-level data	The "Medicines by one-click" is a website of the Ministry of Health and Social Protection that provides information on the medicines available in Colombia, including the information on treatment indications, special considerations, adverse effects, use in special populations, local availability of registered products.	Ministry of health and Social Protection (MinSA)	http://medicamentosonline360.gov.co/	Public and Private	Administrative data	Not Applicable	Since 2016 to date	This is a digital tool that provides technical information about the medicines and local information on the medicines available in the country.
COLOMBIA	N/A	Alertas sanitarias nacionales [National safety alerts]	Publicly and conveniently accessible online	National	Individual-level data	The National Regulatory Agency published national safety alerts of medicines (e.g., alert for fraudulent marketing of NALOXONE HYDROCHLORIDE 0.4MG /ML in Colombia) that can be consulted here .	INVIMA	https://app.invima.gov.co/directorio/medicamentos-productos-biologicos	Public and Private	National records	Not Applicable	Unknown	
COLOMBIA	N/A	Información de registros sanitarios de medicamentos aprobados en Colombia [Information on sanitary registries of approved medicines in Colombia]	Publicly and conveniently accessible online	National	Individual-level data	The National Regulatory Agency publishes the information on registries of approved medicines in Colombia. The registries can be consulted by market name, active ingredients, and number or approval record.	INVIMA	http://consultasregistros.invima.gov.co/8082/Consultas/consultas/consultas-busqueda.aspx	Public and Private	National records	Not Applicable	Unknown	
COLOMBIA	SISMED	Sistema de información de precios de medicamentos [Medicines Price Information System]	Restricted accessibility: the database is only available after obtaining the study protocol authorization	National	Aggregate-level data	The Medicines Price Information System provides data to analyze and control the prices of medicines in Colombia. The system publishes quarterly reports on national medicines volume and expenditure from wholesalers, the pharmaceutical industry, and health care providers. Since 2007, the Medicines Price Information System (SISMED) cube allows access to the data of the report in an anonymous form, allowing analysis of this information.	Medicines and Health Technologies Direction (MinSA)	https://www.sispres.gov.co/portal/central/medicamentos-de-precio-de-medicamentos.aspx	Public and Private	Administrative records	Both (possible to separate)	Since 2007 to date	Administrative records. Prices of medicines
COLOMBIA	MPRES	Gestión de la dispensa del medicamento [Management of medicines dispensing]	Restricted accessibility: the database is only available after obtaining the study protocol authorization.	National; Regional (province, state, more than one city)	Individual-level data	The Management of Medicines Dispensing application is a tool that includes the registration of prescribed medicines NPI funded by the national budget and the registration of the complementary services.	Medicines and Health Technologies Direction (MinSA)	https://www.minsalud.gov.co/Paginas/MPres.aspx	Public and Private	Administrative records	Both (possible to separate)	Since 2017 to date	Administrative records. Aggregate data from national prescriptions
COLOMBIA	UPC	La Unidad de pago por captación [The Captation Payment Unit]	Restricted accessibility: the database is only available after obtaining the study protocol authorization.	National; Regional (province, state, more than one city)	Individual-level data	The Captation Payment Unit is a tool to register prescribed medicines included in the national list and prescribed by the contributive scheme of the national health system in Colombia.	Medicines and Health Technologies Direction (MinSA)	https://www.minsalud.gov.co/salud/Paginas/UPC_S.aspx	Private	Administrative records	Both (possible to separate)	Since 2014 to date	Administrative records. Aggregate data from national prescriptions and pricing data
COLOMBIA	N/A	Tienda virtual colombiana [Colombian Virtual Store]	Publicly and conveniently accessible online.	National; Regional (province, state, more than one city)	Aggregate-level data	The Colombian Virtual Store of the National Agency for Public Procurement - Colombia Buy Efficient (ANCPCE) focuses on developing and promoting public policies and tools to organize and articulate the procurement and public procurement processes to achieve greater efficiency and transparency, optimize State resources. The ANCPCE performs monitoring and analysis of the public procurement market and behavior of the Public Purchase System. The ANCPCE assists the territorial entities in managing purchases and provides tools for constant analysis of the current regulations and their application. The information of the Colombian Virtual Store allows following annual public expenditure on medicines for hemorrhoids and HIV.	Planning National Department	https://www.colombiainformatica.gov.co/tienda-virtual-del-estado-colombiano/visualizar-cuota/	Public and Private	Wholesaler	Both (impossible to separate)	Since 2019 to date	
COLOMBIA	Non acronym	Informe nacional sobre la calidad de la asistencia sanitaria. [National report on the quality of health care]	Publicly and conveniently accessible online.	National; Regional (province, state, more than one city)	Aggregate-level data	The National report on the quality of health care provides follow-up of the indicators for health care services quality in Colombia. The report has been elaborated by the Quality Office of the Mandatory Quality Assurance System of the MinSA. The National Reports (2009 and 2014) include several indicators on the use of medicines.	Medicines and Health Technologies Direction Quality Office (MinSA)	https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RRDE/DI/DOI-informe-nal-calidad-asistencia-salud-2015.pdf	Public and Private	Administrative records	Both (impossible to separate)	Since 2009 to date	Administrative records and health care providers reports (contributory regime and subsidized regime).
COLOMBIA	AUDIFARMA	Audifarma S.A. es una empresa enfocada en el suministro de medicamentos y dispositivos médicos [Audifarma S.A. is a company focused on the supply of medicines and medical devices]	Restricted accessibility: the database is only available to the AUDIFARMA staff	National; Regional (province, state, more than one city)	Individual-level data	Audifarma S.A. is a company focused on the supply of medicines and medical devices. The company provides coverage for various jurisdictions in Colombia. The company has an administrative database with information on dispensed medicines. The database is restricted to internal use. There are several studies published in international journals that used this database.	AUDIFARMA		Private	Administrative records	Both (possible to separate)	Unknown	
ECUADOR													

Country	Data source acronym	Full Name data source	Accessibility	Geographic Granularity	Level Data	Description of data sources	Custodian	Website	Sector	Sources of data	Healthcare setting: ambulatory or hospital	Years Coverage	Explanation about the data or settings
ECUADOR	SGI	Sistema General Integral (Integral Management System)	Restricted accessibility: the database is only available after obtaining the study protocol authorization.	National; Regional (province, state, more than one city); Municipality (one city); Organization multi-sited	Aggregate-level data	This is a national database that contains information on the demand for, distribution, and control of medicines. This is also a database that has information on the epidemiological profile of the Ecuadorian population. This database is filled online by multiple users (responsible for the pharmacy at each health institution of the Ministry of Public Health of Ecuador) throughout the country. The database covers approximately 40% of Ecuadorians, primarily people affiliated with the Ecuadorian Institute of Social Insurance.	The Ministry of Public Health of Ecuador	https://gpi1.msp.gov.ec/web/webclient/home	Public	Pharmacy records	Both (impossible to separate)	Since 2011 -to date	
ECUADOR	MIS-AS400	Sistema de Información Médica (Medical Information System)	Restricted accessibility: the database is only available after obtaining the study protocol authorization.	National; Regional (province, state, more than one city); Municipality (one city); Organization multi-sited	Individual-level data	This is a database of the medical records of the Ecuadorian Institute of Social Insurance (Instituto Ecuatoriano de Seguridad Social). The information of each medical record represents the electronic medical history of the patient. It allows describing medicines prescriptions and consumption, and it is also used for control, distribution, and request medicines.	The Ecuadorian Social Security Institute	Internal Computerized Database	Public	Both (Pharmacy and Patients records)	Both (possible to separate)	Since 2012 -to date	
ECUADOR	ARCISA Farmovigilancia	Agencia de Regulación y Control Sanitario. Programa de Farmovigilancia (Agency for Health Regulation and Control. Pharmacovigilance Program)	The process to obtain data is not clear; there is no regulation.	National; Regional (province, state, more than one city)	Individual-level data	The database contains notifications of adverse drug events and technical complaints related to the use of medicinal products.	Agency for Health Regulation and Control (Pharmacovigilance program)	Internal Computerized Database	Public	Notifications of ADR	Both (impossible to separate)	Since 2017 -to date	Spontaneous notification of suspicious ADR. Yellow cards
ECUADOR	SRM	Sistema Reporte de Medicamentos (Drug Reporting System)	Restricted accessibility: the database is only available after obtaining the study protocol authorization.	National; Regional (province, state, more than one city); Municipality (one city); Organization multi-sited	Aggregate-level data	This database contains reports of the private pharmacies and specialized hospitals on the sold units of medicines with or without a prescription and on the sale price per unit. This project started in 2013 with information of poor quality. Since 2019, a mandatory digital reporting platform was created. The data is filled on the internet by multiple users throughout the country.	The Ministry of Public Health of Ecuador	Internal Computerized Database	Public and Private	Patient records	Both (possible to separate)	Since 2013 -to date	
MEXICO													
MEXICO	ENSANUT	Encuesta Nacional de Salud y Nutrición (National Survey of Health and Nutrition)	Publicly and conveniently accessible online.	National, regional and municipality	Individual-level data	ENSANUT is a complex survey composed of 6 modules, such as Household, Adult Health, Children and Adolescents health questionnaires, health service users questionnaire among others. This survey is representative at the national, state, and urban-rural stratum levels. The survey collects data on the number of prescribed medicines (without specifying the medicine name), the information provided to the patient on the medication use, and how much the patient or his/her family paid for the medication. This information is only obtained for the individuals who had a health problem within 15 days before the survey as part of the household questionnaire and for a random sample of ambulatory health service users as part of the health services use questionnaire.	National Institute of Public Health	https://ensanut.insp.mx/encuestas/ensanut2018/index.php	Public and Private	Survey	Not Applicable	2000, 2006, 2012, 2016, 2018	
MEXICO	SALVAR HIV	Sistema de Administración, Logística y Vigilancia de Antirretrovirales (Antiretroviral Administration, Logistics and Surveillance System)	Restricted accessibility: the database is only available after obtaining the study protocol authorization.	National; Regional (province, state, more than one city)	Individual-level data	ENSANUT is a complex survey composed of 6 modules, such as Household, Adult Health, Children and Adolescents health questionnaires, health service users questionnaire among others. This survey is representative at the national, state, and urban-rural stratum levels. The survey collects data on the number of prescribed medicines (without specifying the medicine name), the information provided to the patient on the medication use, and how much the patient or his/her family paid for the medication. This information is only obtained for the individuals who had a health problem within 15 days before the survey as part of the household questionnaire and for a random sample of ambulatory health service users as part of the health services use questionnaire.	National Center for HIV/AIDS Prevention and Control (Centro Nacional para la Prevención y el Control del VIH/SIDA in Spanish)	https://salvar.salud.gob.mx/	Public	Patient records	Both (possible to separate)	Since 2011 -to date	
MEXICO	Vigflow/Vigbase (NOTREPORTA)	Comisión Federal para la Protección contra Riesgos Sanitarios. COFEPRIS (Pharmacovigilance database of the Federal Commission for the Protection against Sanitary Risk) (former NotReporta)	Restricted accessibility: the database is only available to the researchers working for the COFEPRIS.	National; Regional (province, state, more than one city)	Individual-level data	Vigflow facilitates country collection and reporting of individual case safety reports (ICSR) data. The system shares information with the WHO Vigibase global database.	National Center for Pharmacovigilance, Federal Commission for the Protection against Sanitary Risks COFEPRIS, Ministry of Health	https://vigflow.who-emc.org	Public and Private	Notifications of ADR	Both (possible to separate)	Since 2019 -to date	Spontaneous notification of suspected ADRs by health professionals.
MEXICO	APACHE- ISSSTE	Tablero de Control de Abasto de Insumos para la Salud (Dashboard of Control of Health Supplies)	Publicly and conveniently accessible online	National	Aggregate-level data	The APACHE system covers 907 codes of medications. It was developed as a dashboard to track the supply of medicines in the health facilities and the availability of the key medicines and healing materials in the National Distribution Centre. This tool allows identifying existing problems in the supply chain, including the available stock and purchased medicines.	Institute of Social Security of State Workers (SSSTE)	sistopeque.inssste.gub.mx/	Public	Pharmacy records	Both (possible to separate)	Since 2012 -to date	
MEXICO	SIAM- ISSSTE	Sistema Integral de Abasto de Medicamentos del ISSSTE (Comprehensive Drug Supply System)	Restricted accessibility: the database is only available to the researchers working for the ISSSTE.	National; Regional (province, state, more than one city)	Individual-level data	SIAM is used to control medicines stock, including the storage of medicines, its exchange, and return, thereby preventing shortages of medicines in the health facilities. A recently developed new version of SIAM integrated this system with ISSSTE's Comprehensive Healthcare Registry System (Sistema de Registro Integral de la Atención Médica, ISSSTEMED) that includes electronic health records databases and the central warehouse system (Servicio Integral de Logística y Distribución Sarg de C.V. SARGORA).	Institute of Social Security of State Workers (SSSTE)	http://192.168.2.84 (Internal Network)	Public	Both (Pharmacy and Patients records)	Both (possible to separate)	Since 2013 -to date	
MEXICO	PEPMAE SICOR- ISSSTE	Programa de Estandarización de la Prescripción de Medicamentos de Alta Especialidad (PEPMAE)/ Plataforma del Sistema de Control de Recetas (SCOR) (Program for the Standardization of Prescription of High Specialty Medications (PEPMAE)/ Platform of the System for the Prescriptions Control (SCOR))	Restricted accessibility: the database is only available to the researchers working for the ISSSTE.	National; Regional (province, state, more than one city)	Individual-level data	This database is part of the ISSSTE's Comprehensive Medicine Strategy to assure an adequate supply of medicines and other health products. This internal electronic system controls the dispensing of high-cost and high-specialty medicines for chronic degenerative diseases with a high budget impact. Currently, only high-cost multiple sclerosis and hemophilia therapies are included. The PEPMAE program allows the prescription of highly specialized drugs according to national and international guidelines. All high specialty medications should be prescribed through the Platform of the Control System for Prescriptions (SCOR).	Institute of Social Security of State Workers (SSSTE)	Not available at the public website. Internal network.	Public	Administrative records	Both (possible to separate)	Since 2013 -to date	
MEXICO	SMF- IMSS	Sistema de Información de la consulta de Medicina Familiar (Information System of the Family Medicine Consultations)	Restricted accessibility: the database is only available after obtaining the study protocol registry by the IMSS Research and Ethics Committees.	National, delegation/state and facility levels	Individual-level data	The SMF- IMSS is the Electronic Health Records system that contains the information on patients' consultations at the family medicine clinics. The SMF-databases include information on patient's general characteristics, medical history, cause of consultation codified according to the International Classification of Diseases, Tenth Revision codes (ICD-10), physical examination, orders for laboratory tests, electronic prescriptions (including the names of prescribed medicine, dose and treatment duration), and information on referrals and disability. The use of electronic health records in family medicine clinics is mandatory.	Mexican Institute for Social Security (IMSS)	Not available on the public website. The SMF databases are hosted on an IMSS server and have an IP address on the IMSS's intranet. The system can only be accessed from a computer with the IMSS intranet connection.	Public	Patient records	Ambulatory	Since 2003 -to date	
MEXICO	SICEH- IMSS	Sistema de información de consulta externa de los hospitales de segundo y tercer nivel de atención (Information System of the specialty consultations in secondary and tertiary level hospitals).	Restricted accessibility: the database is only available after obtaining the study protocol registry by the IMSS Research and Ethics Committees.	National, delegation/state and facility levels	Individual-level data	The SICEH- IMSS is the Electronic Health Records system that contains information on patients who had specialty consultation in the secondary and tertiary level hospitals. The SICEH-databases contain information on patient's general characteristics, medical history, cause of consultation codified according to the International Classification of Diseases, Tenth Revision codes (ICD-10), physical examination, orders for laboratory tests, electronic prescriptions (including the names of prescribed medicine, dose and treatment duration), and information on referrals and disability. By August 2018, there were 7.1 million electronic health records of the out-patient specialty consultation in the secondary and tertiary level hospitals.	Mexican Institute of Social Security (IMSS)	Not available on the public website. The SICEH databases are hosted on the IMSS server and have an IP address on the IMSS's intranet. The system can only be accessed from a computer with the IMSS intranet connection.	Public	Patient records	Hospital	Since 2006 -to date	
MEXICO	SAI-Farmacia IMSS	SAI Sistema de Abasto Institucional. Modelo de Farmacia (Institutional Supply System. Pharmacy Module)	Restricted accessibility: the database is only available after obtaining the study protocol registry by the IMSS Research and Ethics Committees.	National, delegation/state and facility levels	Aggregate-level data	"SAI Farmacia" databases are only for internal use. This database is utilized to analyze each medicine's average monthly consumption and plan purchases, and generate regular reports at the health facility, delegation, and national levels. The information of these databases has not been used for research purposes; however, IMSS regulations specify that any information can be requested for research purposes after IMSS Research and Ethics Committees authorization.	Mexican Institute of Social Security (IMSS)	Not available on the public website. The SAI databases are hosted on the IMSS server and have an IP address on the IMSS's intranet. The system can only be accessed from a computer with the IMSS intranet connection.	Public	Administrative records	Not Applicable	Since 2011 -to date	
MEXICO	Compras- IMSS	Portal de compras del Instituto Mexicano del Seguro Social (Purchases portal of the Mexican Institute of Social Security)	Publicly and conveniently accessible online.	National, delegation/state and facility levels	Aggregate-level data	The IMSS Purchases portal was created to inform the IMSS expenses and assure IMSS accountability. The portal contains the information on purchased medicines, healthcare supplies, and services, including those acquired by the tertiary level hospitals.	Mexican Institute of Social Security (IMSS)	http://compras.imss.gob.mx	Public	Other type	Both (possible to separate)	Since 2011 -to date	
MEXICO	SIFAVI- IMSS	Sistema de Farmacovigilancia (Pharmacovigilance System)	Access restricted to the staff who work for the SIFAVI-IMSS.	National, delegation/state and facility levels	Individual-level data	SIFAVI contains individual and aggregated data on the notifications of ADR. The system allows summarizing and reporting ADR information at the facility, delegation, and national levels.	Mexican Institute of Social Security (IMSS)	Not available on the public website. The SIFAVI databases are hosted on the IMSS server and have an IP address on the IMSS's intranet. The system can only be accessed from a computer with the IMSS intranet connection.	Public	Notifications of ADR	Both (possible to separate)	Since 2006 -to date	Notification of suspected ADR by health professionals.
NICARAGUA													
NICARAGUA	GALENO	Galeno (this is the name of database)	Restricted accessibility: the database is only available after obtaining the study protocol authorization.	National	Individual-level data	The information on the management of the medicines supply chain, medical and laboratory products in all its components, except prescriptions and dispensations.	Ministry of Health	Not available publicly, only for the MoH On-line system	Public	Pharmacy records	Both (possible to separate)	Central warehouses and HQ MoH since 2014 -All MoH outreach hospitals: since 2016 -Primary level of care: since 2017	
NICARAGUA	PASGLIM	Programa Automatizado del Sistema de Información para la Gestión Logística de Insumos Médicos (Automatized Program of the Information System for the Logistics Management of Medical Supplies)	Restricted accessibility: the database is only available after obtaining the study protocol authorization.	National; Regional (province, state, more than one city); Municipality (one city); Organization multi-sited	Individual-level data	The information on the management of the medicines supply chain, medical and laboratory products, including forecasting, storage management, and distribution.	Ministry of Health	Not available publicly, only for the MoH Off-line system	Public	Administrative records	Not Applicable	2010-2011	Administrative records (Warehouses)
NICARAGUA	Fleming	Fleming (this is the name of database)	Restricted accessibility: the database is only available to the researchers working for the Nicaraguan Social Security Institute.	National; Regional (province, state, more than one city); Municipality (one city); Organization multi-sited	Individual-level data	The clinical management database includes the information on pharmacy management, prescriptions, and dispensed drugs and links to the clinical files (drugs, medical supplies).	Nicaraguan Social Security Institute (INSS in acronym Spanish)	Not available publicly, only for the MoH On-line system	Public and Private	Both (Pharmacy and Patients records)	Both (possible to separate)	Unknown	
NICARAGUA	Noi-FACEBRA	Farmacovigilancia Centroamericana Datos de Reacciones Adversas (Pharmacovigilance Central American Data on Adverse Events)	Restricted accessibility: the database is only available to the researchers working for the Ministries of Health of Central America and the Dominican Republic.	National; Regional (province, state, more than one city); Municipality (one city); Organization multi-sited	Individual-level data	Reports of adverse drug reactions using the yellow card	Executive Secretary of the Council of the Ministers of Health of Central America and the Dominican Republic	http://www.serviciocentroamericano.net/Pages/sistema.asp?ruta=back_holito	Public and Private	Notifications of ADR	Both (possible to separate)	Unknown	Notifications of suspicious of ADR. Yellow card
PERU													
PERU	CENAFYT	Base de Datos del Sistema Peruano de Farmacovigilancia y Tecnovigilancia (Database of the Peruvian Pharmacovigilance and Technovigilance System (DF/TMEDI))	The process to obtain data is not clear; there is no regulation.	National	Individual-level data	The database contains the ADR reports collected from the healthcare providers (HCP) and MAH using "Reporting" system of the WHO Uppsala Monitoring Centre (UMC).	DIGEMID - National Center of Pharmacovigilance	Not available at the public website.	Public and Private	Notifications of ADR	Both (possible to separate)	Since 2006 -to date	Notifications of suspicious ADR by health care providers
PERU	CRISALUD	Base de Datos Institucional de Farmacovigilancia y Tecnovigilancia de EsSalud (E-Salud Pharmacovigilance Database)	The process to obtain data is not clear; there is no regulation.	National; Regional (province, state, more than one city); Municipality (one city); Organization multi-sited	Individual-level data	The database contains the ADR reports from 390 medical centers of Social Security (EsSalud). This is the individual-level information that is updated daily.	ESSALUD - Institute of Health Technology Assessment and Research (IETS)	Not available at the public website.	Public	Other type	Both (possible to separate)	Since 2015 -to date	Reports of the health care providers (EsSalud workers)
PERU	SGSSESSI	Base de datos de dispensaciones, prescripciones y consumo de EsSalud (Sistema de gestión hospitalaria de EsSalud) (Medication Dispensations, Prescriptions and consumption Database of the EsSalud hospital management system)	The process to obtain data is not clear; there is no regulation.	National; Regional (province, state, more than one city); Municipality (one city); Organization multi-sited	Individual-level data	The database contains the information on the number of prescriptions, dispensed items, and the actual stock of medicines in each pharmacy (medical center) of the EsSalud; the database does not have patient-level information.	ESSALUD - Hospital Management System	Not available at the public website.	Public	Pharmacy records	Hospital only	Since 2011 -to date	
PERU	ENSSA	Encuesta nacional socioeconómica de acceso a la salud para asegurados de ESSALUD (National socioeconomic survey of access to health for ESSALUD affiliates)	The process to obtain data is not clear; there is no regulation.	National; Regional (province, state, more than one city); Municipality (one city); Organization multi-sited	Individual-level data	The ENSSA was applied in 2015, to roughly 63000 patients covered by EsSalud in Peru. The survey provides information about demographic characteristics, chronic diseases, health services knowledge and use, medication consumption, and user satisfaction, among others.	ESSALUD - Central Planning and Budget Management	Not available at the public website.	Public	Survey	Ambulatory only	2015	
PERU	ENSUSALUD	Encuesta Nacional de Satisfacción de Usuarios en Salud 2016 (National Survey of User Satisfaction with Health Services)	Publicly and conveniently accessible online.	National	Aggregate-level data	The ENSUSALUD database includes the information on the face-to-face interviews with healthcare providers and users of pharmacies and medical centers about Peruvian Health System performance during 2016. It contains data about demographic characteristics, prescriptions by the pharmacists, and consumption of purchased medicines.	Ministry of Health (MINSU) - National Superintendency of Health (SUSALUD) and National Institute of Statistics and Informatics (INEI)	http://portal.ensusalud.gob.pe/consultas-base-de-datos-2016/	Public and Private	Survey	Both (possible to separate)	2016	
PERU	ICI Table - SISMED software	Información de Consumo Integrado (ICI) del Sistema Integrado de Suministro de Medicamentos e Insumo Médico-Quirúrgico (SISMED) (Integrated Consumption Information (ICI) of the Integrated System for the Supply of Medicines and Medical-Surgical Supplies)	The process to obtain data is not clear; there is no regulation.	National	Aggregate-level data	ICI table of the SISMED provides the information on the stock, sales, and numbers of the dispensed medical products and medical devices at the Ministry of Health (MINSU). The information allows calculating the average supply and consumption per medicine on a monthly basis per each health center.	Ministry of Health (MINSU) - Directorate for the supply of strategic health resources - CENARES - MINSU	https://appportal.minsa.gob.pe/consultas/portal/sumed/RepPrecMedicamentos.aspx	Public	Pharmacy records	Both (possible to separate)	Since 2010 -to date	
PERU	EDI Table - SISMED software	Tabla del Informe de Distribución Integrado (IDI) del Sistema Integrado de Suministro de Medicamentos e Insumo Médico-Quirúrgico (Informe de Distribución Integrado (IDI) of the Integrated System for the Supply of Medicines and Medical-Surgical Supplies)	The process to obtain data is not clear; there is no regulation.	National	Aggregate-level data	IDI table of the SISMED provides the information on the medical products stock movements at the Ministry of Health (MINSU), including dates and quantities; the information is updated on a daily basis.	Ministry of Health (MINSU) - Directorate for the supply of strategic health resources - CENARES - MINSU	https://appportal.minsa.gob.pe/consultas/portal/sumed/RepPrecMedicamentos.aspx	Public	Administrative records	Both (possible to separate)	Since 2010 -to date	Administrative records. Reports of drug inventories of the public health facilities
URUGUAY													
URUGUAY	UCA	Unidad Centralizada de Adquisiciones (Centralized Procurement Unit)	Publicly and conveniently accessible online.	National	Individual-level data	The databases provide the information on the medical products and their codes and amounts acquired by the Centralized Procurement Unit on behalf of the institutions of the National Public System.	Ministry of Economy and Finance	http://uca.mef.gub.uy/	Public	Pharmacy records	Both (impossible to separate)	Since 2002 -to date	
URUGUAY	ACCE	Agencia de Compras y Contrataciones del Estado (State Procurement and Contracting Agency)	Publicly and conveniently accessible online.	National	Individual-level data	The State Procurement and Contracting Agency is a government organization that focuses on the improvement of management and transparency of the procurement and contracting system of the public sector, including purchases of medicines.	Presidency of the Republic	www.comprasestatales.gub.uy	Public	Wholesaler	Both (impossible to separate)	Since 2012 -to date	
URUGUAY	ALN y CEFA	Asociación de Laboratorios Industriales y Cámara de Especialidades Farmacéuticas (Association of National Laboratories and Chamber of Pharmaceutical Specialties)	Data not available for public use.	National	Aggregate-level data	The CEFA encloses international industries located in Uruguay. The database provides information on pharmacovigilance and the number of medicines manufactured and distributed by these industries.	National Pharmaceutical companies (governmental and private companies)	http://www.aln.com.uy/ ; http://www.cefa.uy/	Public and Private	Wholesaler	Both (impossible to separate)	ALN: since 1942 CEFA: since 1954	
URUGUAY	ASSE - SNS	Administración de los Servicios de Salud del Estado del Sistema Nacional Integrado de Salud. (State Health Services Administration of the National Integrated Health System)	Access to the information depends on the country-specific legislation - The freedom of Information Act.	National; Regional (province, state, more than one city); Municipality (one city); Organization multi-sited	Individual-level data	The databases of the State Health Services Administration of the National Integrated Health System that include information on patients' medication.	National Institute (decentralized institution)	www.asse.com.uy	Public	Pharmacy records	Both (impossible to separate)	Since 2008 -to date	
URUGUAY	CASMI- MUCAM Asocion Española - SNS	Instituciones privadas y públicas (excluida ASSE) del Sistema Nacional Integrado de Salud (Private and public institutions (excluding ASSE) of the National Integrated Health System)	Data not available for public use.	National; Regional (province, state, more than one city); Municipality (one city); Organization multi-sited	Individual-level data	Information from the health care providers on patients' healthcare, including data about health conditions and medications prescribed and dispensed.	Public and Private providers	http://casmi.com.uy/ ; https://www.medicinarguy.com.uy/ ; https://www.asap.com.uy/	Public and Private	Unknown	Unknown	Unknown	

Country	Data source acronym	Full Name data source	Accessibility	Geographic Granularity	Level Data	Description of data sources	Custodian	Website	Sector	Sources of data	Healthcare setting: ambulatory or hospital	Years Coverage	Explanation about the data or settings		
URUGUAY	DSC - MSP	División de Sustancias Controladas - Ministerio de Salud Pública (Controlled Substances Division - Ministry of Public Health)	Access to the information depends on the country-specific legislation - The freedom of Information Act.	National	Individual-level data	Data on controlled substances	Ministry of Public Health (MSP)	www.msp.gub.uy	Public and Private	Pharmacy records	Both (impossible to separate)	Since 2014 to date			
URUGUAY	SNFV	Sistema Nacional de Farmacovigilancia (National Pharmacovigilance System)	Access to the information depends on the country-specific legislation - The freedom of Information Act.	National; Regional (province, state, more than one city)	Individual-level data	National information on adverse drug reactions obtained through the Uruguay - Uppsala Notification system.	Ministry of Public Health (MSP)	https://www.gub.uy/ministerio-salud-publica/unidad-de-farmacovigilancia	Public and Private	Notifications of ADR	Both (impossible to separate)	Since 2005 to date	Notification of suspicious ADR by health care providers		
URUGUAY	SINADI - MSP	Sistema Nacional de Información - Ministerio de Salud Pública (National Information System of the Ministry of Health)	Publicly and conveniently accessible online.	National; Regional (province, state, more than one city)	Individual-level data	The National Information System of the Ministry of Public Health receives periodic information from the health institutions in the country, including data on medication.	Ministry of Public Health (MSP)	https://www.gub.uy/ministerio-salud-publica/	Public and Private	Administrative records	Both (possible to separate)	Since 2008 to date	Administrative records. Data from medication consumptions by health institutions.		
URUGUAY	FNR	Fondo Nacional de Recursos (National Fund of Resources)	Access to the information depends on the country-specific legislation - The freedom of Information Act.	National; Regional (province, state, more than one city)	Individual-level data	The database of the National Fund of Resources, which is a non-state public institution, which provides financial coverage for highly specialized medical procedures and high-cost medicines for the users of the National Integrated Health System in the country.	A non-State public institution administered by an Honorary Administrative Commission, composed of nine members defined by law: three representatives of the Ministry of Public Health (one of whom is the Minister, who chairs the Commission), a representative of the BPS (Social Security Institute), a representative of the Ministry of the Economy and Finance, three representatives of the integral providers, and a representative of the DAAE (Institutes of Highly Specialized Medicine)	http://www.fnr.gub.uy/	Public and Private	Pharmacy records	Both (impossible to separate)	Since 1980 to date			