

PERUVIAN HEALTHCARE SYSTEM: A SCOPING REVIEW

Lesgui Alviz Ñahui¹, Mayder Liliana Condori Huillca¹, Raul Edison Luna Lazo^{2*}, Mariana Mengarda², Anahí Karina Cardona Rivero¹, Fernanda Stumpf Tonin², Fábio Seigi Murakami²

¹Postgraduate Programme in Health Policies and Management, Department of Health Science, Universidad Nacional de San Antonio Abad del Cusco, Campus Universitario, Paraninfo, 08000, Cusco, Cusco, Peru;

²Postgraduate Programme in Pharmaceutical Sciences, Department of Pharmacy, Universidade Federal do Paraná, Campus Universitario, Jardim Botânico, 80210-170, Curitiba, PR, Brazil

*Correspondence:

Raul Edison Luna Lazo

E-mail: raulunalazo@gmail.com

Start date: March 1st, 2021

Anticipated completion date: September 30th, 2021

ABSTRACT

Introduction: The main objective of the health systems is to meet the health needs of the population in general, but for this the system must have adequate financing and supply support to cover the entire population in question and check quality, efficiency, equity services, safety and sustainability. However, considering the segmented Peruvian health system, this makes it more deficient in comprehensive care for the population due to the duplication of functions, misuse of its resources, absence of complementary services. Due to the COVID-19 pandemic, this deficiency in the Peruvian health system became more evident owing to the high number of deaths and its state of collapse, combining these factors this scope review aims to map the current state of the Peruvian health system, its structure, synthesize data on the performance of the health system (in terms of access, coverage and quality of health services) and identify the main public health policies available.

Methods and analysis: This scoping review will utilize the PRISMA extension for Scoping Reviews (PRISMA-ScR) instrument. Studies reporting on qualitative and/or quantitative data from any world region will be considered. For inclusion, studies must examine Peruvian health system outcomes at the Map the structure of the health system in Peru; synthesize data on the performance of the health system (in the aspects of access, coverage, and quality of health services); summarize the main public health policies available. The searches will be carried out in 5 electronic

databases. We will carry out the searches and application of inclusion / exclusion criteria according to the PRISMA-ScR flow chart. No evaluations of items quality will be carried out, since the purpose of this scope review is to synthesize and describe the Peruvian health system. After extracting all the data, we will describe the Peruvian health system in which it will be possible to elucidate some potential problems that must be urgently addressed by the Peruvian authorities. The analysis will synthesize based on the evidence found and identify the information gaps on the Peruvian health system.

Keywords: Health system, Health policies, Healthcare, Scoping review, Peruvian

BACKGROUND

Health systems represent the set of organizations, institutions, and resources whose main objective is to guarantee the satisfaction of the perceived and not perceived health needs of the general population (1–4). A health system requires financing, supply, and communication under a social structure, which allows it to respond to health expectations by adequately complying with the parameters of access, coverage, efficiency, equity, quality, safety, and sustainability in situations that require it, such as illness and disability (5,6). The proper functioning of health systems is defined according to their ability to respond to the population and this determines them as good or precarious (7,8).

The Peruvian health system is made up of the public and private sectors, which independently incorporate a set of vertically integrated financing and service delivery mechanisms (9,10). The public sector is constituted by an indirect contributory regime (Ministry of Health (MINSA)) and the direct contributory one where social security is found (EsSalud), within the indirect contributory regime the state provides health services to the poorest population to on the other hand, through the comprehensive health insurance (SIS), EsSalud has two subsystems: traditional provision and private provision (EPS) (11,12). The Armed and Police Forces, including their family members, receive health services through their own health subsystem made up of the Health Services of the Armed Forces (FFAA) and the National Police of Perú (PNP) (13). The private sector is divided into profit-making, where the benefits of health services provided are clearly private, and non-profit represented mainly by non-profit civil associations, such as Non-Governmental Organizations (NGOs) that offer health services from free to the poorest population (5,9,14). The administration of these 5 entities makes the Peruvian health system decentralized with the following percentages of care: MINSA that offers health services for 60% of the population, EsSalud covers 30% and the armed forces, PNP and the private sector they provide health services to only 10% of the Peruvian population (13).

However, the segmented system that the current Peruvian health system still follows makes it more prone to deficiencies such as: The duplication of functions, the misuse of its resources, the absence of complementary services and the inefficient comprehensive care (5,11). The COVID-19 pandemic, a disease caused by the SARS-COV2 virus, revealed the precariousness of the Peruvian health system, causing thousands of deaths within the country (15,16). The crisis and the collapse of the Peruvian health system in the face of these adverse events requires a review and analysis of the deficiencies detected, since Peru is being considered one of the most affected countries in this pandemic, having one of the highest mortality rates in Latin America and the world (15–20). Satisfaction of the health needs of the Peruvian population is also linked to other conditioning factors, such as socioeconomic and political (21–24). Therefore, responsibility in health is also the competence of institutions in other sectors (7,25).

METHODS / DESIGN

PROTOCOL

The methods for this review have been developed based on the PRISMA guidelines for Scoping Reviews (PRISMA-ScR) and the Joanna Briggs Institute (JBI) guidelines.

PROTOCOL AND REGISTRATION

The protocol must be registered in the Open Science Framework

RESEARCH QUESTIONS

The main objective of this work is to answer the following question:

- What is the current state of the Peruvian health system?

MAIN OUTCOMES

- Map the structure of the health system in Peru.
- Synthesize data on the performance of the health system (in the aspects of access, coverage, and quality of health services).
- Summarize the main public health policies available.

STUDY DESIGN

Scoping review

ELIGIBILITY CRITERIA

INCLUSION CRITERIA

- Scientific articles on the Peruvian health system that evaluate, describe, or compare aspects of coverage, accessibility, quality of care and health management policies;
- Scientific articles on the Peruvian health system published since 2000 to provide a broader panorama since the last health reforms in Peru.

EXCLUSION CRITERIA:

- Studies published in non-Roman characters (for example, Chinese and Japanese);
- Articles that do not provide sufficient data on the performance of the Peruvian healthcare system;
- Conceptual articles;
- Narrative reviews;
- Articles referring to healthcare systems outside Peru.

SEARCH METHODS

In this scoping review, two independent reviewers will perform all main steps independently. Discrepancies will be conciliated in consensus meetings using a third author.

ELECTRONIC SEARCH

The searches will be carried out on the PubMed, Scopus, Web of Science, SciELO and LILACS scientific electronic databases.

SEARCH STRATEGY

The search will take into consideration the query of the terms "health system", "health care" and "health regulation" in Peru with their respective synonyms combined with Boolean operators AND or OR. The search will be completed manually from the reference list of included studies.

Search strategies will be tailored according to search platforms, such as the next example (table 1):

Table 1. Search strategy.

DATABASE	SEARCH STRATEGY
PubMed	(Peru[TIAB] OR Peruvian[TIAB] OR Peru[MH]) AND (("health system"[TIAB] OR "health care system"[TIAB] OR service[TIAB] OR program[TIAB]) AND (quality[TIAB] OR indicator*[TIAB] OR metric*[TIAB] OR measure*[TIAB] OR efficiency[TIAB] OR efficient[TIAB] OR access[TIAB] OR equity[TIAB] OR performance[TIAB] OR appropriateness[TIAB] OR sustainability[TIAB] OR responsiveness[TIAB] OR productivity[TIAB]))

SEARCH OF GRAY LITERATURE

The gray literature search will be obtained from the information contained in documents such as: the Peruvian Health Situation Analysis (ASIS), directives, ministerial resolutions, and official websites of Peruvian health institutions.

STUDY RECORDS

DATA MANAGEMENT

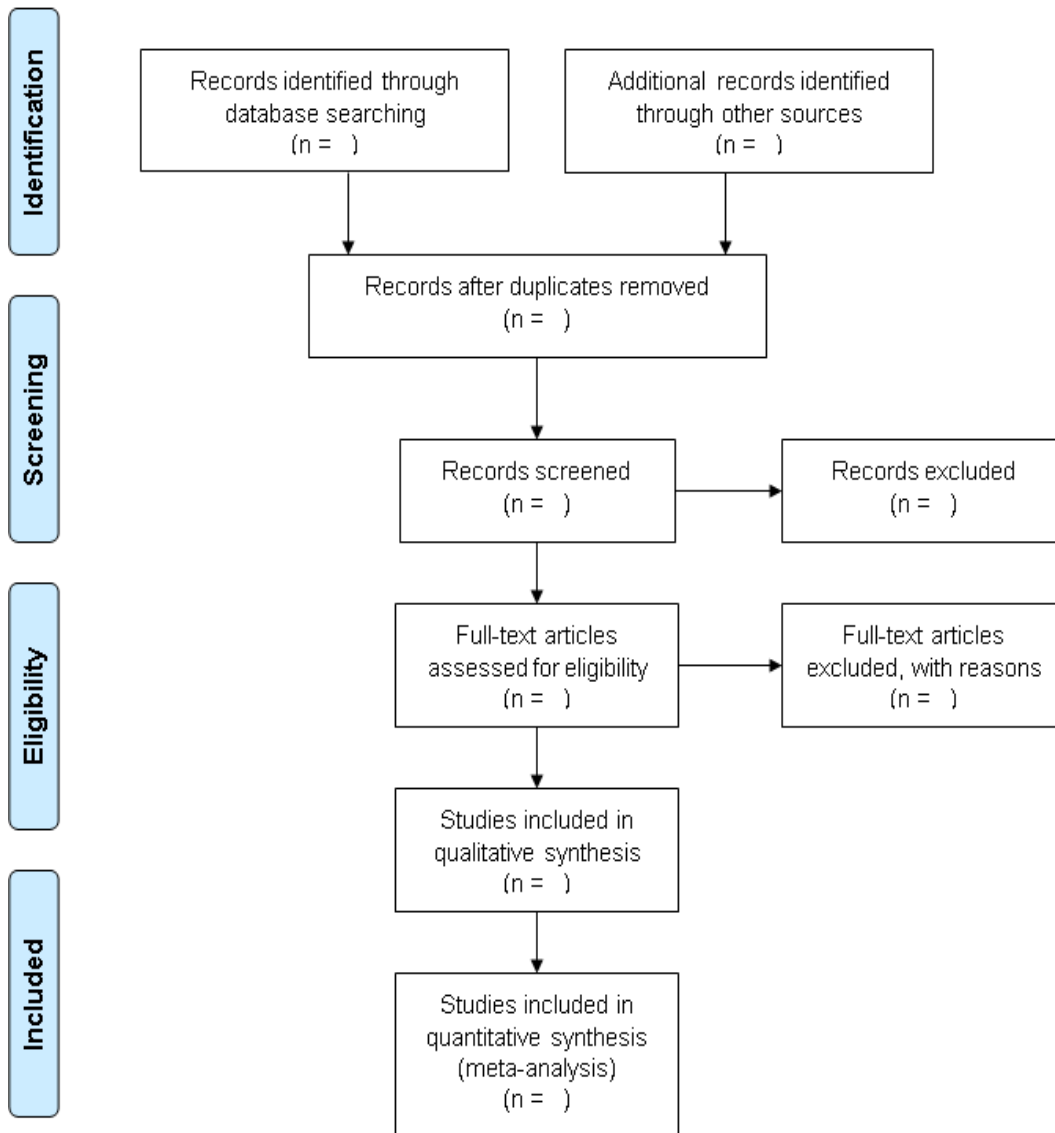
Once the search strategies have been implemented, all the references found and fully identified will be imported into the "Mendeley" bibliographic references and research documents manager, where they will be combined and eliminated the duplication of the search results in the different electronic databases.

SELECTION PROCESS

The selection process will be carried out by two reviewers who will independently examine the titles and abstracts of studies obtained, subsequently independently evaluate the full text of them, to continue corroborating compliance with the established eligibility criteria. The studies that will be excluded within a table that summarizes the characteristics of the excluded studies, where the reasons for their exclusion will be indicated. If there are possible discrepancies in the criteria and judgments of the reviewers, this will be resolved with the participation of one of the reviewers on our team.

The PRISMA-ScR flow chart diagram (Fig. 1) will allow us to carry out an adequate identification, selection, eligibility and inclusion of scientific articles.

Figure 1. Prisma-ScR flow chart considered for selection of articles.



DATA COLLECTION PROCESS

The data extraction and management of the included studies will be carried out by the same reviewers of the selection stage using a data extraction form, which will be prepared according to the data that answer the research question posed, the existence of some disagreements between the reviewers at this stage will also be resolved with the participation of a third reviewer, who will act as arbitrator in case of not resolving said disagreements and when the situation warrants, the authors will be contacted to obtain more information on the articles.

DATA ELEMENTS

Data will be extracted on the following:

- Publication details: title, journal, author, year, city, type of publication and source of funding.
- Design: type of study, study objectives and eligibility (inclusion and exclusion criteria).

DATA SYNTHESIS

The data extracted will be organized and presented in a way that responds to the points of coverage, accessibility, policies in management and quality of care of health services in the Peruvian health system, which will allow the information to be synthesized through a synthesis narrative and build a conceptual mapping with the main characteristics of the services.

DISCUSSION

This scoping review will evaluate the current situation of the Peruvian health system status within the aspects of coverage, accessibility, quality of care and policies in health management, will provide results individually and articulated about its performance over the years before the population health needs.

The segmented management of the Peruvian health system has proven to be a critical point in practice, taking root in social problems, so that in the face of regular and adverse situations they show mistakes, as was the case in the pandemic caused by the SARS-COV2 virus.

Therefore, carrying out this scoping review of the Peruvian health system will describe the current situation of the Peruvian health system and the results could contribute to improving the failings of the health system in the face of the population, so this study will be of interest for government health institutions in Peru and health professionals around the world.

REFERENCES

1. World Health Organization (WHO). What is a health system?. 2005; [cited 2021 Jan 4]. Available from: <https://www.who.int/features/qa/28/es/>
2. Law that establishes measures to strengthen the national health authority, in order to guarantee the prevention, control of risks and diseases of the population- LAW- N°30423. [cited 2021 Jan 31]. Available from: <http://busquedas.elperuano.pe/normaslegales/ley-que-establece-medidas-para-fortalecer-la-autoridad-de-sa-ley-n-30423-1370085-1/>
3. Hill, K. Population and Development Review. 2001; 373-376, 27(2). [cited 2021 Jan 31]. Available from: <http://www.jstor.org/stable/2695219>
4. Blendon RJ, Kim M, Benson JM. The public versus the World Health Organization on health system performance. Health Aff (Millwood). 2001; 20(3):10-20.
5. Lazo O, Alcalde J, Espinoza O. The health system in Peru, situation and challenges. Peru: Peruvian University Cayetano Heredia. 2016 Dec; [cited 2021 Jan 31]. Available from: <http://web2016.cmp.org.pe/wp-content/uploads/2016/12/libroSistemaSaludPeru-.pdf>
6. World Health Organization (WHO). World Health Report 2000 - Improving the performance of health systems. [cited 2021 Jan 31]. Available from: <https://www.who.int/whr/2000/es/>
7. Sánchez-Moreno F. The national health system in Peru. Rev Peru Med Exp Public Health. 2014 Oct; 31(4):747-53.
8. World Health Organization (WHO). Regional Office for Europe, European Observatory on Health Systems and Policies, Busse, Reinhard & Blümel, Miriam. Germany: Health system review. World Health Organization. Regional Office for Europe. 2014; [cited 2021 Jan 31]; Available from: <https://apps.who.int/iris/handle/10665/130246>
9. Cetrángolo O, Bertranou F, Casanova L, Casalí P, International Labour Office. The Peruvian health system: current situation and strategies to guide the extension of contributory coverage. Lima: OIT; 2013.
10. Ministry of Health (MINSA). Law N° 27813. Law of the National Coordinated and Decentralized Health System. 2002 Aug 12; [cited 2021 Jan 31]. Available from: <https://www.gob.pe/institucion/minsa/normas-legales/254703-27813>
11. Alcalde-Rabanal JE, Lazo-González O, Nigenda G. The health system of Peru. Public Health Mex. 2011;53 Suppl 2: s243-254.
12. Jumpa-Armas D. Universal health insurance in Peru: an approximation to 10 years of its implementation. Rev Fac Med Humana. 2019 Jul; 19(3):75-80.

13. World Health Organization (WHO). The Perú. [cited 2021 Jan 31]. Available from: <https://www.who.int/workforcealliance/countries/per/es/>
14. Arrieta A, Hakim G, Pérez-Zárate C, Siu-Guillén H, Neves-Catter C, Qamar A. Healthcare Management Americas 2018 survey on the culture of patient safety in Peru. *Medical certificate Peru*. 2019 Oct; 36(4):309-11.
15. Padilla Machaca PM, Cárdenas Ramírez BE, Cabrera Cabrejos MC. [Impact of COVID-19 on liver disease and the public health in Peru]. *Rev Gastroenterol Peru Organo Of Soc Gastroenterol Peru*. 2020 Jun; 40(2):162-72.
16. Huamani NB, Arotoma MN, Gavilán JO, Quiroz PL, Medrano ML. Confirmed cases and mortality from COVID-19 in South America: a comparative analysis per million inhabitants. 1. 2(3). Peru: National University San Cristóbal de Huamanga; 2020 Jul 20; [cited 2021 Jan 20]; Available from: <https://halshs.archives-ouvertes.fr/halshs-03093520>
17. Munayco C, Chowell G, Tariq A, Undurraga EA, Mizumoto K. Risk of death by age and gender from CoVID-19 in Peru, 2020 March-May. *Aging*. 2020 Jul 21;12(14):13869-81.
18. Pan- American Health Organization (PHO) / World Health Organization (WHO). Epidemiological Update Coronavirus disease (COVID-19). Washinton, D.C. 2020; [cited 2021 Jan 20]. Available from: [//www.paho.org/es/file/71105/download?token=t3ekzUeP](http://www.paho.org/es/file/71105/download?token=t3ekzUeP)
19. Countries with the most deaths from coronavirus. Statista. [cited 2021 Jan 20]. Available from: <https://es.statista.com/estadisticas/1095779/numero-de-muertes-causadas-por-el-coronavirus-de-wuhan-por-pais/>
20. PAHO-Americas Regional COVID-19 Dashboard. [cited 2021 Jan 31]. Available from: <https://who.maps.arcgis.com/apps/opsdashboard/index.html#/c147788564c148b6950ac7ecf54689a0>
21. Casali P, Pena H. Organization International from work Workers independent and social security in Peru 1907. Perú: OIT, 2012; [cited 2021 Jan 31]. Available from: <http://bvs.minsa.gob.pe/local/minsa/1907.pdf>
22. Sánchez-Moreno F. Health inequity affects development in Peru. *Rev Peru Med Exp Public Health*. 2013 Oct; 30(4):676-82.
23. Munayco C, Ulloa G. Ministry of Health (MINSA). Analysis of the Health Situation of Peru 2019. Peru: National Center for Epidemiology, Disease Prevention and Control (CDC). 2019 Dec; [cited 2021 Jan 31]. Available: https://www.dge.gob.pe/portal/docs/asis/Asis_peru19.pdf

24. Pan-American Health Organization (PHO) / World Health Organization (WHO). Controlling the pandemic requires convergence and articulation between health, economic, social and productive policies. Washington, DC. 2020; [cited 2021 Jan 31]. Available from:

https://www.paho.org/per/index.php?option=com_content&view=article&id=4603:cepal-y-ops-controlar-la-pandemia-requiere-de-convergencia-y-articulacion-entre-las-politicas-de-salud-economicas-sociales-y-productivas&Itemid=0

25. Velásquez A, Suarez D, Nepo-Linares E. Health sector reform in Peru: Law, governance, universal coverage and response against health risks. *Rev Peru Med Exp Public Health*. 2016 Jul; 33(3):546-55.