PRAIS — Regional Platform on Access and Innovation for Health Technologies

Pan American Health Organization | World Health Organization Americas

PRAIS Bulletin

Year 2, N. 1, April 2015.

National Regulatory System: organizational structure and legal basis, and the provisions for medicines regulation in the Americas

In this issue:

1. Introduction and general considerations 1
2. Characterization of the regulatory system profile and degree of implementation of the indicators 2
3. Characterization level of implementation, by areas of interest and regulatory system indicators 3
4. Characterization of the degree of implementation associated with regulatory system indicators, by geographical subregion 6
5. Priority areas according to the implementation levels for regulatory system indicators 6
6. Opportunities to improve the organizational structure of the regulatory systems in the Region of the Americas 8
7. Limitations of data and analysis 8
8. Discussion and recommendations 9

PRAIS Bulletin is a digital publication produced by the Medicines and Health Technology Unit of the PAHO/WHO.

The first issue was published in March 2014. Its periodicity depends on the availability of updated country data within the Observatory tool at the Regional Platform on Access and Innovation for Health Technologies (PRAIS).

PRAIS Bulletin editor: Murilo Freitas Dias.

525 23rd Street, NW, Washington, D.C 20037, USA. Tel.: +1 (202) 974-3000

1. Introduction and general considerations

• Assessing countries' strengths and opportunities for improving regulatory systems can help strengthen their capacities for regulating health products in the Americas. Employing a standardized methodology, the PRAIS Bulletin aims to provide an analysis of regulatory capacities in the Region and thus, to contribute to improve access to safe, effective and quality assured health technologies.

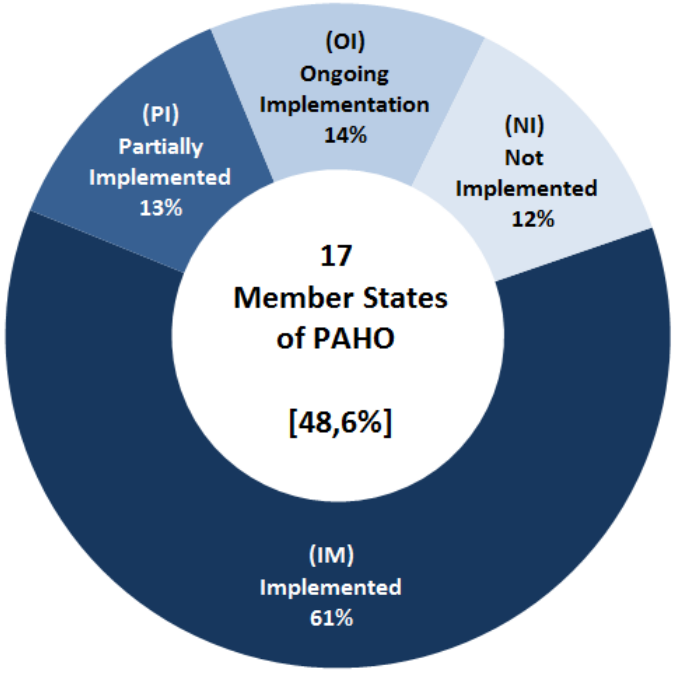
• While the first issue of this bulletin presented an overview of the regulatory system based on an analysis of "basic" indicators used to develop each country's pharmaceutical profile, this and subsequent issues will examine "advanced" indicators grouped by area of interest to provide an (in -depth) analysis of existing regulatory capacities.

• The advanced indicators are part of the tool used for the assessment of regulatory systems that was approved by the Directing Council of the Pan American Health Organization (PAHO) in 2010 (Resolution CD50.R9). The assessment processes support the strengthening of national regulatory authorities (NRAs) through the establishment of institutional development plans (IDPs).

• All of the modules in the tool will be used as input for the bulletin. In this issue, the tool's second module, "national regulatory system", provides for the examination of a NRA's organizational structure and legal basis, and the provisions that are in place for medicines regulation and enforcement activities.

• This bulletin presents the analysis of a selection of 36 of the module's indicators from a total of 108 in all. The data presented here derive from assessment of these indicators in 17 regulatory authorities in the Region (representing 48.6% of the 35 PAHO Member States), either through a self-assessment process performed by the NRAs themselves with assistance from PAHO (5/17, 29%), or through formal evaluations conducted by PAHO (12/17, 71%).

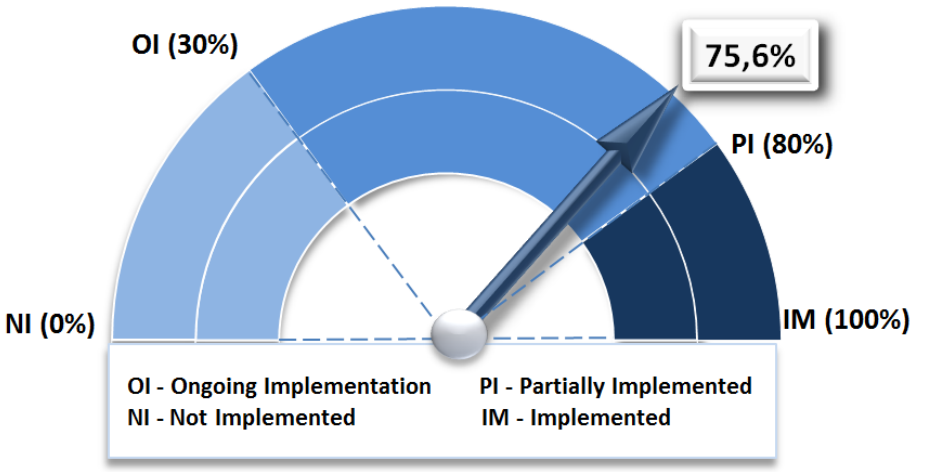
Figure 1. Regulatory system profile for 17 National Regulatory Authorities measured by the implementation level of 36 indicators in module "National Regulatory System". (April 2015)



Source: the PRAIS Observatory, 2015

2. Characterization of the regulatory system profile and degree of implementation of the indicators

Figure 2. Degree of implementation by 17 National Regulatory Authorities, as measured by 36 indicators of the National Regulatory System module (April 2015).



Source: the PRAIS Observatory, 2015

• The indicators for the organizational structure seek to show whether the organizational system and the legal and regulatory structure in which an NRA operates allow the institution to properly perform its essential regulatory functions. Though the organizational models on which NRAs are based may vary among countries, it is expected in all cases that the regulation of medicines and other health products be conducted by official government entities that have the necessary authority and competencies for the task, and whose responsibilities, structure, and functions are clearly based on national codes, laws, and norms. Thus, governments need to create mechanisms for the proper functioning of NRAs, such as measures to address potential conflicts of interest, codes of personal conduct for their staff, transparency of work and information management, and the corresponding accountability mechanisms.

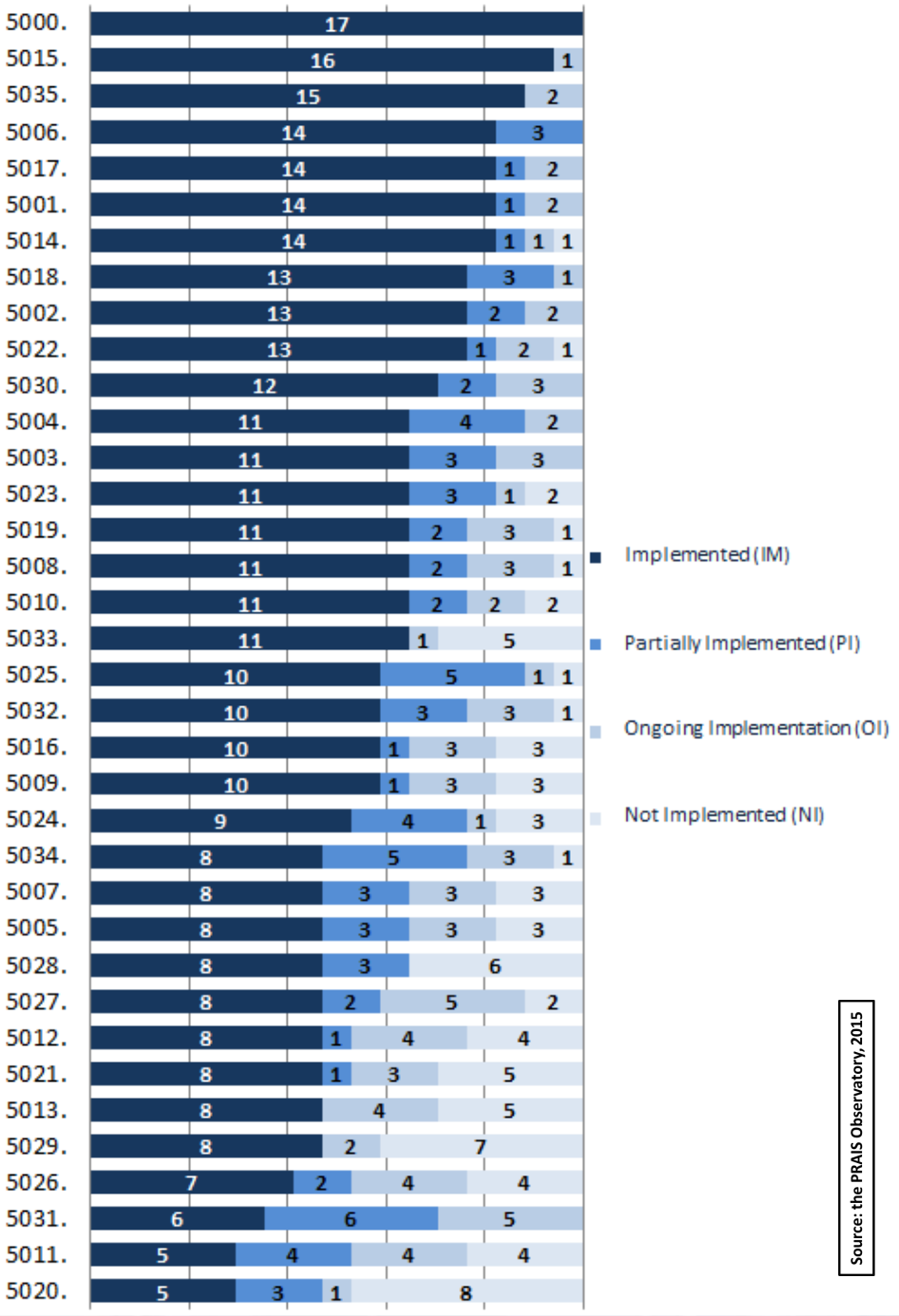
• As a way of representing the degree of implementation of the selected indicators, values were assigned for the achievement of each indicator, using the following scale: not implemented (***NI***), ongoing implementation (***OI***), partially implemented (***PI***), or implemented (***IM***). An indicator is deemed to have the value ***NI*** when there is no evidence of activity, documentation, or legal basis for the indicator. The value ***OI*** indicates that the country is executing activities to formulate or establish a legal basis or organizational structure, but that there is yet no evidence of results associated with these activities. For the indicator to have the value ***PI***, there must be evidence that the NRA has elements (procedures, documentation, and management and information systems, etc.) and capacity to carry out the processes to which the indicator refers, but the authority has only limited experience and/or a limited number of processes documented. Finally, ***IM*** means that the NRA meets all the criteria described for ***PI***, and in addition has demonstrated and documented consistency of results for the relevant regulatory activities over time.

• Figure 1 shows the profile of the implementation of the indicators for the 17 countries evaluated, based on the rating scale described above. The countries met the ***IM*** criteria in 61% of the indicators and the ***PI*** criteria in 13%, while the ***OI*** figure was 14% and the ***NI*** 12%.

• Although these percentages point to a positive trend in achievement of the indicators, it is important to note that the rating scale for implementation of an indicator is not linear. If the extreme values, ***NI*** and ***IM***, represent zero and 100% on a scale, we propose that the two intermediate values, ***OI*** and ***PI***, should represent 30% and 80% respectively in terms of implementation levels. Though empirical, these values do reflect the relative distance between the different implementation levels. Figure 2 provides a graphic view of the weighted average of implementation for the indicators in the 17 countries evaluated. Thus, the analysis indicates that the countries' implementation of this module's indicators averaged 75.6%.

3. Characterization level of implementation, by areas of interest and regulatory system indicators

Figure 3. Rating scale for implementation of the indicators of the National Regulatory System module (April 2015).



• Figure 3 and Table 1 shows the levels of implementation according to this module's areas and indicators, as well as the number of countries (out of the 17 examined) that reached each score. The indicators are grouped by category or area of interest.

• The degree of implementation varies: while the indicators of organization and structure show that all countries have placed pharmaceutical regulation under the jurisdiction of the Ministry of Health. The analysis reveals, for instance, low levels of implementation associated with the quality management system.

• Figure 3 shows the proportion of NRAs scoring at each level for each of the 36 indicators. They are presented in decreasing order of percentage of implementation. The three indicators showing the highest degrees of implementation tell us that a high proportion of the countries evaluated have effectively established the jurisdiction of the Ministry of Health as the competent authority for the regulation products (5000), that they publish the rates and fees for the services that the NRA provides (5015), and that the authority has a website as part of its information management system (5035). In general, the indicators measured as ***IM*** and ***PI*** suggest that the NRA evaluated has reached adequate levels of functionality(1) for the indicator's parameters, or is moving in the right direction.

(1) **Functionality:*** competent, efficient execution of a set of activities as part of regulatory and enforcement functions designed to ensure the quality, safety, and efficacy of medicines. *Based on "Functional Level of the National Regulatory Authority," Annex A, CD50/20, Rev. 1, 18 August 2010, p. 3.

3. Characterization level of implementation, by areas of interest and regulatory system indicators (cont.)

Table 1. Level of implementation by area of interest for 36 indicators related to the "National Regulatory System" in 17 National Regulatory Authorities (April 2015).

Number of NRA

Areas	Indicators	IM	PI	OI	NI
Organization and structure	5000. Pharmaceutical regulation is under the jurisdiction of the Ministry of Health and other organs (institutions, agencies, regulatory authorities) at the same or different levels of government.	17	0	0	0
	5001. The responsibilities, functions, organization, powers, and structure of the organization(s) responsible for pharmaceutical and health-technology regulation are clearly defined in legal documents and supplementary documents, in particular as relates to the competencies and objectives associated with the pharmaceutical regulation that it/they control(s), such as categories of regulated products and regulatory functions.	14	1	2	0
	5002. Legislation defines the institutions involved in the pharmaceutical regulatory system, their authority, functions, roles, responsibilities, and powers.	13	2	2	0
Legal basis	5003. Legislation defines the creation of the NRA, its mission, and its terms of reference, as well as its scope, functions, and responsibilities.	11	3	3	0
	5004. The Regulatory Authority responsible for implementing and enforcing the regulations is involved in developing them.	11	4	2	0
	5005. During the process of developing legislation and regulations, there are mechanisms through which various sectors of civil society are involved, such as NGOs, health sector representatives, industry, consumers, patients, and other stakeholders.	8	3	3	3
	5006. The legislation and regulations are publicly available for the stakeholders to whom they apply, and adequate means and channels of communication are available to make the legislation and regulations known.	14	3	0	0
	5007. The legislation gives the NRA authority to bring in experts and create committees, and to define their functions and the situations in which they are to be brought in or created.	8	3	3	3
Administrative model	5008. The organizational structure of the NRA includes a governing board, executive staff, and administrative committee or organ responsible for creating and/or adopting the strategic development plan.	11	2	3	1
Institutional development	5009. The NRA has an institutional development plan that is implemented and up to date.	10	1	3	3
	5010. The general objectives of the NRA are established and have been broken down into specific objectives, with timeframes for the different regulatory functions.	11	2	2	2
Quality management system	5011. The NRA has implemented a quality management system (QMS) for all regulatory processes.	5	4	4	4
	5012. The quality management system is based on or recognizes reference standards (WHO, PIC/S, ISO, etc.).	8	1	4	4
	5013. The documentation system needed to establish, implement, and maintain the QMS has been created (quality manual, records, policies, quality procedures, operational procedures).	8	0	4	5
Funding of the NRA	5014. The sources of funding for the NRA to carry out all its regulatory functions have been established.	14	1	1	1
	5015. The rates, fees, charges, or costs that must be paid for the NRA's services are published.	16	0	1	0
	5016. The NRA has the authority to collect funds and to use them internally.	10	1	3	3
Human resources management	5017. There is an organizational chart of the NRA's structure.	14	1	2	0
	5018. The obligations, functions, and responsibilities of key staff are set forth in their job descriptions.	13	3	1	0

Source: the PRAIS Observatory, 2015

3. Characterization level of implementation, by areas of interest and regulatory system indicators (cont.)

Table 1. Implementation by area of interest for 36 indicators measurement of the "National Regulatory System" module by 17 National Regulatory Authorities by, by area (April 2015). (cont.)

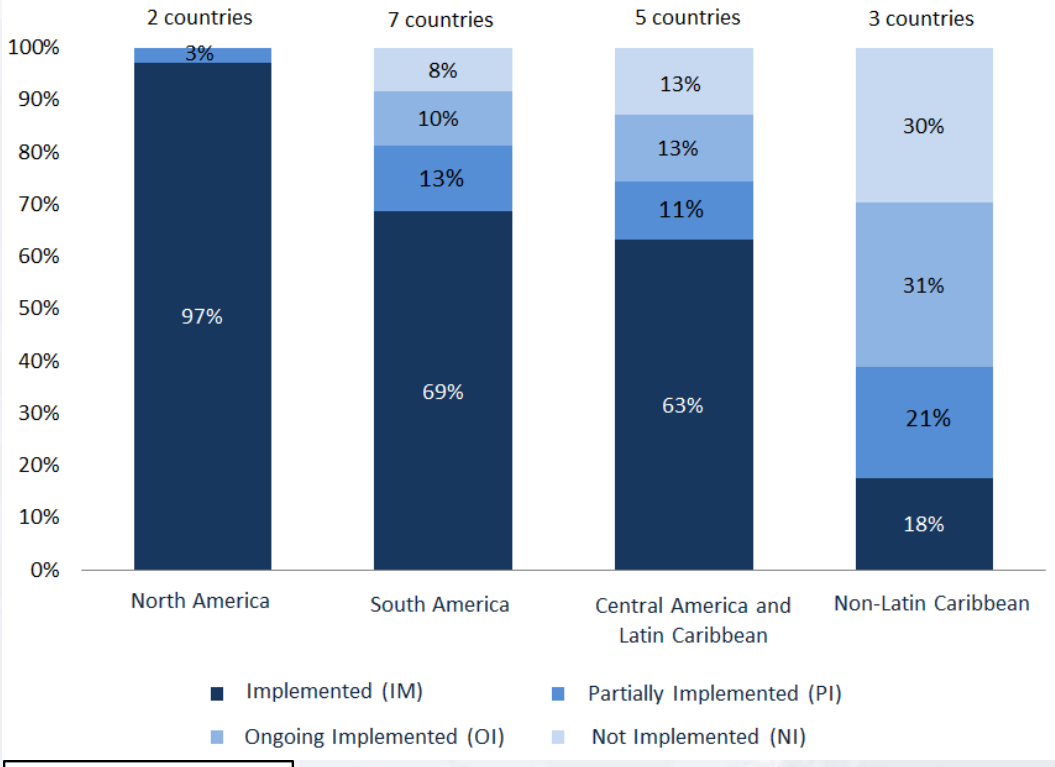
Number of NRA

Areas	Indicators	IM	PI	OI	NI
External committees and experts	5019. The NRA has an Advisory Committee (which may include in-house specialists and external experts) that is involved in the NRA's regulatory processes.	11	2	3	1
	5020. There is a written policy/procedure for selecting and bringing in external experts, in which candidates are selected by a panel or jury whose final decision is made public.	5	3	1	8
	5021. There is a general policy on potential conflicts of interest that applies to external experts brought in on an ad hoc basis as well as to members of the Advisory Committee.	8	1	3	5
	5022. The NRA participates in a global network with recognized scientific associations and professional groups.	13	1	2	1
Transparency and confidentiality	5023. Legislation includes requirements to ensure confidentiality and transparency in the work of the NRA.	11	3	1	2
	5024. There is a documented policy on public access to information, with defined exemptions/exceptions.	9	4	1	3
	5025. Information on legislation, regulation, procedures, and guidelines is available to the public on websites and through other mechanisms that ensure that such information is satisfactorily available and up to date.	10	5	1	1
	5026. Information on decisions is available to the public on a timely basis, and includes negative decisions on specific cases (when legislation so allows).	7	2	4	4
	5027. The NRA holds meetings regularly with stakeholders and creates opportunities for consultation with the general public, such as days when it is open to the public.	8	2	5	2
Independence and impartiality	5028. There is a documented code of conduct for staff members involved in regulatory functions.	8	3	0	6
	5029. There is an internal policy/established mechanism regarding potential conflicts of interest that applies to members of the staff and is updated with appropriate frequency.	8	0	2	7
	5030. The NRA maintains independence from researchers, producers, distributors, and drug wholesalers.	12	2	3	0
Infrastructure	5031. The NRA's spaces, work environment, and room for filing documentation are adequate.	6	6	5	0
	5032. The NRA has the appropriate equipment for conducting its regulatory functions.	10	3	3	1
Monitoring and control	5033. Regulatory functions and processes are monitored and reviewed regularly and systematically to identify problems, gaps, weaknesses, and inconsistencies within the NRA.	11	0	1	5
Information management system	5034. The NRA uses computer systems to manage data efficiently so that the information is collected, entered into a database, and put in reports where it can be consulted.	8	5	3	1
	5035. The NRA has its own website, or has an agreement to use another institution's.	15	0	2	0

Source: the PRAIS Observatory, 2015

4. Characterization of the degree of implementation associated with regulatory system indicators, by geographical subregion

Figure 4. Rating of implementation of the indicators of the National Regulatory System module, by subregions of the Americas (April 2015).



Source: the PRAIS Observatory, 2015

• Figure 4 depicts the implementation levels of the 36 indicators in by the different geographical subregions of the Americas.

• As showed, there are noticeable variations in implementation levels, and pronounced asymmetries between subregions. In the North American subregion, 97% of the indicators score at the ***IM*** level, while the percentage for the non-Latin Caribbean countries is 18%. However, it is important to stress the limitations of this analysis. Firstly, the number of countries listed per subregions is not equal, and the countries in each subregion do not include all the countries that belong to the geographical area. Secondly, levels of implementation by country within a single subregion can range widely. Nevertheless, this analysis allows one to infer which subregions have the greatest needs for strength of their regulatory systems.

5. Priority areas according to the implementation levels for regulatory system indicators

• The indicators with values of ***NI*** or ***OI*** point to major gaps or delays in developing the legal and/or organizational frameworks that affect regulatory functionality. The indicators with these values thus spotlight areas where existing capacities need to be strengthened, and represent the greatest opportunities to improve regulatory competencies. Figure 5 depicts the results for the 36 indicators and the data have been arranged in decreasing frequency of ***NI***.

• The values above the median (Q2) point to areas in which there is a strong need for regulatory systems strengthening, and where there are needs for significant improvement of regulatory functionality (5020, 5029, 5013, 5021, 5011, 5012, 5026, 5027, 5028, 5033, 5005, 5007, 5009, 5016, and 5031). These areas should be prioritized in the technical cooperation programs.

• Grouping the indicators by areas of interest shows the following:

  • Indicators 5026, 5027, 5028, and 5029 relate to the principles of independence and impartiality, transparency, and confidentiality that an NRA should embrace. Figure 5 shows that a large number of the countries have a value of ***NI*** for this indicator. For indicator 5029, for example, which shows whether an internal policy or mechanisms are in place to manage potential conflicts of interest within the NRA, 7 countries scored ***NI*** and 2 scored ***OI***, out of the 17 NRAs evaluated.

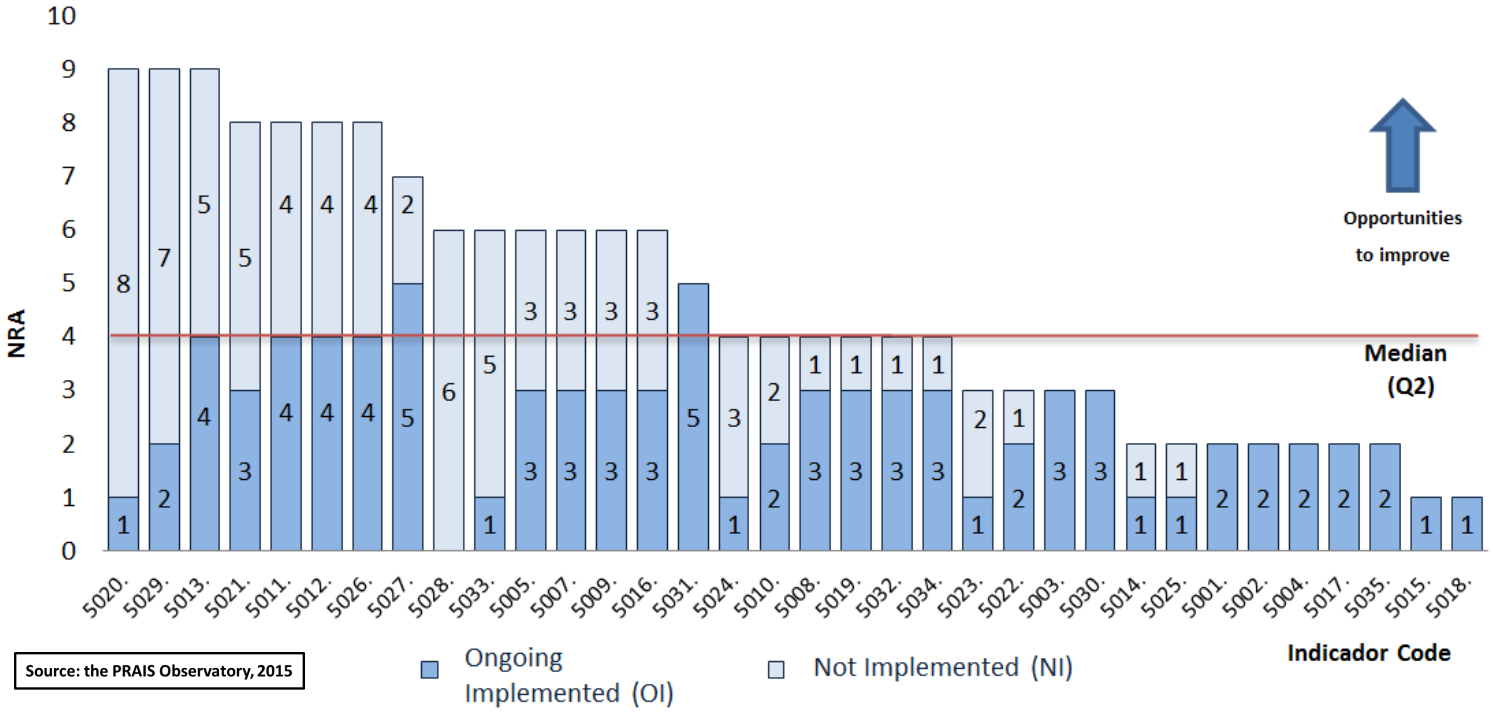
• Indicators 5011, 5012, and 5013 are associated with the development and implementation of a quality management system. The findings show that 5 countries out of the 17 evaluated were measured as ***NI***, while 4 of the 17 were scored as ***OI***. Indicators 5020 and 5021 relate to the external committees and experts involved in regulatory processes, their selection and appointment, and the management of conflicts of interest. Out of 17 countries, 8 have a value of ***NI*** for indicator 5020, while 1 of the 17 scores ***OI***. This indicator relates to the standardization and transparency of the processes involved in selecting and bringing in external experts.

• Indicators 5005, 5007, and 5009 relate to developing and defining the legal bases under which an NRA functions, and to establishing institutional development plans. The values found for these indicators show 3 countries achieved ***NI*** and 3 achieved ***OI*** out of a total of 17.

• Indicator 5016 reflects the capacity of an NRA for collecting and internally reinvesting the funds generated from regulatory processes in a way that contributes to the sustainability of the regulatory system. Of a total of 17 countries, 6 have values of ***NI*** (3 countries) or ***OI*** (3 countries).

• Of a total of 17 countries, 5 have values of ***NI*** and 1 ***OI*** for indicator 5033, which is associated with the monitoring and enforcement activities that a regulatory entity should exert.

Figure 5. Priority areas: number of "not implemented" and "ongoing implementation" indicators of the National Regulatory System module in 17 National Regulatory Authorities (April 2015).



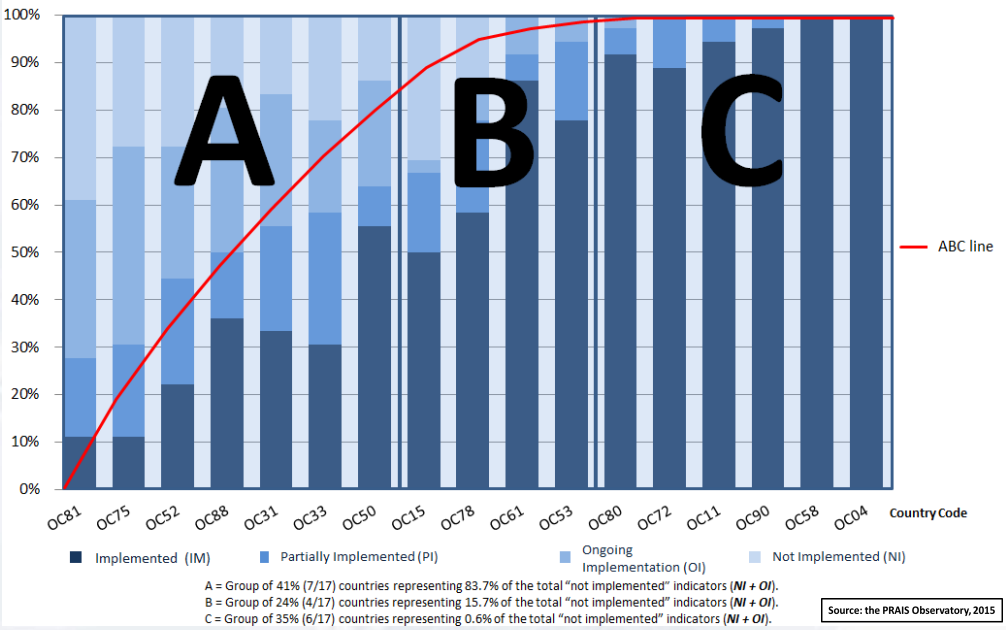
Source: the PRAIS Observatory, 2015

6. Opportunities to improve the organizational structure of the regulatory systems in the Region of the Americas

• If a country is to improve its regulatory capacity, it must prioritize areas of work and actions in accordance with the IDPs towards the goal of achieving 100% ***IM***, for implementation the indicators of the module, and that, regardless of the country's initial situation, it can advance towards this goal (figure 6).

• In order to determine groups of priority countries and optimize the potential impact of improvements on the organization of the regulatory system, a Pareto chart was used, placing countries according to level of implementation of the indicators (The results of the analysis by country are shown with random codes in order to safeguard confidentiality.):

Figure 6. Pareto analysis of opportunities for improvement in 17 National Regulatory Authorities (April 2015).



- 7 countries in group A (83% ***NI*** + ***OI***) should be prioritized for technical cooperation in the Region, since they have a major need for strengthening areas related to quality management systems, external committees and experts, independence and impartiality.
- The 4 countries in group B (approximately 16% ***NI*** + ***OI***) should continue and deepen their efforts towards the implementation of indicators related to external committees and experts, independence and impartiality, and quality management systems.
- The challenge for the 6 countries in group C (less than 1% ***NI*** + ***OI***) is to maintain their degree of implementation and work on improving their competencies and processes as a part of the ongoing improvement of their systems, thus, enhancing their regulatory capacities. In addition, these countries have enormous potential for strengthening regional regulatory capacities, through cooperation and collaboration with other countries with lesser capacities.

7. Limitations of data and analysis

• This analysis of the organizational structure and legal/regulatory bases for medicines regulation has the following methodological limitations:

- Given the complexity of the processes involved, the methodology is considered to have limitations due to differences in the granularity and timing of the data available at the time of the assessment.
- The various methods used to collect data and information, such as field evaluations and self-evaluations assisted by PAHO, can result in variability in the scoring of the indicators.
- These data do not assess how well the indicators are implemented by an NRA.
- The data is sourced form a sample of 17 countries, which constitute 48.6% of a total of 35 Member States in the Region of the Americas, though this is a significant number of countries.

8. Discussion and recommendations

• This bulletin provides an overview of the regulatory system based on an analysis of indicators that measure existing regulatory capacities. The analysis uses "advanced" areas and indicators relating to current organizational structure and legal and regulatory bases for health technologies regulation and inspection.

• As mentioned above, to achieve regulatory functionality, the government should ensure that the regulation of medicines and other health products be conducted by official entities with delegated authority that act according to the principles of independence, ethicality and transparency, and that have the core competencies needed to carry out their mission.

• The analysis presented in this bulletin shows that the regional weighted average of implementation of 36 regulatory indicators related to organizational structure was 75.6% for the 17 countries evaluated. This indicates that in the Region there is an opportunity to improve the overall level of organization of the systems. It also provides a baseline for monitoring progress in this area.

• The data show marked variability between the areas, countries, and subregions analyzed. This heterogeneity should be considered when defining priority countries and areas within the Region. Technical cooperation should aim to reduce the asymmetries between countries.

• The indicators with the highest levels of implementation show that in all cases national health authorities have jurisdiction over the regulation of health products. It indicates the existence of the legal basis for the performance of regulatory functions.

• NRAs require resources to maintain structure and carry out functions. The analysis shows that a percentage of NRAs examined (6/17, 35%) lack the capacity to reinvest the funds that they collect in the form of payments for their services. This could indicate a weakness in terms of achieving sustainability.

• Laws, standards, and guidelines should be established for all regulatory functions. It is critical to stress the health impact of the legal tools that form the basis for medicines regulation. Because of the importance of these legal tools for regulatory functioning, and consequently for public health, NRAs should be critical stakeholders in generating and implementing them. Even with the considerable advances that the Americas have made in this area, there are still enormous asymmetries in the Region in the adoption of good regulatory practices, which constitute a key element for transparency of regulatory processes.

• Another gap revealed by this analysis is the lack of robust quality management systems in a number of countries. Such systems make it possible to harmonize regulatory processes so that they are documented, consistent, and susceptible to monitoring. They also make it possible to detect problems and to establish a plan for ongoing improvement of the system. Hence, it is important that all the NRAs in the Region invest resources to ensure adequate quality management systems.

• A variety of strategies can be adopted to improve indicator achievement, based on the findings, for example: developing of strategic projects for regulatory capacity development by subregion (figure 4); prioritizing indicators (or groups of indicators) that point to lower levels of implementation (table 1 and figure 5); or prioritizing blocks of countries that have the same level of implementation for a given indicator (figure 6).

• The information and analysis provided in this bulletin will contribute to the preparation of institutional development plans in the countries of the Region. Such plans should address the weaknesses identified through this analysis. Although national or subregional contexts may call for different organizational models, the comparative analysis of subregions and countries makes it possible to facilitate cooperation between countries. The gaps, asymmetries, and opportunities for improvement identified should be addressed by joint action on the part of national authorities and the Region's relevant stakeholders. PAHO/WHO will continue to provide support and technical cooperation to ensure access to safe, efficacious, and quality-assured medicines for the population of the Region. Efficient regulatory systems contributes to achieving a higher level of well-being and health for the population, while supporting progress toward the goal of universal access to health and universal health coverage.

About the PRAIS Bulletin

• PRAIS Bulletin contains a set of data from countries that provide information for profiles of: access to health technologies; intellectual property management; health technology governance; research, development, and innovation in health technology; and the regulation of drugs and biologicals.

• These profiles are made up of basic and advanced indicators, selected according to their level of importance, simplicity, access, sustainability, and timeliness, in order to reflect the regional situation and regional performance in health technologies.

• The basic medicines regulatory indicators were selected with a view to providing the basic information necessary for a general understanding of a country's performance, based on the frequency of yes/no responses from "Pharmaceutical Country Profile," WHO document.

• The advanced medicines regulatory indicators stand out for their specificity, complexity, or fine detail, allowing a deeper evaluation of the issues. This indicators were chosen from the "Manual for the assessment of national regulatory authorities of regional reference for basic and biologicals, 2011" PAHO. Both basic and advanced indicators were presented to PANDRH Steering Committee in 2011 and approved as a data collection tool.

• PRAIS was officially launched on May 7, 2012, year when the Observatory had regulatory data from 8 countries and has been increasing, adding data from Member States and participant states of the Americans.

This publication was made possible only by health authorities and/ or national regulatory authorities collaboration that provided data either by official documents of the WHO / PAHO or field assessments of its regulatory capacities.