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# Application of research and information to human resources policies: regional goals for the Americas

Aplicação de pesquisa e informação para políticas de recursos humanos: as metas regionais para as américas

Aplicación de investigación e información para políticas de recursos

humanos: las metas regionales para las américas

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#### **ABSTRACT**

Objective: Report experiences involving the use of research and information systems to support national human resources policies through benchmarking between different countries, with comparisons over time and between similar countries or regions. Method: In 2007, the Pan American Health Organization (PAHO) promoted a set of goals for all the countries in the Americas to improve the situation of health human resources, using a uniform methodology and research process carried out by Observatories of Human Resources. Results: The analysis focused on the progress made in relation to the main challenges in the Southern Cone countries, with a special emphasis on Brazil, noting improvements in the distribution of professionals in the regions. Conclusion: These experiences showed how research and the use of information systems can stimulate the expansion of good practices in the training, retention and development of the health workforce in the Americas.

# **DESCRIPTORS**

Health Human Resources; Health Personnel; Health Policy; Information Systems.

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# INTRODUCTION

At the end of the last century and the beginning of this one, major transformations took place in the health systems of many countries. These transformations generally focused on the structure of health systems, with an emphasis on decentralization, separation of functions, provision of services, introduction of market mechanisms and changes in the role of the State<sup>(1)</sup>.

However, various problems have persisted, and in some cases increased, such as unequal access to services, negligence in aspects involving collective health and difficulties on the part of health authorities in leading the sector, representing points for a pending regional agenda over the next few years.

The problems on this unfinished agenda are almost always generically associated with human resources. The structural changes have run their limit and countries are now starting to realize that without changes in the behavior and capabilities of health workers, the reforms will not achieve their purpose or, worse yet, may produce effects contrary to those desired<sup>(2-3)</sup>.

The interaction between planned reforms and the actions of those who should implement them have gradually led to the recognition that the workforce is essential for full implementation of health policies, whether in terms of actions to promote care and services, training actions and activities, or advocating and encouraging civic participation to achieve the health objectives of all the countries<sup>(4)</sup>.

There is an awareness now that adapting the workforce to the health needs of the population is a complex endeavor, which must take into consideration epidemiological and sociodemographic changes in the countries and requires ongoing investments, as well as a mid- and long-term action plan. Due to the diversity of the countries, actions are needed that consider the specificity of each, but at the same time are able to promote integration and technical cooperation.

The process for Measurement of Regional Goals for Human Resources for the Americas in the period 2007-2015 proposes the adoption of clear indicators that can be applied internationally to measure the progress of this initiative, while also seeking to meet the commitments assumed by the countries from the region at the 7th Regional Meeting of the Observatories of Human Resources in Health, held in Toronto, Canada in October 2005<sup>(5)</sup>.

The objective of this article is to present the main results and suggestions from the measurement of regional goals for human resources, taking into account the critical challenges identified through studies from the Observatories of Human Resources of the Southern Cone<sup>(6)</sup>. Due to the specific interest in Brazil, this country's results and comparisons with neighboring countries – Argentina, Uruguay and Paraguay – are reviewed.

It seeks, therefore, to contribute to reflection and decision-making regarding future strategic decisions to strengthen the health workforce in this sub-region of the Americas and spark discussions about carrying out joint activities that will promote, bolster and develop the workforce in the region.

#### **METHOD**

An initial survey in 2005 identified the main human resources challenges in the region of the five challenges noted for the Region of the Americas as a whole, regulating the displacement of health workers within countries and international migration in order to ensure health care for all populations was considered the least developed. It is worth noting that this challenge is considered to have been achieved in the following terms: Despite displacement and migration of health workers across countries and regions, these trends are known and mechanisms exist to adjust the number of workers and their training; furthermore, incentive systems and job creation make it possible to compensate for these movements so that health care services in more needy areas are not undermined.

The challenge deemed as having the best results in the region in the assessment performed in 2005 was the availability of health workers in relation to population/users, to provide the population with equal access to health services. This initial characterization of the main challenges was the baseline, afterwards incorporated into the regional goals, enabling quantitative measurement of the progress made in each region.

The experience reported herein is based on the use of a methodology developed under the coordination of the Pan American Health Organization of the World Health Organization (PAHO/WHO) for consulting with countries from the Americas, summarized in a methodology handbook<sup>(8)</sup>, as well as the website www.observatoriorh.org, which updated the information sent by the Observatories for Human Resources.

To obtain a standardized methodology for treating research and existing information, PAHO disseminated a handbook with definitions and calculation formulas, which was subsequently adapted by various countries to their local realities. With this standardized methodology, the countries started measuring situations within the set of agreed goals, producing a baseline. The web page of the Observatory of Human Resources registered the starting points of these measurements in 22 countries, using this uniform methodology<sup>(9)</sup>.

It is necessary to mention that some goal indicators are not quantitative in nature, and were assessed by a consensus of experts. For example: Goal #1 is assessed by the density ratio of Physicians + Nurses + Midwives, divided by the total population. Goal #5 entails a consensus of at least three experts from different institutions in relation to a set of seven questions about the role of the unit in guiding human resources policies in the country.

Argentina and Uruguay did their first baseline measurement in 2010. Paraguay and Argentina performed two measurements, the last with data from 2013, used here for comparison purposes.

The process for measuring the Regional Human Resources Goals for the period 2007-2015 is based on the five major challenges identified at the 7th Regional Meeting of the Observatories of Human Resources in Health, held in

Toronto in 2005. These challenges constitute the regional agenda for health human resources policies, and for each challenge there is a set of associated goals. The challenges and goals are as follows:

Challenge 1: Definition of long-range policies and programs to adapt the health workforce to health needs or changes in national health systems.

# Associated goals:

- 1. Human resources density ratio of 25 professionals per 10,000 inhabitants
- 2. Proportion of primary health care (PHC) physicians to exceed 40% of the total medical workforce
- Existence of primary health care physician teams, including community health workers
- 4. Ratio of one qualified nurse per physician (1:1)
- Establishment of a unit or directorate of Human Resources in Health (HRH) that is responsible for the development of policies and programs, the definition of strategic directions, and negotiation with other sectors

Challenge 2: Equitable distribution according to the health needs of the population.

# Associated goals:

- 50% reduction in the gap in the distribution of health personnel between urban and rural areas by 2015
- 70% of the primary health care workforce to have public health and intercultural competencies
- Training of 70% of the non-medical workforce
- 9. Recruitment of 30% of primary health care workers from the community

Challenge 3: Promote national and international initiatives so that developing countries can retain their health workforce and avoid gaps in its distribution, or, in short, regulate the displacement and migration of health professionals.

# Associated goals:

- 10. Adoption of the International Code of Practice or development of ethical norms on the international recruitment of health care workers
- 11. Establishment of a policy for self-sufficiency in meeting human resources in health needs
- 12. Mutual agreements and implementation of mechanisms for recognizing foreign-trained professionals

Challenge 4: Generate healthy work environments to ensure the delivery of quality health services for all of the population.

#### Associated goals:

- 13. Reduction of precarious employment by 50%;
- 14. Adoption of protection policies for health workers that include programs to reduce work-related diseases and injuries
- 15. Managerial training, including ethics, for at least 60% of public health personnel to prepare them for competence
- 16. Creation of effective negotiation mechanisms and legislation to prevent, mitigate or resolve labor conflicts and ensure essential services

Challenge 5: Develop mechanisms of cooperation between training institutions and health services institutions to train professionals in primary health care.

# Associated goals:

- 17. Reorientation of education toward primary health care in at least 80% of health science schools and incorporation of inter-professional training strategies
- 18. Adoption of specific programs to recruit and train students from underserved populations, with an emphasis on low-income and indigenous communities, in at least 80% of health science schools
- 19. Attrition rate in schools of medicine and nursing not to exceed 20%
- 20. 70% of educational institutions to be accredited by a recognized body

The Observatories of the countries, supported by governments and PAHO, agreed to perform a number of queries to systematize their research and permanent information systems, feeding into the indicators that are part of these 20 regional goals. It should be noted that due to the weaknesses of existing information systems, in many cases the data was supplemented with research. Each country also had the option of not completing all the indicators when no information was available.

#### **RESULTS**

Although a signatory to the Toronto Call to Action, Brazil did not immediately join the goal measurement process, unlike Costa Rica, El Salvador, Honduras, Guatemala, Nicaragua, Panama, the Dominican Republic, Bolivia, Colombia, Chile, Ecuador, Peru, Venezuela, Argentina, Uruguay and Paraguay.

Only in 2012, after the first measurement process had been completed, Brazil, under the coordination of the Human Resources Technical Unit in PAHO, decided to perform its first measurement, at the same time that the aforementioned countries were finishing their second measurement.

One of the reasons Brazil did not participate in the first goal achievement measurement process was the complexity of using national indicators, due to the levels of aggregation of information and their relatively low representation of regional disparities in the country. This was also the argument used by Argentina for not doing the second measurement, alleging that it would only be meaningful after the completion of a process in which the national aggregate would be the sum of the provincial measurements.

Regardless of these issues, Brazil completed its first measurement in 2013, despite the deficiencies and low representativeness of the national aggregate, taking into account, however, that in future measurements the aggregate data could indicate trends in different situations, for each of the five Toronto meeting challenges in the area of Human Resources in Health.

For comparing and measuring the progress of the Regional Human Resources Goals, the following tables use data provided by the Observatories in the countries, summarized on the web page www.observatoriorh.org.

**Challenge 1:** Definition of long-range policies and programs to adapt the health work force to health needs and changes in national health systems (Table 1).

**Challenge 2:** Equitable distribution of the health workforce, according to the health needs of the population (Table 2).

Challenge 3: Promotion of national and international initiatives so that developing countries can retain their health

workforce and avoid gaps in its distribution, or, in short, regulate displacement and migration of health professionals (Table 3).

**Challenge 4:** Creation of healthy work environments to ensure the provision of good quality health services for all of the population (Table 4).

**Challenge 5:** Create mechanisms of cooperation between educational institutions and health services to train professionals in primary health care (Table 5).

Table 1 - Percentage achieved by the Southern Cone countries, regarding the goals from Challenge 1 - PAHO, 2013.

Goals/Countries	Argentina	Brazil	Paraguay	Uruguay
1. HR density ratio - 25 professionals/10,000 inhabitants	100	100	100	100
2. PHC physicians exceeding 40% of the total medical workforce	100	76.3	51	83.3
3. Existence of PHC teams, including community health workers	89	91.4	81.4	12.9
4. Qualified nurse/physician ratio of 1:1	21	90	93	33

Table 2 - Percentage achieved by the Southern Cone countries, regarding the goals from Challenge 2 - PAHO, 2013.

Goals/Countries	Argentina	Brazil	Paraguay	Uruguay
5. Existence of an HRH unit responsible for policies and programs, strategic directions and negotiation with other sectors	85	93.7	79.4	100
6.50% reduction of the gap in the distribution of health personnel between urban and rural zones by $2015$	No comparative information	50	No comparative information	Not measured
7. 70% of the PHC health workforce to have public health and intercultural skills	89	Not measured	66.6	Not measured
8. Training of 70% of the non-medical workforce	Not measured	Not measured	61.2	Not measured
9. 30% of the PHC workforce to be recruited in the community	Not measured	90	93	33

Table 3 - Percentage achieved by the Southern Cone countries, regarding the goals from Challenge 3 - PAHO, 2013.

Goals/Countries	Argentina	Brazil	Paraguay	Uruguay
10. Adoption of the International Code of Practice or development of ethical norms on the international recruitment of health workers*	Not measured	50	Not measured	100
11. Policy of self-sufficiency in meeting HRH needs	60	50	50	100
12. Mutual agreements and implementation of mechanisms for the recognition of professionals trained abroad	100	100	100	100

<sup>&#</sup>x27;Global Code of Practice on the International Recruitment of Health Personnel, approved by WHO in 2010. http://www.who.int/hrh/migration/code/practice/es/

Table 4 - Percentage achieved by the Southern Cone countries, regarding the goals from Challenge 4 - PAHO, 2013.

Goals/Countries	Argentina	Brazil	Paraguay	Uruguay
13. Reduction of precarious employment by 50%	Not applicable*	Not applicable*	47	100
14. Adoption of protection policies for health workers that include programs to reduce work-related diseases and injuries	33	75	50	100
15. Managerial training, including ethics, for at least 60% of public health personnel to prepare them for competence	83	100	83	100
16. Creation of effective negotiation mechanisms and legislation to prevent, mitigate or resolve labor conflicts and ensure essential services	100	100	75	100

 $<sup>^{\</sup>ast}$  Measurable goal only from the  $2^{nd}$  Measurement on.

 Table 5 - Percentage achieved by the Southern Cone countries, regarding the goals from Challenge 5 - PAHO, 2013.

Goals/Countries	Argentina	Brazil	Paraguay	Uruguay
17. Reorientation of training toward PHC in at least 80% of health sciences schools and incorporation of strategies to train multi-professionals	8	77	42.3	100
18. At least 80% of health sciences schools to adopt specific programs to attract and train students from underserved populations, with an emphasis on low-income communities and indigenous populations	Not measured	Not measured	25	100
19. Attrition rate in schools of medicine and nursing not to exceed 20%	Not measured	91.8	57	67
20. 70% of training institutions be accredited by a recognized body*	100	100	22.8	100

\*In the case of Brazil, accreditation by SESu/MEC

# **DISCUSSION**

Nearly a decade has passed since the 7th Regional Meeting, and there have been few studies seeking to understand the migratory movements of health workers throughout the Region of the Americas. In the Southern Cone, the issue

has been addressed within Mercosur, with some advances in formulating international agreements to regulate the professional activities of workers between countries.

Although Uruguay is the only country in the Southern Cone sub-region that has achieved all of the goals, sugges-

ting it has fully met Challenge 3, the other countries are moving toward reaching the previously measured goals in the next two years.

The countries in the region, especially Brazil, conduct studies through the Network of Observatories of Human Resources aimed at mapping and learning about the internal migration trends of the main health professions. In Brazil, the Ministry of Health has invested in building a platform that will enable the internal migration of health workers to be monitored, based on the information generated.

With respect to Challenge 2, which deals with the equitable distribution of the workforce according to the health needs of the population, was considered the most developed at the time of the first assessment in 2005. Insofar as it can be compared, there is a small amount of information available for measuring the performance of this group of countries.

Brazil tends toward improvement in its position, since the implementation of the programs Enhancement Program for Primary Care Professionals (PROVAB) and More Doctors, but it is still far from solving the issues, due to its magnitude and complexity. Initiatives to assess the results of these programs will be incorporated into the future analysis of these goals for Brazil.

# **CONCLUSION**

The consensus process for the Regional Human Resources Goals, endorsed by the health ministers of the Americas at the Pan American Sanitary Conference in 2007, brought about increased awareness of health workforce issues in the countries of the Americas. At the same time, this increased awareness, combined with the establishment of concrete, detailed goals and parameters, set in motion a process for comparing and overcoming widely diagnosed problems. This process, which could be called

benchmarking as mentioned above, was monitored by the countries with positive results. Although it is impossible to attribute a cause and effect relationship between diagnosis of problems, setting action goals and translating them into effective policies, it can be seen that the countries are making efforts in the right direction.

At the same time, not all the countries are moving forward in achieving the challenges with the same momentum and success in every area, not only in the Southern Cone countries, examined in detail here, but also in other regions of the Americas. In the case of the larger and more diverse countries, such as Brazil, which has a federative structure, the fact that there are national goals that do not sufficiently reflect regional disparities can be considered a limitation.

Similar to what happened in Argentina, adoption in Brazil by the states and, to a lesser extent, by state capitals and large urban centers, of the methodology used in this goal measurement process, could be relatively useful as a complementary management tool to: improve the quality of the data, due to its disaggregation, and enable comparative analyses between Brazilian states and between different cities; lead to improvement by the states and cities of their tools and mechanisms to collect and process data and information; and contribute to the implementation of a monitoring and assessment culture in the units responsible, at the state and municipal levels, for the planning, formulation and implementation of labor management and health education policies.

In Brazil, the next challenge in this field will focus on identifying regional differences and creating goals for sub-national units. However, this work by the states and cities is not yet feasible. Therefore, the PAHO office in Brazil, through its Technical Unit for Human Capabilities in Health, will continue performing the measurements, according to the methodology established for this purpose.

#### **RESUMO**

Objetivo: Relatar a experiência sobre o uso de pesquisas e sistemas de informação para apoiar as políticas nacionais de recursos humanos por meio de *benchmarking* entre diferentes países, com comparações ao longo do tempo ou entre países ou regiões semelhantes. **Método:** A Organização Pan-Americana da Saúde (OPAS) promoveu em 2007 um conjunto de metas para todos os países das Américas para aprimorar a situação dos recursos humanos para a saúde, utilizando uma metodologia uniforme e um processos de pesquisa pelos Observatórios de Recursos Humanos. Resultados: A análise se centra no avanço dos principais desafios nos países do Cone Sul, com especial ênfase no caso do Brasil, mostrando melhorias na distribuição de profissionais nos territórios. Conclusão: A experiência mostrou como a pesquisa e o uso dos sistemas de informação pode impulsionar a ampliação das melhores práticas de formação, fixação e desenvolvimento da força de trabalho em saúde nas Américas.

#### **DESCRITORES**

Recursos Humanos em Saúde; Pessoal de Saúde; Política de Saúde; Sistemas de Informação.

Objetivo: Relato de experiencia sobre el uso de investigaciones y sistemas de información para ayudar en la formulación de políticas nacionales de Recursos Humanos por medio de benchmarking entre distintos países, con comparaciones a lo largo del tiempo o entre países o regiones similares. Método: La Organización Panamericana de la Salud (OPAS) promovió en 2007 un conjunto de metas para todos los países de las Américas para mejorar la situación de los recursos humanos para la salud, utilizando una metodología uniforme e investigaciones a través de los Observatorios de Recursos Humanos. Resultados: El análisis se enfoca en el avance de los principales desafíos en los países del Cono Sur, con especial énfasis en el caso de Brasil, mostrando progreso en la distribución de profesionales en los territorios. Conclusión: La experiencia muestra como las investigaciones y los sistemas de información pueden impulsar la expansión de las mejores prácticas de formación, fijación y desarrollo de la fuerza de trabajo en salud en las Américas.

### **DESCRIPTORES**

Recursos Humanos en Salud; Personal de Salud; Política de Salud; Sistemas de Información.

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